MOBILE INSURANCE AND RISK FRAMEWORK IN GHANA

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National Insurance Commission (NIC)
P.O. Box CT 3456
67 Independence Avenue, Insurance Place
Cantoments, Accra
T:+ 2333020237300/1
F:+ 233 3020237248/246369
E: info@nic.org
I: www.nicgh.org

Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH
GIZ Office Accra
P. O. Box KIA 9698
7 Volta Street
Airport Residential Area
Accra - Ghana
T: +233 (0)302 – 760 448 / 777375
F: +233 (0)302 – 773 106
E: promigh@giz.de
I: www.giz.de

Programme/Person responsible for publication:
Angela Armah, Technical Advisor PromIGH
Branko Wehnert, Project Manager PromIGH

Author:
Advision Finance
Amarante Consulting
PromIGH

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All the opinions expressed in this study as well as any omissions and errors remain solely ours.

List of acronyms and abbreviations

ATL	Above-the-line. Communications that use media that are broadcast and published to mass audiences (radio, TV...)
ARPU	Average Revenue per User, which is a measurement of the level of usage per subscriber and equals Minutes of Usage (MOU) x Average Revenue per Minute (ARPM)
BoG	Bank of Ghana
BTL	Below-the-line. Communications that use media that are more niche focused (brochures, flyers, and direct marketing campaigns at agent premises...)
COCA	Cost of Client Acquisition
MNO	Mobile Network Operators e.g. Airtel, Tigo, MTN
MOU	Minutes of Usage
NIC	National Insurance Commission
NCA	National Communication Authority
SIM cards	Subscriber Identity Module is an integrated circuit that is intended to securely store the international mobile subscriber identity and the related key used to identify and authenticate subscribers on mobile telephony devices.
TSP	Technology Service Provider
VAS	Value Added Services

1. Executive Summary

This study has been commissioned by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ), on request of the National Insurance Commission (NIC) which is the regulatory and supervisory authority of the insurance sector in Ghana. The support is part of a component of the German and Ghana Governments' 'Programme for Sustainable Economic Development (PSED)' which is dedicated to promoting the development of insurance in Ghana (PromIGH) Ghana. The objective of the study was to carry out a detailed risk assessment of the mobile insurance landscape in Ghana and develop a risk assessment framework, to be used for improving the regulatory guidelines for m-insurance products in Ghana.

Mobile insurance (m-insurance) is an innovative line of insurance products, whereby the mobile networks are used to deliver one or multiple components[1] of insurance for the mass market. In Ghana, m-insurance plays an important role in the microinsurance sector. Approximately 60% of lives (as of 2014) are insured by microinsurance products delivered via mobile insurance. Mobile insurance models could be either strategic (Mobile Network Operator (MNO) offers insurance under its own branding) or transactional (MNOs provide the platform only for a purely transactional role[2]). The present study is focused on the analysis and risk assessment of the strategic model for the following reasons:

a. Products via the strategic m-insurance model are economically more significant for the microinsurance sector in Ghana (over 5m GHS in premiums in 2014[3]) than the transactional model.

b. In a strategic model the regulatory factors are more complex, due to the active role played by multiple stakeholders in product development, delivery and maintenance: MNOs, Technical Service Providers (TSPs), and financial institutions. Hence, close collaboration among regulators (insurance, mobile network and banking regulators) is required in order to ensure adequate consumer protection, client value and financial sustainability for the products.

c. In a transactional model[4], the MNO plays a more passive role in simply providing a platform for different insurance processes, such as premium collection and claim payment. Hence, the regulatory environment and regulations developed by the insurance regulator may be sufficient for this model.

1, 2, 4 Leach, J. & Ncube, S., 2014
3 NIC, 2015

d. In a strategic model, the insured customers and potential customers would perceive the product to be owned by the MNO as the product would be primarily branded and implemented by the MNO. Hence, there may be a weaker relationship (and hence less perceived accountability) between the insurance companies and the insured customers. This increases the importance of having suitable regulations in place for consumer protection.

Our landscape study reveals that as of June 2015, there are approximately 2.7 million policyholders for m-insurance products. Three MNOs (Tigo, Airtel, MTN) are currently active in the market and provide strategic m-insurance to their customers. Based on interviews, there is an appetite for other MNOs to launch m-insurance products in the future and some appetite among the three already active MNOs to improve the existing product line. The three active insurers in the market are Prudential, Enterprise Life and UT Life. Technical service providers (BIMA and MicroEnsure) provide support for most of the technical and operational areas relevant for the implementation, such as product design, pricing, marketing, sales, customer service, claims handling etc. One IT service provider (MFS Africa) is active in the market and provides the technical platform required for the MTN product. All the existing m-insurance products are relatively simple life-health insurance products, with monthly coverage, contingent on subscribers either topping-up airtime by specific amounts every month and/or paying monthly premiums, which are deducted automatically on a monthly basis, either from airtime deduction or from mobile wallets. There have been 7 m-insurance products launched in Ghana since 2010 and 6 products still exist. Some of the loyalty-based products[5] are in the process of being transitioned to paid products[6].

Based on the analysis of the m-insurance sector in Ghana, we identified different sources of risks which relate to client value, distribution, prudential, marketing, third-party default, IT and technology systems and legal aspects. Quantitative and qualitative data related to the m-insurance risks were analysed and converted into risk scores for the different categories. The report summarises the risk framework for the m-insurance products and the overall m-insurance sector in Ghana.

In this report we are also making specific recommendations on how the defined risk scoring and assessment model can be used by the insurance regulator (NIC), together with other regulatory bodies and practitioners (Bank of Ghana, National Communication Authority, insurers, MNOs, TSPs) to develop suitable regulatory guidelines, best-practice product development, product approval, risk assessment, product improvements. The risk framework also helps the insurance regulator to take any corrective action as and when required. As outlined later in this report, we will define a set of quantitative and qualitative measures of key performance indicators that will help the regulator measure the performance of a product and make suggestions for improvement to the providers when a product does not meet expectations.

Lastly, we are making recommendations on the way forward for practitioners to develop a sustainable economy for m-insurance activities. Through strong cooperation between regulatory bodies, clear monitoring (pre and post launch) of m-insurance products and adequate customer awareness and sensitisation programs, m-insurance can continue growing in a market where the potential demand for such products has proved to be strong.

5 The loyalty-based insurance is a model whereby MNOs pay premiums on behalf of clients
6 In the paid model, clients pay themselves for the premium

2. M-insurance models

Mobile insurance (m-insurance) can be broadly defined as any type of insurance (typically micro-insurance) product, whereby the mobile distribution channel is used to deliver a particular component of the insurance value chain or several or most components of the value chain. As described above, m-insurance can be either strategic or purely transactional. In a strategic model, the mobile network operators (MNOs) effectively 'own' the product and offer it to their subscribers, either on a free or paid basis. In a purely transactional model, the MNO would only be the transactional platform for delivery of some or many components in the value chain. In the transactional model, the product would be perceived and branded as a product delivered by other stakeholders (such as the insurance company itself) and the MNO would be carrying out a purely transactional role. An example of a transactional model is the model followed by Safaricom (M-Pesa) for the Kilimo Salama weather-index insurance product in Kenya, whereby the MNO's role is to provide a platform for premium and claim payments only, but the product is not 'owned' by the MNO. Instead it is owned by Kenya Seed Company, which distributes the product and by the technical service provider (ACRE), which provides operational and technical support for the product. The transactional model has typically not been prominent in Ghana due to the relatively low penetration and usage of mobile money, compared to countries like Kenya. Hence, the transactional model will not be the focus of this study.

The strategic model[7] is typically identified as mobile-based insurance products branded and offered by the MNO, which are usually different from products where the MNO is just providing the ICT platform. The strategic products require a specific risk assessment and regulatory framework as such products involve players that are not traditionally regulated by the NIC, while they are playing a significant role in the delivery of m-insurance products.

The strategic m-insurance products can be divided into 'Loyalty' and 'Paid' products.

Loyalty products, also referred to as 'Freemium'[8] products are where the MNO pays the premium itself and offers insurance to subscribers as a monthly reward to incentivize the subscribers to increase their usage (Average Revenue per User- ARPU) or to not switch to other MNO's SIM cards. Typically, monthly insurance coverage is given to subscribers only if they top up by a certain amount every month, with the coverage amount varying, depending on the level of top-up. Loyalty products may be 'opt-in' when customers are given a

7, 8 Leach, J. & Ncube, S., 2014

choice on whether they want to avail of the product or not. Alternatively the products can be 'opt-out' when customers are automatically enrolled, subsequently choosing to cancel the coverage at their will. Currently in Ghana, only the 'opt-in' model is used, whereby customers need to register for the insurance before being eligible for insurance based on the level they top up by.

Paid products are where the subscribers pay for the insurance themselves, either via mobile money or via payment, endorsed by airtime. The customers pay for the product on a monthly basis for monthly coverage. The payment may be made automatically as long as there are sufficient funds available in airtime or mobile wallet. However, the client has to make a conscious decision about the purchase of an insurance product and register for coverage via mobile phone.

The table below outlines some of the key differences between the loyalty and paid products, as per the definition used in this study:

Table 1: M-insurance Background in Ghana

FEATURE	LOYALTY	PAID
Premium payment	MNO typically pays the premium on behalf of the subscriber to the insurer.	Subscribers typically pays the premium directly, via airtime deduction or via mobile-money to the insurer.
Registration process	Subscriber may have to call to register (opt-in) or may be automatically registered and have the option to cancel (opt-out).	Subscriber would have to register voluntarily to buy the product.
Marketing process	Mostly 'low-touch' approach via MNO outlets and MNO staff. Usually not marketed strongly as product does not have to be sold to the subscriber.	Product would have to be marketed strongly, via a 'high-touch' approach e.g. field agents, call centers
Conditions for Coverage	Subscriber has to top-up by a certain minimum threshold and then based on the level of top-up, the level of cover may increase.	Subscriber may or may not have to top up by a certain threshold and he/she may be covered even if he/she has not topped up, as long as he/she has paid the premium. In some cases, a minimum amount of airtime balance should be available in order for the subscriber to become eligible for insurance coverage, before he/she can pay the premium.
Cost of insurance	Typically the premium is much lower than for paid products.	Typically the premium is higher than for loyalty products.
Type of coverage	Typically bundled products with multiple perils covered e.g. Life, Accident and Hospitalisation; typically coverage amounts are lower than for paid products.	Products may be bundled or may be exactly the same structure as loyalty products but with higher levels of cover (e.g. 'Double your cover'). Products may also be for particular perils only e.g. Life insurance only. Typically, coverage amounts are higher than for loyalty products.
Policy terms and conditions	Typically only a basic waiting period may apply. The claims process, including the process for verifying claims, may be simpler than for paid products.	Typically would have a longer waiting period, exclusions of pre-existing conditions and administrative procedures and documentation at the point of claim. Typically more verification and checks are required in the claims process, due to the higher scope for adverse-selection and fraud.

FEATURE	LOYALTY	PAID
Level of customer awareness	Usually customer awareness of the product and product features are very low, which can result in a) very low claims ratios, b) relatively little impact on the MNOs business and c) products being underpriced due to expected under reporting in the pricing assumptions (empirically deducted and non-actuary).	Usually customer awareness is higher than for loyalty products. In some cases active adverse selection[9] and fraud can also be issues.
Business impact for MNOs	Typically aimed at increasing subscription amounts (e.g. ARPU) and improving client retention.	Typically aimed at increasing subscription levels, improving client retention, commission and profit-share earnings.
Business impact for Insurers	Usually very profitable in short term due to high volumes and high margins, due to low claims ratios. However, long term profitability is exposed to the risk of products not being sustainable due to discontinuation by MNOs.	Can be profitable if large volumes are reached. Claims ratios are typically higher than for loyalty products but the products can still be profitable and sustainable based on good client value and if the operational model is sustainable.

9 Adverse selection occurs if the policyholders, who expect that they (or their family members) are likely to claim in the near future,are disproportionately more likely to buy the product compared to those policyholders who do not expect to claim in the near future.

3. M-insurance landscape in Ghana

The m-insurance landscape in Ghana has been very promising since the introduction of Tigo's products in 2010 and MTN's mobile life microinsurance products in 2011. By providing a low-cost and high volume driven channel to make insurance available for low income people and thus giving them the ability to manage their risks, m-insurance has what it takes to play a key role in reducing financial exclusion in Ghana.

Since these early launches, other MNOs have followed the path of partnering with insurance companies, technology service providers (TSP) and financial institutions to create a sound ecosystem for the provision of m-insurance products.

While most of the products in the market were loyalty-based and helped the providers gain a large base of customers, the trend observed now in Ghana is to transition to a paid model.

MNOs are key partners for insurance companies to potentially reach the significant number of customers benefiting from the large virtual and physical networks of the MNOs. With a penetration rate[10] of more than 100%, mobile subscribers outnumber by far bank account owners. This gives insurance companies the ability to more easily target and sign up customers that were not benefiting from insurance policies (mainly low income).

The emergence of mobile money has given additional benefits in using the mobile channel as it provides a payment mechanism for insured customers to either pay for their premiums or receive indemnities. Today, with more than five million mobile money accounts (see Table 2 below), the mobile money industry is a key component of the financial inclusion strategy of Ghana. We can expect mobile money subscribers to also outnumber bank accounts in a few months, as is already the case in 16 other countries in the world[11].

10 Penetration rate for mobile phones can be defined as the ratio of the number of mobile phones to the population of a country.

11 15 Sub-Saharan African countries: Cameroon, the Democratic Republic of the Congo, Gabon, Kenya, Madagascar, Tanzania, Uganda, Zambia and Zimbabwe, Burundi, Guinea, Lesotho, Paraguay, Rwanda, the Republic of the Congo and Swaziland.

Table 2: **Mobile Industry. Source GSMA**

	Ghana	Sub Saharan Africa	Global
Number of mobile money services	5	135	255
Number of mobile money accounts	More than 5mil (3mil only for MTN Mobile Money)	146mil	299mil
Active rate of MM	40%	42.4%	34.6%
Number of MM agents			2,260,000 (1.4m active)

The products currently existing in Ghana (as of June 2015) are summarised in Table 3 below:

Table 3: **M-insurance products in Ghana**

MNO	Insurer	Technical Service Provider	Bank	Type of product	Risks insured	Year Started
MTN	UT Life	MFS Africa[12]	Fidelity	Paid	Funeral (subscriber and next of kin)	2011
Tigo	Prudential	BIMA	ADB, Ecobank, UBA	Paid	Funeral (subscriber and next of kin)	2010
Tigo	Prudential	BIMA	ADB, Ecobank, UBA	Paid	Hospital-cash	2013
Tigo	Prudential	BIMA	ADB, Ecobank, UBA	Loyalty	Funeral	2010
Airtel	Enterprise Life	MicroEnsure	Ecobank, Fidelity	Loyalty	Life, Accident, Disability, Hospital-cash	2014
Airtel	Enterprise Life	MicroEnsure	Ecobank, Fidelity	Paid	Life, Accident, Disability, Hospital-cash	2015

Highlights of m-insurance landscape in Ghana

Market penetration:

- M-insurance has significant coverage in Ghana with circa 60% of lives (as of 2014) insured by m-insurance products, delivered via mobile;
- Approx. 2.7 million policyholders as of June 2015 via three MNOs;
- Approx. 5 million GHS in premiums was collected in 2014;
- Over 5 million mobile money accounts via 5 mobile money services at a 40% active rate;
- Over 100% penetration rate of mobile subscribers;

12 MFS Africa provides the technological platform only for this product.

M-insurance product:

- M-insurance strategic model is used, with both loyalty and paid type of products;
- M-insurance is an innovative line, where MNOs deliver one or multiple components of insurance value chain to mass market;
- Relatively simple types of cover e.g. life, disability, hospital-cash; monthly premium-monthly cover model, where products are renewable on a monthly basis;
- Insurance is linked to MNOs and is given to customers either as a reward for loyalty on a free basis (to incentivize subscription by certain amounts every month and customer retention) OR bought by customer on a voluntary basis and paid for via mobile money or via payment endorsed by airtime deduction;
- Loyalty-based products are usually perceived by MNOs as a temporary route towards launching paid products.; therefore, MNOs typically go through a transition phase from loyalty products ('free' insurance whereby premium is paid by MNO) to paid products (whereby premium is paid by subscriber);
- Some models are performing better than others, some products have been discontinued or are in the process/ at high risk of being cancelled.M-insurance players:
- TSPs play a major role in some models- technical, operational and partnership management;
- Insurers often play a relatively minor role, compared to TSPs and MNOs; relatively large % of premium goes to TSPs and MNOs;
- Active insurers are Prudential, Enterprise Life & UT Life;
- Active TSPs are MicroEnsure, Bima and MFS Africa;
- Active MNOs are Tigo, Airtel, MTN;
- The banks involved in the m-insurance space in Ghana are mainly the partner banks of the MNOs for their mobile money activity: Fidelity Bank, Ecobank, and UBA.
- There is an appetite for presently active MNOs to improve m-insurance products and develop new types of products (e.g. savings, income protection, maternity), as well as for one other MNO to launch m-insurance products.Regulatory framework:
- Mobile insurance in Ghana is governed by the NIC (National Insurance Commission). Other regulatory bodies involved are the NCA (National Communication Authority), which regulates the communication services in Ghana (and is therefore the regulatory authority for MNOs) and the BoG (Bank of Ghana), which is supervising the national payment system in Ghana;
- There is no specific provision relating to the regulation of m-insurance in Ghana. In fact m-insurance is considered as an insurance product and therefore falls under the rules that apply for microinsurance products.

Risk framework:

- Some key risks have emerged relating to low customer awareness, arguably poor value for money for MNO and subscriber, partnership risks, insurers' risks and risk of third party default.

In the sections below, we will give a snapshot of the main stakeholders involved in the m-insurance space in Ghana and explain their roles and positioning.

3.1. Mobile Network Operators (MNOs)

With an estimated penetration rate of 115%[13] (31.15m subscribers) as of March 2015, Ghana is one of the most vibrant and mature mobile markets in Africa. Currently, there are six MNOs operating in Ghana. MTN is the market leader with 45.6% market share followed by Vodafone (23% market share), Tigo (13.85%), Airtel (12.4%), Glo (4.8%) and Expresso (0.4%).

13 NCA, 2015

One cannot divorce the evolution of m-insurance in Ghana from the growth of the mobile money industry. Currently, the three MNOs offering m-insurance products in Ghana (MTN, Airtel and Tigo) also provide mobile money services[14] to their customers in the form of a mobile wallet (M-wallet) that can be used to perform several types of transactions from airtime recharge to domestic transfers and bill payments.

M-wallet has an important role within the m-insurance product delivery, as described below:

> The m-wallet is the account to which payments of the indemnity are made. This is currently the case for all m-insurance products offered in Ghana. For the MNOs the benefit is twofold: (i) it helps fund the m-wallet with e-money that can be used to perform other types of transactions like payments or transfers (although from the feedback we received from the MNOs, it appears that beneficiaries of indemnities in Ghana tend to withdraw in cash the whole sum from their m-wallet) (ii) it provides a cost effective (compared to banks) digital channel to disburse funds.
>
> The m-wallet is the tool from which payments of the monthly premiums are made. However, the usual scheme that applies in Ghana is that the premium is either deducted from the customer's airtime account (airtime deduction in a paid model) or paid by the MNO depending on the customer's airtime consumption profile (in a loyalty-based model). MNOs have, however, indicated their willingness to use, in the future, the m-wallet as an alternative tool for payment of the premiums for their paid products.
>
> The MNOs are the "face" of the m-insurance policy for customers. All the products currently distributed in the country are MNO-branded (MTN Mi-Life, Tigo Family Care Insurance, Tigo Hospital Support and Airtel insurance). MNOs are also responsible for marketing of the product through Above-the-line (ATL) and Below-the-line (BTL)[15] campaigns. However, these campaigns are fairly limited nowadays and MNOs seem to have slowed down on marketing efforts after putting tremendous efforts at the launch of the products (through 360 marketing campaigns[16] for instance) which is reflected in the expenses occurred by the MNOs during the first years of the product life. This slowdown is due to the MNO or mobile money operators deciding to focus on other value-added-services (VAS) or product lines that would bring more value than m-insurance. Most of the communication was switched to being done through SMS blasts[17] sent by MNOs to existing and potential customers. The impact of this limited marketing effort can be quite negative on customer awareness. In a loyalty-based model, where customers are passively subscribing to insurance policies the risk is that customers may not clearly understand the product or know about it at all.
>
> As part of their mandate, MNOs are also traditionally in charge of the training of agents' staff. In some cases, there is collaboration with the TSP. Subscription to the policies generally happens at MNO branches or agents. Finally, in most cases, MNOs embrace the role of customer service / call centers to the customers and transfer calls received to TSP and insurance companies when relevant.
>
> It is important to note that all the MNOs in Ghana had originally launched their m-insurance programs with an aim to improve different key drivers for their business, such as an increase in ARPU (Average Revenue Per User), increase MOU (Minutes of Usage), reduce COCA (Cost of Client Acquisition) and reduce churn (movement of customers from one SIM card to another, either with another mobile operator or even the same operator (rotational churn). However, importantly, all the MNOs now agree that the increase in usage has not been as significant as it was expected when the m-insurance products were launched. The effect of churn reduction has reduced over time and to some extent, it is difficult to attribute the reduction in churn rates towards the m-insurance products only, as opposed to other marketing tools and the emergence of mobile-money. Hence, the expected business case of MNOs to offer m-insurance shows a real risk, particularly for products based on the loyalty or 'freemium' model. In this model the MNOs expect the marginal increase in ARPU and the marginal

14 Vodafone (the 2nd largest MNO in the country after MTN with 7.16m customers at the end of March 2015) launched a Mobile Money offer in August.

15 Above-the-line. Communications that use media that are broadcast and published to mass audiences (radio, TV...) and Below-the-line. Communications that use media that are more niche focused (brochure, flyers, and direct marketing campaigns at agent premises...)

16 360-marketing refers to a marketing activity which takes into account brand identity and take an inclusive approach so as to ensure that the brand is in contact with the customers at all points in time. 360-marketing is all about creating a distinctive brand philosophy which is centered on consumers. It helps to anticipate all aspects of consumer needs, especially when the brand is fairly new it needs to be present everywhere to build a brand image

17 On average 4 to 5 SMS are sent per month by MNOs to customers to inform them of future payments of premium to be made or to encourage them to upgrade.

reduction in churn to significantly outweigh the cost of the premium spent by the MNOs. The loyalty products have their own 'shelf-life' and need to transition to paid products after 6-12 months. However, there are various consumer, insurer and industry risks attached to mass market insurance products being discontinued within a relatively short period of time. Hence, this approach of using insurance merely as a marketing tool before making significant changes to the product should be assessed carefully as part of the risk assessment.

3.2. Insurance companies

There are three insurance companies, currently underwriting m-insurance products. These are UT Life (via MTN), Prudential (via Tigo) and Enterprise Life (via Airtel). Other insurance companies had underwritten products in the past, such as Star Life and Vanguard Insurance. The summary experience of the currently active (as of June 2015) insurance companies is presented below.

- **UT Life** underwrites MTN's Mi-Life product, which provides funeral cover for the subscriber and any nominated next of kin. The product is renewed on a monthly basis and is paid for by the subscriber from his mobile wallet. The product has monthly premiums of GHS 1, 2, 5 and 10 for sum-insured amounts of GHS 400, 800, 2,000 and 4,000.
- **Prudential** underwrites Tigo's three m-insurance products, as described below:
  - » Tigo loyalty product (where Tigo pays the product on behalf of the subscribers) - funeral insurance for subscriber and next of kin.
  - » Tigo Family Care product (paid for by subscriber) - funeral insurance.
  - » Tigo Hospital Support Plan (paid for by subscriber) - hospital-cash insurance.
- **Enterprise Life** underwrites the m-insurance products, delivered by Airtel. The Airtel products cover Life, Accident, Disability and Hospital-cash. There is both a loyalty-based product (premium paid by Airtel) and a paid product, whereby the subscribers with a free product can 'double their cover' on a voluntary paid basis.

  As the products offered by the insurance companies are quite different, so are the potential risks faced by the insurance companies and the subscribers of their products. Section 5, presents a detailed analysis of the risks within a defined risk framework.

3.3. Technical Service Providers

There are three technical service providers (TSP) currently operating in the Ghana m-insurance market. These are BIMA (for the Tigo products), MicroEnsure (for the Airtel products) and MFS Africa (for the MTN product). Importantly, TSPs can be further categorized as those that serve as a technological platform only (e.g. MFS Africa) and those that perform several other operational and technical roles in the value chain (e.g. BIMA and MicroEnsure).

The TSPs (belonging to the second category) play a major role in customer research, pricing, product design (in collaboration with MNO), marketing and administrative support, policy enrolment, handling customer queries and complaints, calculating insurance billing requirements and are also the first line of claims administration. The main complaints received are over policyholders misunderstanding the terms and conditions of the product. In one of the cases we analysed, the TSP is using a sales agent model for the distribution of the insurance policies and recruitment of new policyholders.

Call centre staff call subscribers to make sales part of the 'high touch' approach, by which there is an either face-to-face (through TSP agents) or direct phone contact with existing and potential customers. This approach differs from the 'low touch' approach used by MTN, whereby sales are made mostly by the existing MNO staff in branches, no dedicated sales agents are used and most of the marketing is done via leaflets, posters and advertisements.

MTN is currently using the solution of MFS Africa, a technology provider, who is providing the interface used by customers to access the m-insurance product. However, unlike for BIMA and MicroEnsure, the role of MFS Africa is limited to providing the technical interface.

TSPs play a very important role in both technical and operational areas for the m-insurance products. They provide specialist and allocated resources for developing and maintaining m-insurance products for mass market clients, which insurance companies have less experience of. They also bridge the gap between the client requirements of MNOs and the technical feasibility of insurers. However, there are also many risks involved in regards to TSPs.

The fees and commission charged by the TSPs may be very significant (compared to the standard brokerage or fees charged by brokers and third party administrators).

These high charges would lead to a lower expected claims ratio and hence, erode the product value of products for both MNO clients and individual subscribers. TSPs may also not be optimally efficient leading to low levels of customer awareness and poor product utilization, for example. TSPs may not have the specialist insurance and actuarial capacity for the relevant market, leading to decisions being influenced by commercial factors rather than technically correct factors. For example, TSPs may drive a loyalty-based product to be under -priced due to the demands of the MNOs even though it would not be the actuarially correct approach. TSPs may also limit the access, which insurers have with the MNOs and also to the granular policy level data. This would limit the level to which insurers can operate or continue m-insurance products themselves and lead to an overdependence by the insurance industry on TSPs. Since the TSPs own various parts of the value chain and the insurer's involvement being limited in many of these areas, there is a risk of third party default if the TSP changes its strategy relating to the m-insurance product or even exits the market.

3.4. Banks

Banks play a limited role in the m-insurance industry in Ghana. Their role generally consists of providing the trust account that serves to; (i) make payment of the premium share by the MNO to the insurance company and (ii) transfer the indemnity from the insurance company's bank account to the MNO's bank account (the MNO is then paying the customer on his m-wallet by means of reconciliation of bank accounts with mobile wallets).

Banks in Ghana provide several types of microinsurance products such as savings linked to micro- insurance. Some Ghanaian banks, such as Ecobank are willing to play a more significant role in the m-insurance industry and own the mobile customers. For this, they would need to offer their own mobile money solution (MNO agnostic) and have their own technology platform.

The banks involved in the m-insurance space in Ghana are mainly the partner banks of the MNOs for their mobile money activity: Fidelity Bank, Ecobank, and UBA.

3.5. Regulatory bodies and relevant regulations

Mobile insurance in Ghana is governed by the NIC (National Insurance Commission). Other regulatory bodies involved are the NCA (National Communication Authority) and the BoG (Bank of Ghana). NCA regulates the communication services in Ghana (and is therefore the regulatory authority for MNOs). BoG supervises the national payment system in Ghana and has been very active in developing financial inclusion through the promotion of alternative payment methods.

There is no specific provision relating to the regulation of m-insurance in Ghana. In fact m-insurance is considered as an insurance product and therefore falls under the rules that apply for micro- insurance products.

Market conduct rules, section 204 of the Insurance Act, 2006 (Act 724) covers the rules that specify the characteristics of microinsurance contracts compared to insurance contracts i.e. mainly the provisions for approval of contracts, marketing and sales of insurance contracts and management of claims. Under these rules, a licensed insurer shall take all the reasonable steps to design and develop a microinsurance contract. Only the NIC can grant approval to these contracts. For this purpose, the licensed insurer is requested to apply for approval and provide a number of documents (insurance contract, policy summary and record of assessment). In the m-insurance landscape, MNOs are considered as agents for the licensed insurer. Therefore, MNOs can only partner with one licensed life insurer and one licensed non-life insurer to distribute each category of insurance policy (e.g. life, health).

The NIC advocates for the development of insurance products for the low income sector and is planning to propose a new microinsurance regime that would be brought in the proposed new insurance act. The market conduct rules mentioned above serve as a transition to this new regime. This new regime should specify the eligibility criteria to benefit from a microinsurance product and quantitative criteria in terms of maximum premium amounts and sums insured.

The NIC recognizes the potential of m-insurance in leading to a scale-up of insurance for the mass market and they also recognize the convenience of payments via mobile network operators. The NIC is also pleased to see the successful transition from the loyalty to the paid models. However, the main areas of concern raised by the NIC include the following:

a) Lack of transparency due to minimal documentation and lack of a legal policy document between the insurer and mobile subscriber. The lack of hard copies also leads to an asymmetry of information, with the MNOs owning most of the policy data, in the case of disputes between subscribers and MNOs or insurers.

b) Lack of continuity of cover as some policyholders may reasonably expect that insurance cover should run for a year, whereas coverage is always

on a monthly basis for current m-insurance products. Also, policyholders may lose their coverage because they forgot to recharge by the required amount.

c) The NIC perceives that the MNOs and potentially the TSPs are taking a disproportionate share of the premium, leaving a smaller proportion for the risk carrier, which is the insurance company.

d) There is inadequate interaction and collaboration between the different regulatory bodies (NIC, NCA and BoG) currently, which may lead to gaps in regulatory supervision.

e) The insurers' lack of control or even access to policy level data is an area of concern. This is coupled with the potential of an MNO stopping a product, which has already happened in Ghana in the recent past.

f) Lack of customer awareness about the product and related features is another area of concern for the NIC, particularly for loyalty products.

g) Marketing and disclosure methods and selling methods are also of interest to ensure enough information has been given to the policyholders and no "mis-selling" has occurred.

h) Recourse options available to settle disputes between the policyholder and insurers and MNOs should be clearly specified.

Other areas of interest to the NIC include level of qualification of TSP staff, need to implement appropriate penalties, need to clarify scope of master policy documents, which insurers currently use with MNOs and any guidelines over the commission and expense charges, which are applied to the products.

NCA and BoG are not directly involved in regulating the m-insurance. However, as they are the regulatory bodies for MNOs, banks and mobile money providers, it is important to outline, in this report, the role they play.

NCA considers m-insurance as a Value Added Service (VAS) that MNOs can deliver to their customers. VAS services must follow the conditions for licensing of VAS which include, among other things:

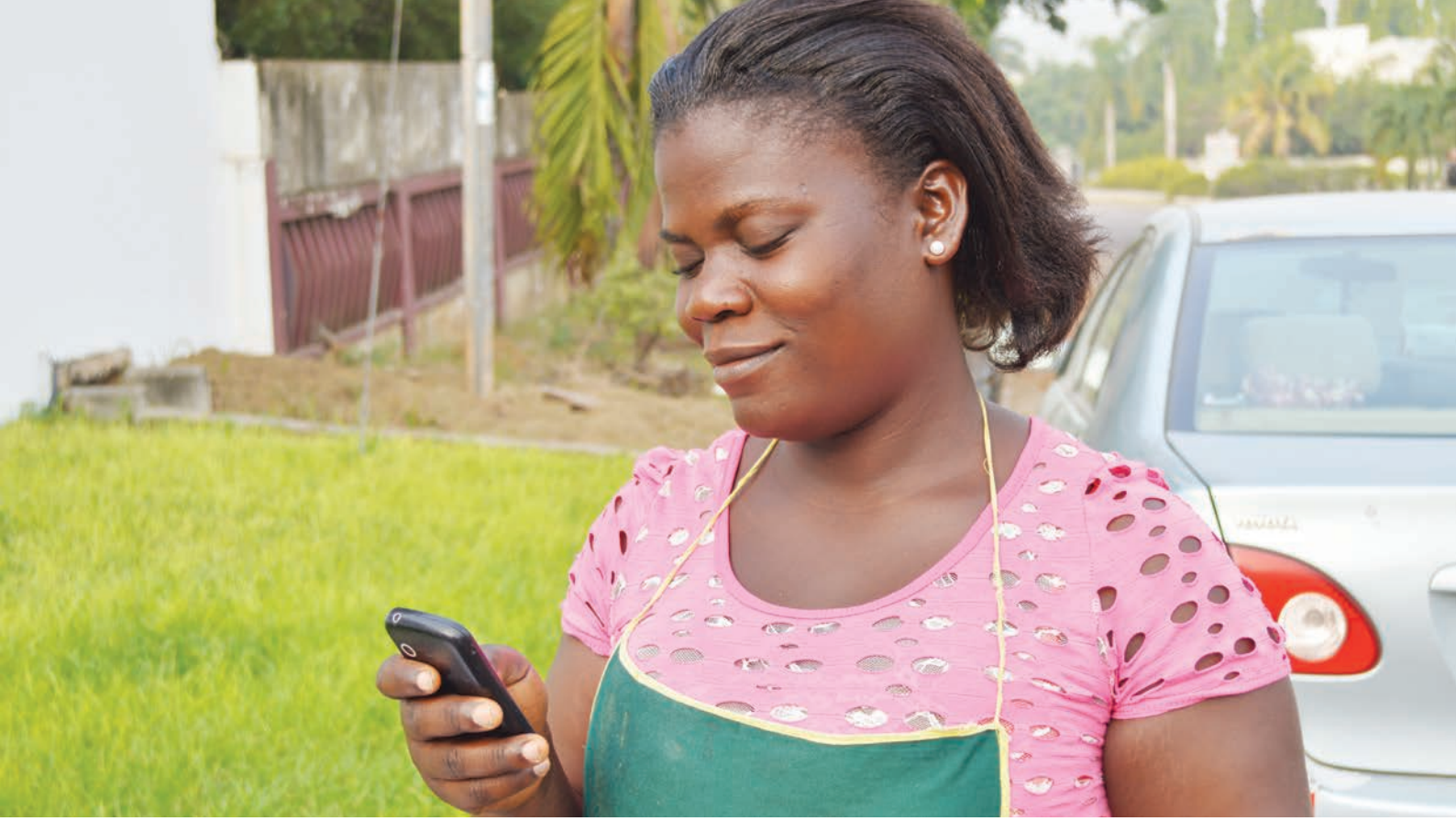
- Duration of the license is 5 years
- NCA shall be informed before commencement of the operations
- Provide information on pricing and conditions of the VAS
- Bulk electronic messages or voice calls to customers must follow certain rules
- NCA is responsible for providing the numbering resource for the operations of m-insurance

In practice, NCA is not controlling m-insurance activities but is compelled to be informed of any new m-insurance product launched in the market and of the sales conditions of the product (pricing, coverage, duration, and other conditions). Consumer data protection and use of data from m-insurance policyholders are not covered under the conditions for licensing of VAS.

The BoG issued Branchless Banking guidelines in 2008 which govern mobile money activities and that allow for a bank-led model for Branchless Banking and Mobile Money Services. M-insurance is not specifically addressed in these guidelines but the distribution and payment of premiums done through mobile money has to follow these directives. The guidelines specify:

- The permissible activities which include traditional mobile money products such as person to person transfers, cash-in, cash-out, bill and merchant payments, loan disbursement and repayment. Mobile insurance products are not specifically mentioned as permissible activities.
- The use and role of agents to distribute the above mentioned products.
- The Anti Money Laundering principles.
- The conditions for interoperability allowing any financial institutions to work with any MNOs (exclusive partnership is not allowed).

Customer protection and transaction limits are not covered under these guidelines. BoG has recently released new guidelines for Branchless Banking activities. One of the major differences between the old and new guidelines is that mobile operators will require a license to become dedicated e-money issuers and therefore will be able to provide mobile money services without the need to work with a partner bank. These guidelines also incorporate a sounder ecosystem for customer protection around principles of transparency, responsible pricing, fair and respectful treatment of clients, privacy of client data and mechanisms for complaint resolution which will impact the way m-insurance products are distributed over mobile money.



4. Risk framework

M-insurance products are significantly different from other microinsurance products in terms of the delivery channel, scale of operations and the role played by the mobile network operators (MNOs) and the technical service providers (TSPs). With rapid growth in this sector and due to the specific type of risks that m-insurance products are exposed to, it is important to consider m-insurance as a separate line of business for pricing, reserving and solvency assessment. For example, m-insurance products are exposed to a concentration risk due to the heavy dependency on specific MNOs and TSPs. Similarly m-insurance products may experience public liability risks, based on any court ruling, which may serve as precedence for a concentration of similar claims.

M-insurance schemes in some other countries[18] had to be discontinued, which affected consumer confidence in insurance and resulted in losses for all stakeholders as well as loss of insurance coverage for a large population. For all the reasons above and many others, it is critical that a risk and regulatory framework is specifically implemented for m-insurance products.

To develop an m-insurance risk framework, the following factors should be taken into account: the consumer protection related risks, long-term commercial and operational sustainability of m-insurance products and implementation of m-insurance sector's best practices. Hence, the main stakeholders relevant to the risk framework and assessment are the policyholders (and dependents), insurance companies, mobile network operators, technical service providers and the regulatory bodies.

The following risk categories were analysed and presented in this report:

A. Client value risks: risks related to products not delivering adequate value to the clients, not appreciated by the clients or not suitable for client needs.

B. Risks of MNO as a distribution channel: risks that the distribution channel (MNOs) discontinue the product or make sudden changes to an existing product.

C. Prudential risks related to the insurance company: risks of the insurance company incurring a loss or a lower profit than expected and consequently the risk to the commercial sustainability of the product.

18 For example, Econet in Zimbabwe; Airtel in Zambia

D. Third Party risks: risks of being heavily dependent on a 3rd party, such as a technical service provider and consequently being exposed to concentration risk.

E. Systems risks: risks of systems (such as MNO's systems, databases, ICT) failing to service products leading to poor client value and also liabilities for the insurers.

F. Marketing risks: risk that the products have not been sold responsibly, leading to poor customer awareness and/or "mis-selling" and/or unreasonable policyholders' expectations.

G. Legal and Regulatory risks: risks of lack of legal accountability and legal recourse to settling disputes between policyholders and insurers/ distribution channels and third parties. This can also be extended to the lack of regulatory supervision, misuse of customer data and the legal basis for the insurance policies.

In the tables 4 to 10 below, each risk is described in detail, along with sub-categories of metrics and aspects that contribute towards that risk. In addition, we summarise the potential impact of the risks, with evidence collected for m-insurance products in Ghana.

CLIENT VALUE RISKS

Client value is a very important consideration when assessing any microinsurance product. There are a few tools available for assessing client value, such as the PACE tool developed by the ILO's Impact Insurance Facility[19]. For the purpose of this study, client value risk has been defined as the risk that the products do not deliver adequate value to the clients or are not appreciated by the clients or not suitable for client needs. Consequently, demand for products can fall leading to unsustainable products. Client value is a particularly important risk when working with the mass market as many clients may have never owned an insurance product previously and a negative experience can further damage the client's perception of insurance as a concept.

Product awareness seems to be a major risk for m-insurance products and can take different forms.

Client value risks:

a. Subscribers may not be aware that they have the insurance product and are entitled to valid claims. This risk is particularly prevalent for loyalty-based products, where subscriber awareness of the product is usually extremely low, mostly because they may have not paid the premium themselves (may have been paid by the MNO) and also the product may not have been marketed effectively due to marketing risks. Low subscriber awareness can be monitored based on low claims incidence rates and low claims ratios. Subscriber's family members may be even less aware of the product, which may be indicated by very few claims for subscriber deaths.

b. Even when aware, subscribers may not fully understand product coverage and the specific product terms and conditions. They may not understand fully what risks are covered, eligibility criteria, procedures to use for queries, claiming etc.

c. The sum insured (insurance benefit) may not be sufficient compared to the actual cost incurred by customers. For example, a hospital-cash product may not adequately compensate customers for the actual cost incurred due to being hospitalised.

d. Subscribers may not be given suitable options (opt-in or opt-out as described in section 1) for enrolment or premium payment method (mobile money or deduction from air-time) may not be popular among customers.

e. Subscribers may not be able to easily cancel the product. This may be the case especially if subscribers do not fully understand the product terms and conditions and also if the customers are unfamiliar with the use of associated processes, such as mobile money for premium payments.

f. Customer complaints and queries may not be adequately handled. Queries and complaints are typically handled by either the mobile network operator (MNO) or technical service provider (TSP) or insurer. However, there is a risk that queries and complaints may not be adequately handled due to a number of reasons, such as i) there may be too many queries and complaints due to the product not being explained and/or understood adequately at the point of sale. ii) Most of the queries are handled by staff of the MNO or TSP, who may not be adequately trained in insurance related issues. MNO staff, in particular, may not be willing to invest enough time and effort to deal with customer queries, if they are not incentivized sufficiently and since insurance may not be their core business duties. iii)Insurance companies may not delegate enough resources for dealing with customer queries and complaints, as they may rely on TSPs (in particular) to deal with subscribers.

19 ILO, 2015

g. Claims are rejected due to a mismatch between Policyholder's Reasonable Expectations (PRE) and insurer's guidelines. For example, the subscribers may have reasonably thought that hospitalisation of any duration is covered, if the insurer or sales agent did not explain carefully that hospital stays of only more than 2 nights are covered.

h. Claims process may be complicated, burdensome on the customer (and/or family members) and lengthy.

i. Customers perceive poor value if there is low utilization or if very few claims are being paid out. If very few customers are reporting and/or receiving claims, then in general the customer perception of product value weakens over time. This happens as customers may perceive that no benefits are paid out (either to themselves or to others in the community) even though premiums have been paid on a regular basis, over time. The perception of 'poor value' if few claims are being paid out, is particularly relevant in Ghana, where even mass market customers have some exposure to savings-linked insurance products, whereby customers receive a savings endowment payout even if they have not received any insurance payouts. So in the absence of any kind of tangible payouts (either insurance or savings linked or cash rebates etc.) customers may perceive the products of being poor value for money in the medium- long run.

Potential Impact of client value risks

a. Demand from the subscribers fall due to low perceived client value;

b. MNOs do not perceive value in the product due to low value for subscribers. This is typically triggered by the MNO observing very low claims ratios and/or incidence rates e.g. mortality and morbidity rates;

c. Product is discontinued due to low client value (both for subscribers and MNOs);

d. Disputes with insurer due to a mismatch between Policyholders' Reasonable Expectations (PRE) and insurer's guidelines ;

e. Reputation risk due to dispute with subscribers and MNOs over 'value for money' of product;

f. Can affect market confidence in insurance and also affect market confidence in financial inclusion development in general, since m-insurance has the potential to reach millions of people.

Box 1: Examples of client value risks and impact – m-insurance products in Ghana

Based on the findings of the m-insurance risk assessment in Ghana, below are a few examples:

a. Claim frequency (Number of claims paid/Total number of eligible policies on an annualised basis) is usually very low for most m-insurance products. This is particularly the case for loyalty-based products. For example, with 1 loyalty-based product in Ghana, the claims frequency was 0.02% yearly (266 claims out of 3 million life-years of exposure). As per actuarial life tables and (more relevantly) as per the mortality experience of other micro-insurance products, the actual incurred claims frequency should have been in the region of 0.2% to 0.8%. Hence, the actual paid claims frequency has been less than 1/10th of the lowest reasonable claims frequency for this product. Such extremely low claims frequencies translate to extremely low claims ratios (e.g. 3% claims ratio for this product), which implies that for every $1 of premium paid, the population of subscribers are getting only $0.03 in claim payments as a cohort. For microinsurance products with life and/or health coverage, claims ratio below a certain threshold (e.g. 30%) are reasons for concern regarding the 'value for money' for the product. Claims ratio of less than 10% generally signifies extremely poor client value.

b. Low levels of customer awareness may be due to various reasons:

» Ineffective product marketing;

» Ineffective enrolment method; for example, in the 'opt-out' model (not used in Ghana currently but prevalent in other countries, such as Zambia), customer awareness would generally be even lower than if customers actually have to opt-in. Even though the opt-in model is usually used in Ghana, it seems that customer awareness is still low, mostly due to ineffective marketing and distribution.

- » Low customer awareness among family members of subscribers. This may be because subscribers with an m-insurance product are unlikely to disclose the details of the product to their family members. Hence, from the claims experience, a very low proportion of claims have been reported for the deaths of subscribers, which may indicate that their family members were not aware that they had the product in the first place, which leads to a low reporting of claims.
- » Low level of financial literacy taking more time before customers are fully aware of the product;
- » In some cases, the MNO may deliberately not inform customers following its policies to reduce the number of SMS's sent to customers. For example, high-end subscribers also referred to as Do Not Disturb (DND) customers may not receive SMS's giving them details of the insurance product.

c. Even when customers are aware that they are insured, there may be significant customer confusion over the terms and conditions of the product and over what risks are covered and excluded. For example, customers may not understand the coverage and limitations of the hospital-cash cover. In some cases, customers may think that hospital stays of any duration (including for one night) are insured or indeed that even out-patient treatment is covered. This may lead to a mismatch between policyholder's reasonable expectations (PREs) and the insurance terms and conditions. Some subtle differences between insurance guidelines and PRE were discussed with beneficiaries of some of the m-insurance products. For example, a subscriber had been to hospital for three consecutive days and so expected to receive a payout for a hospitalisation product, whereby a payout is made if a subscriber stays in hospital for more than two nights. However, the insurance policy prescribed that the subscriber needed to have stayed in hospital for two nights or more. The subscriber, however, had been to hospital for three consecutive days but always returned home to sleep since there were no available beds in the hospital, even though the patient should have otherwise been admitted. Hence, this was a case where the insurer did not make a payout even though the policyholder may have reasonably expected (and did expect in reality) this claim to be paid.

d. Claims reporting and settlement process are in some cases overly complicated and lengthy and not cost-effective for customers. For example, some of the hospitalisation products have very low sum insured amounts (e.g. GHS 20 per day), which do not adequately compensate subscribers for actual costs incurred by the customers. In addition, subscribers have to incur additional expenses for simply obtaining the documents required for submitting a valid claim. For example, some beneficiaries, who had received payouts, described how they had to pay a bribe to the hospital for obtaining the discharge slip, which was required for submitting a valid claim. A combination of poor customer awareness, low sum insured amount and a relatively arduous claim settlement process leads to low utilisation of cover. For example, the reported hospitalisation claims frequency was observed at 0.15% per annum for a product, whereas the actual incurred frequency for Ghana should be in the region of 2%-3% per annum for hospital stays of over 2 days.

e. The confusion over the product terms and conditions and difficulty in obtaining all the required documentation results in a large proportion of reported claims not being paid out. A large proportion of reported claims are 'provisionally rejected' in the absence of the required documents for paying out claims.

f. Other cases of customers not understanding the product features, includes the following:

- » Customers do not understand the concept of long waiting periods i.e. periods after buying the product during which claims are not valid. For example, for some m-insurance products there is a waiting period of 3 months, which is proposed to increase to 6 months. This can be very difficult to understand and justify for mass market customers of m-insurance products, particularly given the monthly renewable nature of the product.
- » Customers experience a gap in the insurance coverage if the monthly premium is not deducted (e.g. from their mobile money account) due to inadequate balance. In addition, customers are not fully aware or understand the process by which the premium is deducted via mobile money.

DISTRIBUTION CHANNELS RISKS

This is the risk that the distribution channel (MNOs) discontinue the product or make sudden changes to an existing product due to either a change in strategy or because they do not perceive a strong business case for supporting the product or because of their unfamiliarity with insurance. The key sub-categories for this risk are:

Distribution channels risks:

a. The long-term sustainability of the loyalty products is questionable, due to the relatively high premium and low level of reported claims. Extremely low claims ratio implies that subscribers are not fully aware of and/or do not sufficiently use the insurance product, potentially leading to a low impact on the subscribers' behaviour (such as significant and lasting over-subscription of mobile services or greater retention of customers). As a result, the loyalty products can be at risk of being discontinued or changed to a paid product (with much lower volumes), which would affect the medium-long term business case for the MNOs, insurers and the TSPs.

b. The business case for loyalty products (whereby MNO pays the premium themselves and the cost is not passed onto the subscribers) is dependent on the additional revenue generated as a result of the m-insurance products exceeding the MNO's investment in the product.

   The product only makes business sense if the following is true:

   Premium paid over time period (t) + Direct marketing costs of the MNO over time period (t) + All other expenses incurred by MNO for the m-insurance product over time period (t) is less than the increase in marginal revenue over time period (t) (as measured via increase in ARPU and reduction in churn and other metrics)

c. In relation to the business case risk, MNO may be paying for a disproportionately higher start-up and operational expenses. In addition to paying the premium (for loyalty-based products), the MNO may also be expected to pay for marketing expenses and other start-up and operational expenses for launching and operating the m-insurance product. Hence, the actual expenses paid may be much higher than expected.

d. MNO's reputation can be at risk due to disputes with subscribers over the product and particularly over the validity of claims. This is of particular concern to MNOs as most subscribers would associate the MNO's brand with the insurance product rather than the underlying TSP and insurance company. Hence, if there is a dispute over claims, the MNO can be exposed to a direct reputation risk;

e. Exit plan or transition plan from loyalty to paid products may not be in place or may not be working properly when products are being changed or being discontinued;

f. There is a risk that MNOs do not adequately understand insurance as a long-term financial protection product and may perceive it as simply another marketing tool. It is very important that MNOs, TSPs and all other stakeholders fully appreciate that insurance, particularly life and health insurance are long term risk management tools and to that extent the products should not be cancelled or suddenly changed as this would result in loss of consumer acceptance and confidence in insurance. It can also lead to subscribers thinking they are insured where in fact they may not be. Sudden cancellation and changes can also lead to significant regulatory risks for the insurance companies, TSPs, banks and MNOs involved.

g. In many cases, the MNOs are looking for more sophisticated products, such as maternity cover and income (disability) insurance and also products with a scope for giving 'cash-back' to customers in case of no claims. While developing more sophisticated products would be a natural progression for m-insurance products, returning part of the premium would be a risk from a regulatory and prudential insurance practice perspective. Giving refunds or cash-back is a risk, as this kind of practice can distort customers' understanding and acceptance of insurance as a financial instrument, whereby payouts would not be expected in any circumstances, even when insured losses have not been incurred. In addition, refunds can also lead to insurers not holding adequate capital reserves, as these refunds would usually not be accounted for in the pricing of the products.

Potential impact of the distribution channels risks

a. If the MNO does not perceive a strong business case in continuing either loyalty-based or paid product, then this can lead to the customers losing their insurance coverage if consequently

the product is discontinued or cancelled. This can also lead to a situation where valid claims are no longer payable due to the discontinuation of the product.

b. Due to a weak business case and/or operational disputes with the insurer or TSP, the MNO may decide to quickly transition from a loyalty-based to a paid product. However, customers may be fully aware of this transition process, which can lead to a loss of confidence in the microinsurance market.

c. Insurer's business risk due to disruption of product. In case of a quick transition from loyalty-based to paid products, the conversion of customers from loyalty to paid customers can be much lower than expected. This would lead to the business volumes being much lower than expected for the insurance company and would also lead to much lower portfolio profits than expected.

d. Lack of access to customer and product data in the event of product cancellation. The impact of lack of data would be that the insurance company is unable to calculate reserves accurately or estimate its ultimate liabilities for the policies, which have been cancelled. In addition, the insurance companies would be unable to use the granular subscriber level data to design, price and offer other life and health insurance products to those subscribers in order to continue the insurance coverage, in the event of the m-insurance product being cancelled or significantly altered. Lack of customer data would also make it impossible for insurance companies to cross-sell more sophisticated and bespoke insurance products to potential microinsurance customers.

e. Insurer and the insurance industry may lose all the policy and claims level data if product is cancelled as data stays with MNO. The data is owned by MNOs and to that extent if a product is cancelled, the insurer (and even the TSP from a regulatory perspective) may not have access to the data. This would result in a risk of the insurance coverage for a significant population being cancelled and discontinued as a result of the MNO cancelling the product.

Box 2: Examples of distribution channels risks and impact – m-insurance products in Ghana

a. For the m-insurance to present an acceptable business case for all stakeholder, the ARPU needs to increase by 30%-40% on a regular basis and churn needs to be significantly lowered over time. However, this does not appear to have been the case based on the data collected from the three MNOs in Ghana. In general, it seems that ARPU did increase in the early stage of loyalty products but the increase was not sustainable over 1-2 years. Some MNOs reported a significant reduction in churn rates. However, reduction in churn alone is unlikely to result in a strong enough business case for loyalty products. For many MNOs, there does not seem to have been systematic monitoring of how the ARPU and churn rates have actually been impacted by the loyalty-based m-insurance product. However, MNOs appear to be aware now that the business case for continuing loyalty-based products is very weak, which is why they are transitioning to paid products and discontinuing loyalty-based products.

b. The relatively weak impact on metrics such as ARPU and churn can be explained by the extremely low level of customer awareness of the m-insurance product (potentially due to the free nature of the product). This results in extremely low incidence rates and very low claims ratios and leads to MNOs further questioning the value of m-insurance products from a subscriber utilization perspective. For example, for one of the loyalty-based products, a paid claims ratio of 2% (implying that for every $1 of premium paid $0.02 was paid in claims) was observed, which led to the MNO strongly questioning the value of such a product from a subscriber's perspective.

c. In some recorded cases, the uptake of m-insurance products (especially when sold on a voluntary paid basis) has been significantly lower than expected. For example, for one product the uptake of products was only 4,000 customers instead of the 30,000 expected. In this case the reason for the low penetration has been the much lower than expected take-up of mobile money services in Ghana.

d. Expense ratio has often been very high for m-insurance products. For example, for some loyalty-based products, the expense ratio is as high as 77%. This is extremely high as this implies that the product can have a maximum claims ratio of approximately 20%, since Expense Ratio + Claims Ratio should be less than 100% for the product to break-even. Ideally, a commercially sustainable microinsurance product for

life and health insurance should have a claims ratio of 40%-60%. Hence, the expense ratio should ideally be 20%-40% for sustainability of a product, while still giving good value to clients. The high expense ratios of m-insurance products in Ghana, indicates a risk to both the profitability for the insurer, the business case for MNOs and also the client value for subscribers.

e. For all the existing loyalty-based products in Ghana, it is seen that there is a strong preference for the MNO to move to a paid product. This is consistent with the risk that the business case for continuing loyalty-based products is weak and not sustainable beyond a period of 6-12 months. For most MNOs in Ghana, there has not been a statistically significant and sustained impact on ARPU. There has been some reduction in churn; although it is not clear to what extent m-insurance products had an impact on churn compared to other marketing tools used by MNOs, such as discounts and free talk-time.

f. All MNOs confirmed that they own the data and there was a perception that the data cannot be shared with the insurer or even the TSP, as per the NCA regulations. Insurers raised concerns over their lack of access to the granular data during the running of an m-insurance product and on cancellation of the product.

INSURER PRUDENTIAL RISKS

The insurer's prudential risk is the risk that the insurance company incurs a loss or a lower profit than expected and consequently the commercial sustainability of the product may be at risk.

Insurer prudential risks:

a. Risk premium may be underpriced. This is often the case with m-insurance products and particularly for loyalty-based products. The loyalty-based products may be significantly underpriced because the pricing assumption would assume that both paid and reported claims incidence would be significantly lower than actuarially correct mortality and morbidity rates. This under-estimation of incidence rates is done as per the emerging experience of m-insurance products, which indicates that the experienced rates are much less than the rates in life-tables and also much lower than the incidence rates experienced for other micro-insurance products. The experienced rates are very low due to low levels of customer awareness. However, using this experience for pricing is a prudential risk, if the customer awareness was to improve even to a smaller degree, then the products would be significantly underpriced and can become loss-making for the insurer. If customer awareness and claims seeking behavior were to significantly change, there is a prudential risk that the insurer would not be able to meet its liabilities. It should be noted, however that even though the premium for the insurer is usually underpriced, particularly for loyalty-based products, the market premium (final premium paid by MNO) is not particularly underpriced due to the high proportion of charges going to TSPs and also to the MNOs (for paid products).

   Another aspect in considering the underpricing of the risk premium is that the insurer is often compelled to underprice due to the following factors: i) strong bargaining power of the MNOs, ii) potential for very large number of policies, which provokes underpricing to acquire the business, iii) the insurer's premium may be strictly capped due to the large proportion of the final premium, which goes towards the TSP, iv) the final premium may have to be very low, particularly due to loyalty-based products as if the premium exceeds a certain threshold, the expected business case for the MNO would become extremely weak for loyalty-based products, since the premium is a major expense for MNOs for loyalty-based products.

b. The insurer is also exposed to the risk of adverse-selection and fraud. Adverse selection occurs when those subscribers who think they are very likely to claim, are more likely to buy the product compared to those subscribers who think they are very unlikely to claim. This leads to more 'high-risk' (for the insurer) policyholders entering the insurance pool compared to 'low-risk' policyholders. Consequently, the claims ratio for the insurer can be high and claims ratio exceeding 80% can lead to a loss-making portfolio for the insurer. Similarly, fraudulent claims are a risk for insurers, particularly if the number of total policyholders is low. Both adverse-selection and fraud are particularly relevant for paid products, where subscribers buy the product on a voluntary basis and so may be more likely to actively anti-select and/or commit fraud. Hence, the product design, pricing and claims process for paid products needs to be adjusted in order to take account of the adverse selection.

c. There are many operational risks, which can lead to insurer's profitability being lower than expected. There can be a delay in receiving the premiums, particularly if a third party (such as a TSP) is involved before the insurer receives the premium. The insurer's expenses (starting, fixed and operational) may be much higher than expected.

d. Inadequate strategic and business planning can lead to a risk for the insurer's profitability. For example; expected business volumes can be lower than expected, which can lead to the overall profitability being low, since the insurer's portfolio profits is equal to the Number of policies x Profit margin per policy.

e. Insurers may have inadequate reserves and capital. This risk is particularly relevant for paid products and also if customer awareness and behavior changes significantly for loyalty-based products, leading to much higher claims incidence than is currently assumed in the pricing, reserving and reinsurance arrangements of m-insurance products.

Potential impact of the insurer's prudential risks

a. Insurer may not be able to meet liabilities (including claims and expenses), if the products are underpriced. The impact would be that valid claims are not paid out, leading to legal and regulatory action, reputation risk for all parties concerned and loss of customer confidence in m-insurance and in microinsurance products in general. Failure to meet liabilities can also lead to the insurer cancelling the product and exiting the market, which would again be harmful for continuation of insurance coverage and consumer confidence in the market.

b. Product has to be re-priced or re-designed, causing significant reduction in volumes and affecting consumer confidence. The reduction in volumes can affect the portfolio profitability for the insurer.

c. Insurer may not have the desire to innovate further, due to losses incurred with the existing products. This would limit the extent to which bespoke and tailor-made microinsurance products can address the specific risk mitigation needs for different socio-economic groups in Ghana, including the rural population. Adverse experience would also lead to a reduction in the reinsurance appetite in this sector. Reduced reinsurance appetite would limit the extent to which new types of products can be underwritten and offered to microinsurance clients in Ghana and would also limit the extent to which reinsurance can be used as an effective risk management tool by the insurers.

Box 3: Examples of prudential risks and impact – m-insurance products in Ghana

a. Many of the loyalty-based products in Ghana are severely underpriced. For example, for one product, the premium due to the insurer for life insurance was approximately 1 per mille. This means that the rate charged was GHS 1 for a sum insured of GHS 1,000 per insured life, per annum. This rate implies a mortality rate, which is significantly lower than the mortality rate implied by actuarial life tables (such as the CIMA life tables) and also the mortality rate experienced by other life microinsurance products in Ghana (as per the Landscape Study for Ghana, 2015). The significant underpricing of products (for the insurer) is a result of low customer awareness, which leads to an under-reporting of claims being assumed in the pricing.

b. Large proportion of the premium goes towards TSPs and MNOs (for paid products). For example, for some paid products, the insurer is receiving less than 15% of the total gross premium, with almost 85% going to the TSP and the MNO. This can lead to a situation where the insurer is not collecting enough premium for prudential pricing and reserving.

c. For some m-insurance products (on a paid basis) actual volumes have been much less than expected due to insufficient marketing, low take-up of mobile money and also due to a hurried transition done from loyalty-based to paid products. This has resulted in insurer's portfolio profits being much lower than expected. Expense ratios have also been high for some paid products leading to further losses as the Combined Operating Ratio (Expense Ratio + Claims Ratio) exceeds 100% for these products, leading to obvious losses.

d. For some voluntary paid products. high levels of adverse-selection and also fraud have been observed, leading to claims ratios in excess of 80% and hence, leading to loss-making products for the insurer. The low volumes for some paid products further compounds the effect of adverse selection and fraud as the impact of higher than expected claims is more prominent when the insurance pool is smaller. Adverse selection has been higher in cases where there is no waiting period or where there are no restrictions on eligibility, particularly for 'next of kin' cover.

THIRD PARTY DEFAULT RISKS

This is the risk of being heavily dependent on a third party, such as a technical service provider (TSP) and consequently being exposed to problems due to inefficiency or incapacity of the TSP or due to the exit of the TSP from the market. This risk can also extend to the effectiveness of the methodology used by TSPs for product marketing, enrolment, administration and claims handling.

Third party default risks:

a. M-insurance products are heavily dependent on the role of TSPs. The TSPs play a vital role in terms of product marketing, enrolment, policy administration and claims handling. However, many of the products are strongly dependant on the TSP continuing to play this role. Hence, there is a risk of the TSP defaulting by either exiting the market or significantly changing its role and responsibilities. This can lead to gaps in both the technical and operational components of the products in case of a default by the TSP.

b. TSPs may be charging a disproportionately high amount of the premium both via commission and in some cases, a fixed policy fee. The percentage being charged should be compared against any caps, which should apply on commission levels. Commission levels may need to vary by type of product (e.g. there could be a rationale for higher commission for paid products due to the higher expenses involved for the TSP but the commission may need to be lower for loyalty products).

c. Apart from TSPs, there is also exposure to default of other third parties, such as IT providers and banks (for mobile money). In one case, a dispute between the MNO and the associated bank for mobile-money led to an m-insurance product being discontinued[20].

d. There is a risk of the TSP not being capable or efficient enough to deal with the operational components, including marketing, policy enrolment and claims handling.

Potential Impact of third party risks

a. Inefficiencies with the TSP operational areas inefficiencies lead to poor client value, loss of customer confidence, business risks for the insurer and reputation risks for the MNO.

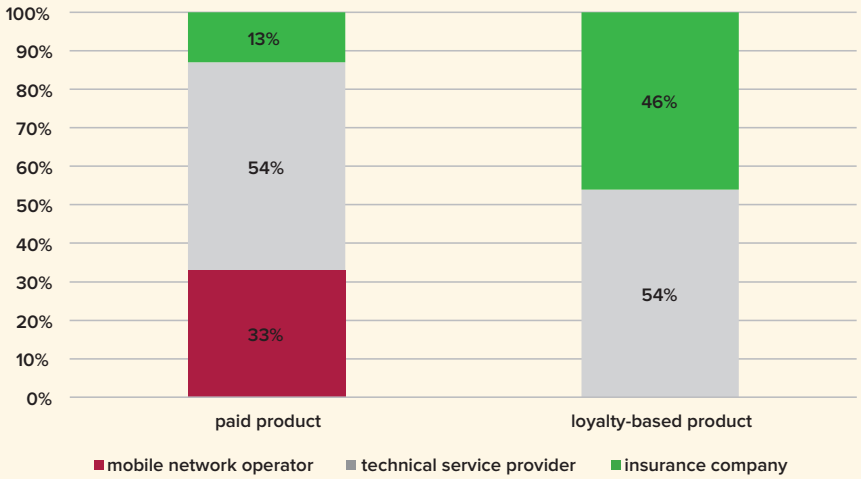
b. In the presence of the TSP, the insurer may strongly rely on the technical and operational capacity of the TSP and consequently there may be a disincentive for the insurer to develop its own technical and operational capacity. This can be a risk for the insurance sector overall as all the product expertise would be retained by the TSP only, while the insurance sector may not have the technical capacity to continue the products on their own and this may also limit innovation in the microinsurance sector.

c. Products may be discontinued or changed significantly due to an exit of or change in strategy of the TSP.

20 Reference to Econet in Zimbabwe; Airtel in Zambia

Box 4: Examples of third party risks – m-insurance products in Ghana

a. A large proportion of the gross premium (over 54%[16]) is allocated to the TSP for both paid and loyalty products, while the insurance company and MNO benefits from 13% and 33% respectively, in case of the paid product. The distribution (net of tax) of the premium is presented in Figure 4, in Annex 2. This results in gross loss ratios (claims paid/gross premium) which are inherently low to begin with, due to the high proportion allocated to the TSP. Hence, this would potentially erode client value, from the perspective of 'value for money' for the subscribers and MNOs.



b. Most insurance companies in Ghana are currently not much involved in both the technical and (particularly) operational areas of m-insurance products. These tasks have been delegated to associated TSPs. While there is a strong rationale for delegating key functions to TSPs, a downside is that insurance companies are not developing their own capacity for maintaining these products and indeed for using the learning to develop other microinsurance products. In addition, there is a risk of the insurers losing the business if the TSP and MNO decided to change insurers and also if there was to be a market exit of the TSP or if regulatory action was taken against the TSP.

SYSTEMS RISKS

This is the risk of systems (such as MNO's systems, databases, ICT platforms) failing to service products leading to both poor client value and also liabilities for the insurers.

Systems risks:

a. Systems are unable to keep up with scaling up very quickly for both loyalty-based and paid products. For example, databases required for tracking the policy level data are unable to handle the large amounts of policyholder data, which should be tracked at a monthly frequency at the very least.

b. Any covariate risks with technological breakdown e.g. leading to SMS's notifying about cover not being sent or leading to premiums not being deducted via mobile-money.

c. Data may not be maintained properly, leading to data errors.

Potential impact of the systems risks

a. Data may not be available if a product is cancelled, leading to a discontinuation of insurance coverage and loss of consumer confidence in insurance;

b. Covariate risks with technological breakdown; Systems errors can lead to gap and discontinuity of insurance coverage for subscribers;

c. Systems may be unable to keep up with the scale-up, leading to inefficient handling of customer queries, delay in claim payments, customer complaints, high incidence of fraud and adverse-selection.

21 Based on data collected from interview with stakeholders, m-insurance landscape report and report submitted to NIC.

Box 5: Examples of systems risks - m-insurance products in Ghana

a. Occasional systems problems were reported by some MNOs, such as 'down-time' of the network coverage. This led to customers not being notified that their premium is due.

MARKETING/ SALES RISKS

These are risks related to the m-insurance products not being sold responsibly, leading to poor customer awareness and/or "mis-selling", which in turn leads to false policyholder expectations being created. This can also include the risks of an ineffective marketing campaign. "Mis-selling" would have said to occurred for various reasons, such as i) if subscribers were 'forcibly' sold a product, ii) if the product was not clearly explained, iii) if the subscribers were given false expectations about the product.

Marketing risks:

a. Product is not explained properly at point of sale and when marketing the product;

b. Marketing and other set up expenses are higher than expected;

c. Level of training of agents is not sufficient, leading to sales staff not fully understanding the product features themselves and consequently, "mis-selling" the product to subscribers;

d. Marketing literature used may be misleading

Potential impact of marketing risks

a. Customers not fully aware of the 'migration' and terms and conditions of the new product, during a transition from a loyalty-based to a paid product.

b. Disputes over products can lead to reputation risks for MNOs, insurers and TSPs;

c. Products may be cancelled by subscribers due to disputes over "mis-selling".

d. Regulatory actions may be taken against the insurers over "mis-selling".

Box 6: Examples of marketing risks - m-insurance products in Ghana

a. For loyalty-based products, lack of customer awareness appears to be a significant issue in Ghana. For example, for a loyalty product, out of over a million subscribers, approximately only about 200,000 customers may be aware that they were insured, based on the low claims reporting experienced. 80%-90% of subscribers may have been unaware that they were insured. One of the main reasons for this low level of customer awareness is the lack of an effective marketing plan.

b. In some cases, the marketing done has been extremely ineffective. For example, for one m-insurance product, only one claim was reported over a duration of nine months, where 4,000 policyholders were registered. In this case both telemarketing and use of a toll free number were employed for the marketing but the marketing was still very ineffective in terms of making customers aware of the product.

c. For some products, one MNO has stopped investing much in the marketing process, leading to low product awareness among MNO staff. Consequently, staff are neither explaining the product to subscribers nor correctly explaining the product, which leads to a conflict between policyholder's reasonable expectations (PRE) and the insurance terms and conditions.

d. There are two approaches to the marketing- high touch and low touch[22]. A high touch approach is where the marketing uses labour intensive processes, such as field agents and face-face interaction with customers. A low touch approach is where the marketing relies on lighter approaches, such as using leaflets and posters and via MNO staff. It seems that the 'high touch' approach is proving to be more effective for m-insurance products in Ghana. Products sold using a combination of well trained and proactive field agents and a large call centre, are generally following better sales and marketing practices than 'low-touch' products. Customer awareness generally seems to be extremely low for low-touch marketing models.

22 Leach J. & Ncube, S., 2014

LEGAL AND REGULATORY RISKS

This is the risk of lack of legal accountability and legal recourse to settling disputes between policyholders and insurers/ distribution channels and third parties. This can also be extended to the lack of regulatory supervision, misuse of customer data and the legal basis for the insurance policies.

Legal and regulatory risks:

a. Recourse to settling of disputes is not easily available for disputes between MNO, subscriber, insurer and TSP;

b. Insufficient regulatory oversight in processes owned by the MNOs;

c. Customers perceive MNO's as accountable & consequently insurer does not play a sufficient role in the operations of the product;

d. Misuse of customer data (violating data protection/ confidentiality);

e. Disputes/conflict due to lack of paper documentation of insurance contract;

f. Rights of individual subscribers is not clear in light of group insurance policy approach;

g. Legal relationship with insurer & subscriber on insurance is not clear;

h. Risk of regulatory backlash.

Potential impact of the legal and regulatory risks

a. Best practices may not be followed in absence of supervision. Absence of best-practices may lead to "mis-selling", poor product design (from client value and insurer sustainability perspective), under/over pricing, solvency problems for insurer, reputation risks etc;

b. Mismatch of accountability may occur. For example, the subscribers may perceive the MNOs are owning the products, although from a regulatory perspective currently, the insurer is ultimately responsible for the product. This leads to a situation where the MNOs are not regulated in respect of insurance and at the same time, the insurers (who are regulated) are not perceived by the subscribers as being accountable for any disputes relating to the insurance product.

c. Customer data may be misused. For example, subscriber level data may be used for cross-selling other insurance and non-insurance products. Subscriber data may be sold to other companies for marketing purposes. These practices may be in violation of data protection regulations, which is enforeced by the mobile network regulatory body.; unclear

d. Disputes may not be resolved clearly and there may not be a clear process in place for resolving disputes between the subscribers and insurer, MNOs and TSPs.

Box 7: Examples of legal and regulatory risks for m-insurance in Ghana

a. There is currently very little active involvement of other regulatory bodies, such as the NCA and Bank of Ghana (BoG). Consequently, the MNOs and banks involved in m-insurance products are not adequately regulated for the important roles they play in m-insurance.

b. There are currently no clear processes for addressing disputes between subscribers and MNOs/insurers. In some cases, the disputes are taken to court or referred to the NIC only, whereas the other regulatory bodies are generally not involved in redressing disputes.

c. There is often no material contact between subscribers and insurers, which leads to a perception that the products are 'owned' by the MNOs, rather than the insurers.

d. Almost all m-insurance products (both loyalty-based and paid products) follow the 'Group-insurance' model, whereby there is a single legally binding policyholder, which is the MNO. Consequently, there is some confusion in the market over the legal basis, which the subscriber has when it comes to disputes over the product. Often, paper-based legally binding documents are absent and an SMS notification of cover or premium payments may be the only proof, which the subscriber has of insurance cover. Hence, this can lead to some confusion over what legal basis does the individual subscriber have in the case of disputes over validity of coverage and claims, particularly when the disputes arise between the subscriber and the MNO.

5. Risk scoring

Using the risk framework presented above, all seven m-insurance products (including the 6 products currently in the Ghanaian market) were analysed and rated on a scale of 1-5, as per the definitions below:

Table 4: Risk levels and scores

RISK LEVEL	RISK SCORE	IMPLICATIONS
Very low risk	1	Risk is very low and there is no need for concern or any actions.
Low risk	2	Risk is low but there is potential for risk to deteriorate over time, so the risk should be closely monitored using Key Performance Indicators (both quantitative and qualitative) by regulators and practitioners.
Medium risk	3	Risk is medium level and requires intervention to avoid risk deteriorating over time. Intervention required by regulators, at a policy level and by practitioners.
High risk	4	Risk is high and signals a significant threat to product sustainability and consumer protection. Mitigation methods need to be enforced immediately both at the regulatory and policy level and at the institution level for practitioners.
Very high risk	5	Risk is extremely high and signals a major threat to the product sustainability and consumer protection. Risk needs to be immediately addressed by both regulators and practitioners in order to avoid product failure. Reasons for such high risk should be examined in detail in order to put in place or revise the mechanism to avoid such situations in the future.

For example, for one current loyalty-based product, the following risk scores (following the grading outlined in Table 11) was assigned to the different sub-categories for client value risk. The basis of these risk scores was following the risk framework for client value described in Section 5. The source of data was quantitative data on the performance of the product, along with qualitative information, obtained through interviews with the insurer, MNO and TSP involved. The following risk scores were assigned:

Sum insured is not sufficeint enough	3
Customers are not fully aware of product	5
Customers not given an option for enrolment	5
Premium payment method is inconvinient/unpopular with customers	1
Subscriber cannot easily cancel product	3
Subscriber is aware of product, but not clear on design, processes and coverage	4
Claim payment take long time for being reported and paid	5
Subscriber queries are not answered on a timely basis	3
Claims are rejected due to mismatch between PRE & insurer's guidelines	5
Customer complaints are not adequately handled	4
Gaps in coverage due to insufficient top-up, customer mistake, technological breakdown	5
Claims process is not clear to customer or is burdensome	5
Registration process is not customer friendly and/or leads to unregistered customers	3
Product is overly complicated for customer understanding & for admin	3
Customers perceive poor value if no claim payouts for a while	3
Conflict/dispute with customers due to 'unsolicited' communications on insurance	4
Customer's cover is cancelled, without her being aware	4
Valid claims not being paid, due to insurer's prudential shortfalls	1
Insurer does not pay claims due to other reasons	4

Each sub-category is assumed to contribute equally towards the risk for the parent category, in the above example, each of the 20 sub-categories contributed constitutes a weighting of 5% (1/20). This gives a simple average risk-scoring, which is 3.7 for the example above.

Different weights were assumed for the different risk categories, with client value risks having the highest weighting, followed by Distribution and Prudential risks, followed by Marketing, Systems, 3rd Party Default and Legal risks.

Table 5: Risk category and Contribution towards overall risk score

Risk category	Contribution towards overall risk score
Client value risks	20%
Distribution channels risks	20%
Third party default risks	20%
Insurer's prudential risks	15%
Marketing risks	15%
System risks	5%
Legal and regulatory risks	5%

Client value, distribution and third party default risks receive the highest weight (score) of 20% each, as they are the most crucial risks from the perspective of a product being value for money for both MNOs and subscribers and also from the operational sustainability of the products, via third parties, such as TSPs. The insurer's prudential and marketing risks (at 15% score each) are also very relevant as they relate to both the underwriting sustainability of the products and the effectiveness of the marketing and sales process in terms of customers being aware of the products and their features and for customers to adequately value the product. The system, legal and regulatory risks are less relevant in comparison to the other risk categories, hence receiving a 5% weight.

This enables the overall risk scoring of each product, with the implications of the risk score described in Table 11. In general, an overall risk score of less than 3 indicates relatively low risk and no immediate cause for concern. Risk scores between 3 and 4 indicate that corrective action must be immediately taken. Risk scores above 4 indicate a very serious threat to the sustainability and/or customer value of the product.

Some of the risk scorings done for existing products in the market are shown below. Names of the products are deleted here for confidentiality.

Figure 1 – Loyalty-based product

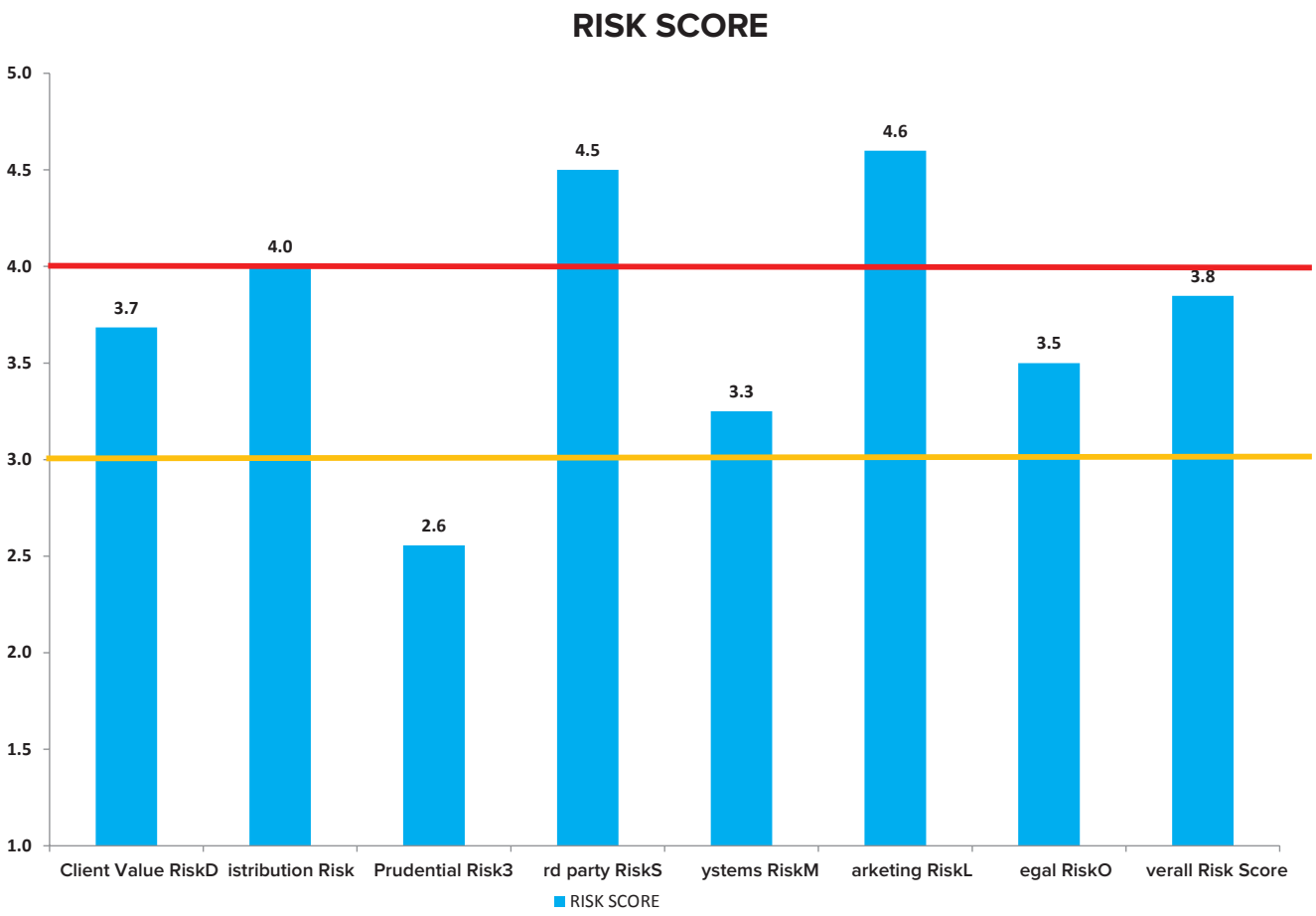


Figure 2 - Paid product (with low number of subscribers insured)

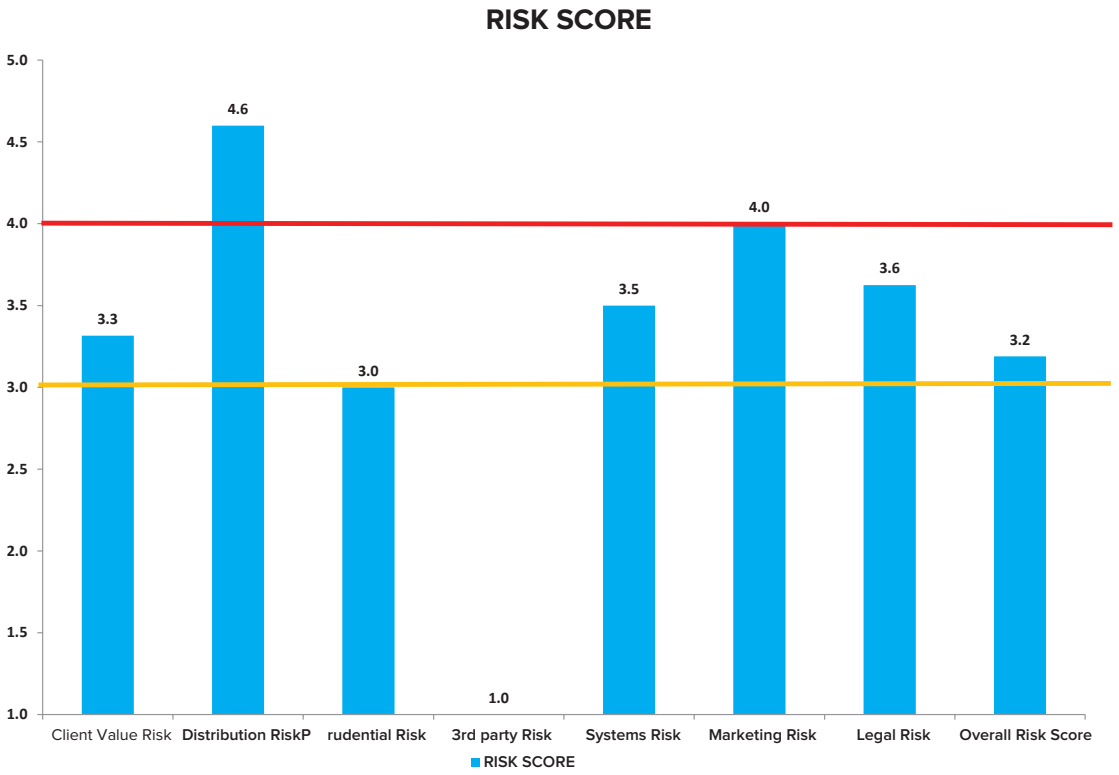
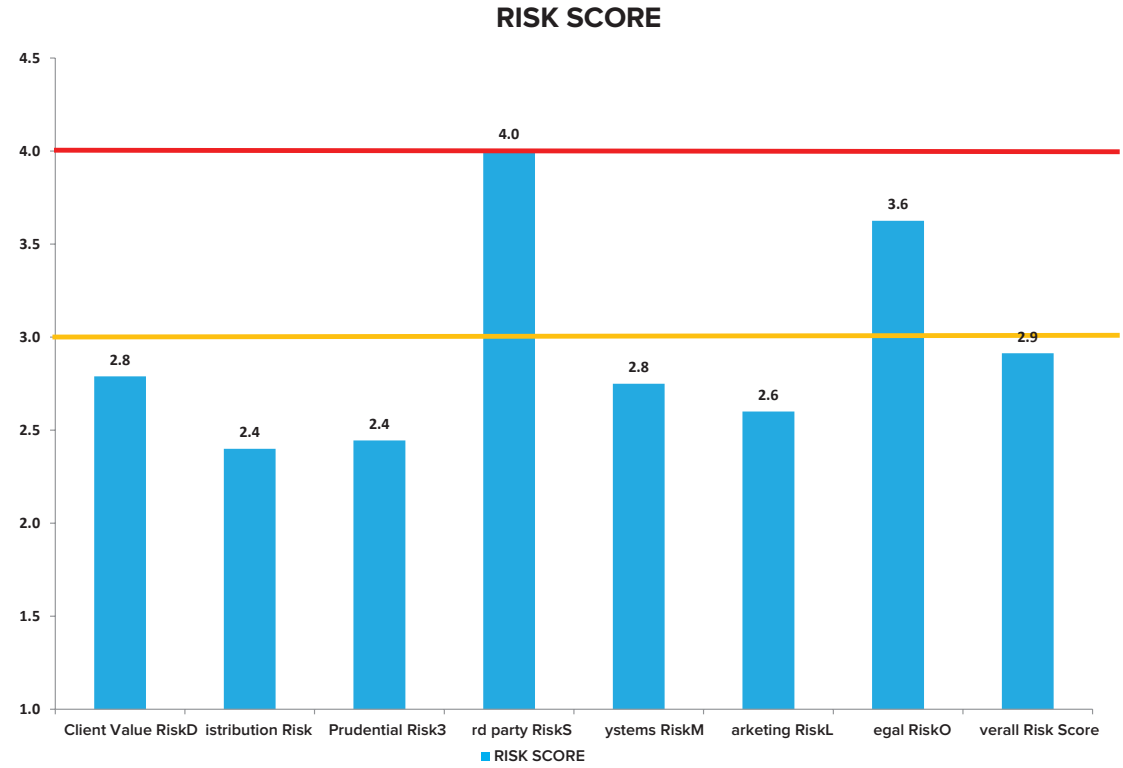


Figure 3 - Paid product (with large number of subscribers insured)



The recommended types of intervention and mechanisms required to respond to the different types of risks are described in detail in Section 7 below.

6. Feedback from stakeholders

As per the methodology followed for this study, after the phase of remote interviews, data collection and the first mission to Ghana, the landscape report was drafted. Then a second mission to Ghana was undertaken, during which the findings of the landscape report and provisional recommendations were presented to the following stakeholders:

- A full-day workshop for all the regulatory bodies (NIC, NCA, Bank of Ghana), the Ministry of Finance and GIZ (PSED);
- A working group meeting with MTN, UT Life and MFS Africa;
- A working group meeting with Tigo, Prudential and BIMA;
- A working group meeting with Airtel, Enterprise Life and MicroEnsure;
- A working group meeting with NIC and the GIZ (PSED) team.

During these workshops and meetings, the m-insurance landscape was discussed with all the stakeholders, including the following topics:

- Description of m-insurance landscape in Ghana;
- Role of MNOs, insurers and TSPs;
- Current regulatory approval process;
- Description of risks and risk framework;
- Risk scoring of different risks and potential impact of risks;
- Provisional recommendations for risk mitigation process.

Based on the presentation and feedback on these topics, the provisional recommendations were finalized (as presented in Section 7).

The feedback collected from stakeholders prior to and during the first mission has been the basis of the findings in the landscape report and outlined in this report. The feedback collected on the provisional findings and recommendations are summarised below:

1. Client Value Risk

- Key Performance Indicators (KPIs) relating to client value should be promoted. These include Claims

ratio, Expense ratio and Complaints Rate (No. Of complaints/No. Of clients).

- The sum insured amounts for m-insurance products is sufficiently high and increasing it would lead to further incidence of anti-selection and fraud.
- Subscriber level awareness is low for loyalty-based products and that anti-selection takes place for paid products, particularly for 'next of kin' cover, whereby subscribers may enroll their family member in worst health.
- It would be very difficult to measure and monitor the delay from incidence of the insured event to the reporting of the event i.e. the reporting delay. However, the delay from reporting to settlement can be monitored and presented to the regulators.

2) Distribution Channels Risk

- The risk of an m-insurance product being cancelled or changed very significantly, is very crucial. In case of discontinuity, at least the following information should be sent to the NIC:
  - » Notification of change or cancellation at least 3 months before it takes place;
  - » Reasons for change or cancellation, including letter of agreement, signed by MNO, insurer and TSP;
  - » Submission of policy documents;
  - » Submission of contingency plans to manage change;
  - » Submission of plan to inform subscribers of change/cancellation;
  - » Submission of data transfer for continuation of insurance coverage (in case of cancellation).
- Most MNOs agreed that if there is a lack of a strong business case (in terms of increasing ARPU and reducing churn) then this can lead to the products being discontinued by the MNO. However, one MNO also mentioned that due to the m-insurance product, the churn has significantly reduced from 7% to 2%, although there has not been a significant impact on the ARPU.

3) Insurer's Prudential Risk

- It was noted that many subscribers want a cash-back of part of their premium, particularly if they have not received a claim payout for over a year. While this practice may lead to higher client value for some clients and may be necessary in some form (e.g. giving free airtime) it should be generally avoided both for prudent insurance practice and also to create an understanding in the mass market that insurance would not always lead to a payout.
- In the case of a loss-making m-insurance product, the insurer agreed that the combination of low volumes (due to problems in the partnership and poor marketing), high claims ratio (due to anti-selection and fraud) and high expenses have led to the risk of the product not being commercially sustainable in the long run.

4) Third Party Default Risk

- There was some confusion among practitioners over who actually owns the data about one m-insurance product, and it appeared that in fact the TSP was effectively owning the data, instead of the MNO or insurer. This can cause some regulatory issues, as both NIC and NCA would prefer both insurer and MNO to have access to the data. Hence, this was identified as an area where active intervention by the NIC may be required to ensure that the insurer and MNO have full access to the subscriber level data, rather than the TSP only, as this exposes the product to a high level of third party default risk.

5) Systems Risk

- The subscriber level data should be made available to the insurers, most of whom currently receive summary data only. The only constraints to making the data available is the NCA restrictions on use of data and the data-ownership of some TSPs. However, there is potential to make it a regulatory requirement (in agreement between the NIC and NCA) for the data to be made available to the insurers and particularly, in the event of the product being cancelled.
- Some MNOs mentioned the scope of using an electronic card as a form of policy document for subscribers.

6) Marketing Risk

- Some practitioners complained of the difficulty in an effective marketing campaign given the level of financial illiteracy among target clients. In general, there seemed to be consensus among

most practitioners that a 'high touch' approach, including large numbers of well trained and well incentivized in-field sales agents would be required. Cold calling from call centres were also cited as an effective form of marketing in Ghana.

- Some of the MNOs agreed that their field staff were currently not incentivized (nor trained) enough for the effective marketing and selling of m-insurance products. Both the training and financial incentive structure should be looked into.

7) Legal and Regulatory Risk

- The regulators agreed that the roles and responsibilities of all 3 regulatory bodies- NIC, NCA and Bank of Ghana- should be clearly outlined from the outset. The NIC would play the lead regulatory role and call for inputs from the other regulators to the extent that MNOs and banks were relevant stakeholders for the product. The following areas were identified as areas where the regulators should collaborate:

  a) NIC and NCA should agree on subscriber-level data being made available to the insurers on cancellation of an m-insurance product. Such data can be made available to the NIC first, from whom the insurers can request access in order to continue insurance coverage for the subscribers. Both NIC and NCA agreed that giving access to this data to insurers should not be a problem and can be specified in an MoU between the two regulators.

  b) NIC and NCA should agree on the scope for the MNO to communicate vital information about the insurance product to subscribers, including DND ('Do Not Disturb') subscribers, without sending too many unwanted messages to subscribers.

  c) NIC and Bank of Ghana should agree on the use of airtime-deduction as a valid method for payment of premium. Airtime deduction may be considered as a commodity by the Bank of Ghana (BoG) and to that extent there may be a risk of this method of payment being disallowed by the BoG in the future. However, using airtime deduction is probably the only effective way of collecting premium for mass market penetration. Use of mobile money for collecting premium has had very limited success in scaling up m-insurance products in Ghana, due to the low penetration of mobile money services.

  d) Another implication of using airtime-deduction is the high rates of taxation (VAT) which applies to the premium and is passed on to the subscribers. The issue of whether there should be a tax-waiver for m-insurance products can be discussed between the NIC and the Ghana Revenue Authority.

- It was agreed by the regulators that there should be bi-annual (6-monthly) meetings between all 3 regulators, whereby presentations should be made by all 3 regulators on developments in the m-insurance sector (along with any other business). Based on these presentations, industry performance reports would be drafted and shared with the Ministry of Finance.

- Some insurers and MNOs agreed that the NCA should play an active role in both the approval process and for monitoring m-insurance products.

8) General process for risk management

- It was agreed that all relevant KPIs being monitored should be compared to industry 'best-practice' benchmarks. For example, the paid claims ratio should be in the range of 30%-60%. Observed values outside this range would trigger further action by the NIC. Similarly benchmarks would be used for claim incidence rates, such as mortality and morbidity rates, based on actuarial assumptions. Based on comparing the actual KPIs to expected KPIs, the NIC can then issue directives as and when required.

- The NIC agreed that the additional regulations for m-insurance can be added via an addendum to the Market Conduct Rules.

- It was agreed that new regulations would not be required by the NCA and BoG. However, a tri-partite MoU should be drafted between the NIC, NCA and BoG. Any disputes between the regulators can be handled via arbitration.

- One insurer expressed the need to keep reporting requirements as light as possible and have an approval process, which is not too cumbersome and which can be easily submitted by the insurers. Practitioners, in general, agreed with the proposed quantitative KPIs and also requested guidelines for the qualitative KPIs. The need to request information on an ad-hoc basis was also agreed upon by the practitioners.

- It was agreed that the additional reporting requirements for m-insurance can be added to the new regular reporting process, which the NIC is in the process of implementing. In addition, the similar metrics (specified below) will be required at the approval stage of the products. Any additional information can be verified during site inspections carried out by the NIC.
- In general, practitioners seemed to be aligned with a bi-annual reporting requirement, tied in with the regular reporting requirements for microinsurance products. There was a preference among practitioners for a single regulator (NIC) to drive the process, with inputs from NCA and BoG, as and when required.

7. Recommendations

In summary, during our analysis of the market and discussions with stakeholders, we have identified several **gaps and challenges** in the m-insurance market which are described below:

1. Appropriate KPIs are not being monitored at approval stage and on a regular basis, with appropriate actions taken based on the KPIs (compared to benchmark KPIs);
2. Data ownership issues exist, whereby MNOs own the data (with control by the TSPs in some cases) and the insurers do not have a view of the granular data. Further, in case of product cancellation or changes, insurers would not have access to the data;
3. Legally binding rights of individual subscribers is not clear under the group policy model, which is used for m-insurance (similar to group insurance structure used for other microinsurance products);
4. Restrictions and controls may be required for MNO/Bank/TSP changing partnerships or cancelling product;
5. Dispute handling process is not always clearly defined for disputes between subscribers and MNOs and between participating stakeholders e.g. between insurer and TSP;
6. Appropriate penalties and fines for misconduct are not in place;
7. Contingency plan for dealing with technological problems (e.g. 'down-time') is not in place;
8. Contingency plan in case of exit is not in place;
9. Clarification is required between NIC and BoG on whether airtime deduction is permitted compared to mobile money;
10. NCA and BoG are currently not involved in either the approval process or for monitoring the performance of m-insurance products;
11. Subscribers perceive the MNOs as owning the product, whereas the insurers (and TSPs to some extent) are actually accountable from a regulatory perspective currently.

To tackle these issues, we present below a set of recommendations that are prioritized based on impact on mitigating the risks defined in the risk framework. The recommendations will address all risks, however in the

risk category column we present the risks on which the recommendation has the strongest impact.

The priorities are color coded as follows: red is high priority, orange is medium priority and yellow is low priority.

Table 6: Recommendations for the m-insurance market in Ghana

	RISK CATEGORY	RECOMMENDATION
1.	Client value risk Insurer prudential risk	NIC should monitor key metrics / performance indicators (KPIs) such as client value (including TSP monitoring), Reported and paid mortality rates and morbidity rates, Claims ratio, Expense Ratio, Time taken to settle claims, % of Rejected Claims, % of Complaints, Growth Rate, Retention Rate, Combined Operating Ratio (see table 14 below)
2.	Distribution channels risk Marketing risk Client value risk Third party default risk	NIC should monitor qualitative indicators on the following areas (not limited to): a. Marketing strategy to be employed, effectiveness of strategy and roles and responsibilities for marketing between different parties; b. Review of marketing literature and information given to subscribers at point of sale; c. Type of training process used to train field staff; d. Process in place for initiating and completing customer enrolment and sales; e. Process in place and utilization, effectiveness for customer queries and complaints; f. Insurer's level of understanding and involvement of the insurer in the technical and operational aspects of the product (via reports and random site inspections); g. Details of human resources and capacity/qualifications of TSP, including site inspection (via reports and random site inspections); h. Process in place for verifying, handling and settling claims and effectiveness of the same; i. Product design details, including level of cover, waiting period, exclusions, eligibility conditions etc. j. Level of customer awareness (via Focus Group Discussions).
3.	Legal and regulatory risk	Make an addendum to the market conduct rules to define the rules that apply to m-insurance and effectively manage the risks associated to m-insurance activities.
4.	Legal and regulatory risk	Ensure an effective supervision and strong coordination between all the regulatory bodies
5.	All risks	Put in place a tri-partite Memorandum of Understanding (MoU) between NIC, NCA and BoG that will include technical review and dispute resolution rules, as well as a joint product approval committee and process. The MoU should address issues a, d, e, h, i and j as outlined above.
6.	All risks	NIC, NCA and BoG to meet on a regular basis (e.g. every 6 months) to review performance of existing m-insurance products.

	RISK CATEGORY	RECOMMENDATION
7.	All risks	Define a contingency / discontinuation plan at the outset on how products are expected to change (from loyalty to paid product) or discontinued.
8.	Legal and regulatory risk	Authorities and regulators to work closely together to create a framework for m-insurance in Ghana and reduce gaps in regulatory supervision, as described above.
9.	Client value risk Insurer prudential risk Third party default risk	NIC to provide the following information to NCA and BoG: value proposition to end user, risk mitigation plan, the terms and conditions applicable to the service/KYC and the projected subscriber uptake (see table 14 below).
10.	Client value risk Third party default risk Distribution channels risk Systems risk	Give insurance companies regular (e.g. monthly) access to subscriber level client data and share the data with NIC when requested, particularly if a product is discontinued.
11.	Insurer prudential risk Third party default risk	Set a benchmark for claim ratio then investigate reasons for delays and take necessary actions If the actual claims ratio is too low to avoid risk of low client value for the product.
12.	Insurer prudential risk Third party default risk Client value risk	Set benchmarks for quantitative metrics (e.g. for Claims Ratio, Expense Ratio, Incidence Rates etc) and propose range of corrective actions to take based on the actual versus benchmark KPIs e.g. monitor claim incidence rate and review pricing and/or effectiveness of marketing and product design when actual claim incidence rate is much lower than expected.
13.	Client value risk	NCA and BoG to play a significant role to ensure that m-insurance products are explained effectively to customers, while providing accurate communication through their channels.
14.	All risks	Not limit the role of players others than insurance companies (particularly TSPs) in the m-insurance space.
15.	Insurer prudential risk	NIC to set benchmarks to encourage optimum claim ratios and expense ratios (can be done through the addendum).
16.	Insurer prudential risk Third party default risk	Follow accurately the breakdown of premiums between the insurance company, the MNO and the TSP. An optimum split between the three parties involved could be: 50% gross claim ratio, 20% margin to insurance companies and the remaining 30% to be split between MNO and TSP on a case by case basis. This is a key factor in the product set up, since if the insurance company receives a low percentage of the total payment, the risk for the customers is the delay in claim payments.
17.	All risks	NIC to mitigate the potential risks associated with insurance products, understand what are the key aspects that make a product successful, raise flags to providers when necessary and guide the providers during the design phase of their products providing feedback. Monitoring of activities should happen at each stage of the product lifecycle.

The key metrics and performance indicators to be followed by NIC are described below. Monitoring of activities should happen at each stage of the product lifecycle (before launch, during and after launch). Through the monitoring of these metrics, NIC will be able to better mitigate the risks associated with mobile insurance in Ghana.

Table 7: Key metrics and performance indicators to be followed by NIC

APPROVAL STAGE	QUALITATIVE METRICS	QUANTITATIVE METRICS
NIC (with collaboration of other regulatory bodies) should analyse and assess the relevance of the new m-insurance products for the following metrics: a. Claims ratio in pricing (gross & net premium); b. Expected expense ratio (start and expected first 3 years) (gross & net premium); c. Breakdown of 100% of gross premium between MNO, TSP, Insurer, any other party; d. Expected claim incidence rates e. Per Mille premium rates charged by insurers f. Sum Insured/ Expected Cost e.g. (Sum Insured/Expected average expenses for Hospitalisation) g. Expected volumes h. Plan for product transition (e.g. loyalty to paid) and/or exit strategy/ contingency plan i. Reinsurance arrangements j. Reserving method and impact on solvency requirements	Qualitative measure of key performance indicators after launch to measure the performance of the m-insurance products from a qualitative point of view: a. Level of customer awareness; b. Marketing process (and staff, resources allocated for marketing/ process followed); c. Review of marketing literature; d. Sales & registration process (including incentive structure for sales staff); e. Product design features (at point of approval and periodic checks)- waiting period, eligibility criteria; f. Mystery shopping at MNO outlets; g. Mystery shopping/surveys into client understanding; h. Claims process; i. Customer queries and complaints handling process; j. Review of performance of TSPs k. Level and nature of disputes l. Interviews to assess involvement of insurer in process and capacity (encourage TSPs to build capacity with insurance companies); Incidence of fraud, adverse selection and processes for dealing with these	Quantitative measure of key performance indicators after launch to measure the performance of the m-insurance products from a quantitative point of view: a. Actual claims ratio (gross & net premium); b. Actual expense ratio (gross & net premium); c. Actual breakdown of premium between MNO, TSP, Insurer, any other party; d. Incidence rates (paid and reported if available) (compared to benchmarks); e. Average time taken to report claims (from incidence); f. Average time taken for reported claims to be paid; g. % of claims rejected; reasons for rejection; h. Reasons for health claims (IP vs OP); i. Growth rate of policies; j. Cancellation rate of policies; k. Actual volumes & (Actual/ Expected) l. If expected to improve MNO's business- actual change in ARPU, churn, other KPIs for MNOs m. Process being followed for any changes to product or transition (e.g. loyalty to paid products)

8. Conclusion

Ghana has been a pioneer in Africa in providing m-insurance services to low income population. Relying on a buoyant mobile market (with over 100% penetration rate of mobile services) and the appetite of insurance companies and MNOs to provide insurance products targeting low income masses, Ghana has quickly seen several players launching m-insurance products, between 2010 and 2014.

Although several m-insurance models have emerged in Ghana (loyalty-based on airtime consumptions, paid product from the m-wallet, paid product from airtime), most of the players are currently transitioning to a voluntary paid model whereby premium is paid from airtime account (and eventually m-wallet account). The results are yet to be measured but such a change in the business model will have a considerable impact in the customer base and customer usage of m-insurance products. In order to have a smooth transition to the paid model, it is important that the market players (underwriters, MNOs and TSPs) align their product designs, business models and marketing campaigns.

There is currently no specific regulation governing m-insurance in Ghana. As the m-insurance market is growing and more players are interested in playing a role in this market, the existing risks will increase, new types of risks will emerge and need guided and well-structured risk management. Our proposed methodology analyses six main categories/classes of risks, defined based on their sources and impact: Client value, MNO as a distribution channel, Insurance companies, Third parties, Systems and Marketing).

Based on these types of risks and the challenges identified in the existing m-insurance market set up in Ghana, the report presents a number of key recommendations for main stakeholders, and particularly the regulatory bodies, to help translate the increase in adoption of m-insurance products into a successful industry that will help foster insurance coverage for the poorer while securing enough revenues for all the parties involved:

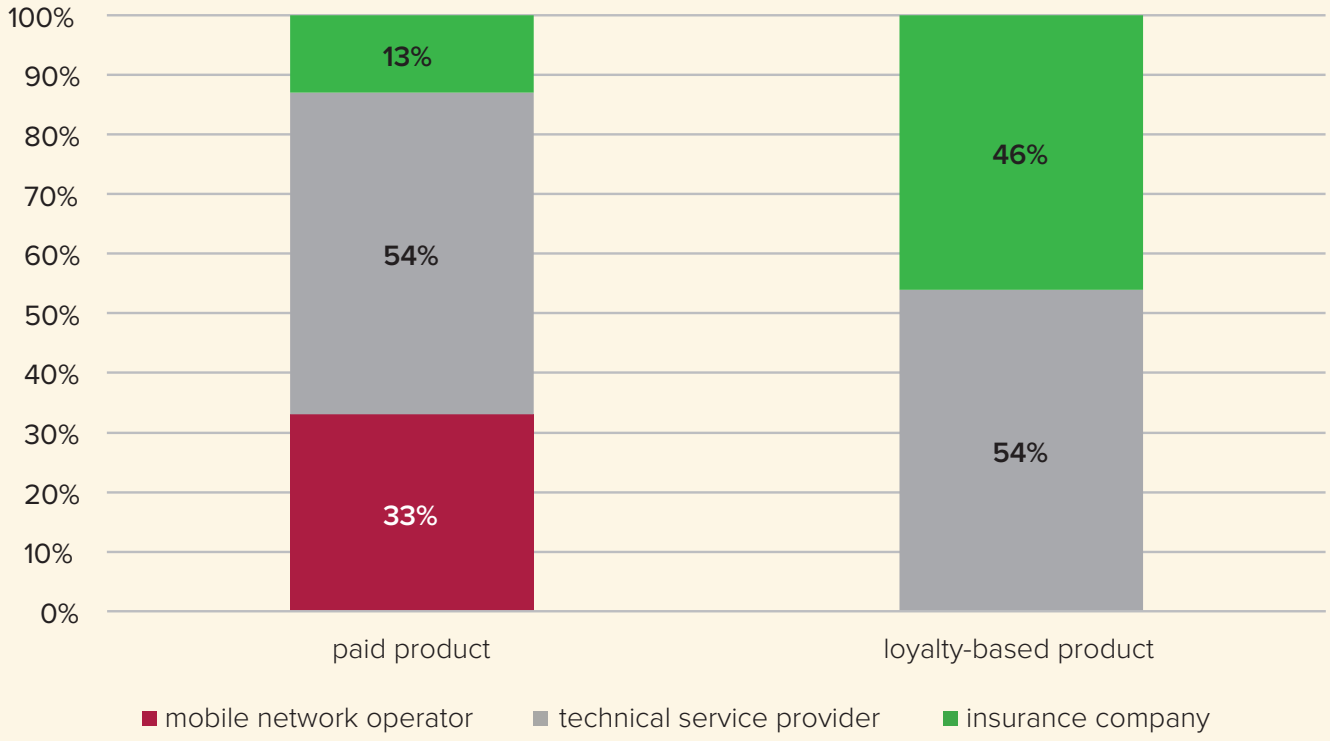
- Since m-insurance involves players from various industry backgrounds (telecommunications, banking and insurance) regulated by various bodies, it is necessary that these regulatory entities work closely together to create a framework for m-insurance and reduce gaps in regulatory supervision.
- M-insurance is a subset of microinsurance and therefore today there is no specific regulation for m-insurance since these activities fall under microinsurance regulation. However, due to the specificities of m-insurance, it is expected that the current microinsurance regulation be amended to capture the specificities of m-insurance which will help mitigate the risks that we have identified.
- M-insurance activities need to be monitored closely, prior to the launch of new products (seeking approval from the regulator) and regularly when a product is launched. What applies today to insurance activities or microinsurance activities cannot apply to m-insurance as the rules that govern m-insurance are unique. In the report, we have provided a number of key metrics to follow and that will ensure that m-insurance activities pertain to a clear framework.
- Finally, as m-insurance is a specific activity, so comes the need to create targeted communication and customer awareness programs to help potential customers understand the benefits that m-insurance can bring to their daily life (provide clear information, develop a marketing strategy for loyalty products) while developing clear customer protection rules (e.g. selling option, dispute resolutions).

9. Annexes:

Annex 1: Premium distribution

This shows the breakdown of Gross Premium between the different stakeholders for paid products and loyalty-based current products in Ghana.

Figure 4 - Gross premium distribution in Ghana



Annex 2: Minimum data requirements to be captured by NIC through an SDR

Minimum data requirements to be captured by NIC through an SDR

	Data	Type of Data	Description
1	Company Information	Qualitative	Include Company and product name
2	Type of Cover	Qualitative	Indicate if the product is a life , credit life, Hospitalisation or Agricultural Insurance cover
3	Product Information	Qualitative	Include the year of launch of product , minimum premium and the minimum sum assured
4	Lives insured	Quantitative	All persons covered by the policy, including dependents, group members, etc., but NOT beneficiaries)
5	Gross written premiums	Quantitative	Mobile Insurance only
6	Value of Claims paid	Quantitative	
7	Number of claims paid	Quantitative	
8	Admin / operating expenses, (GHS)	Quantitative	Excluding claims
9	Commission rate	Quantitative	% of written premium
10	Distribution channels used	Qualitative	Detailed description of channels used eg. Mobile Agents , call centers etc
11	Gross written premiums	Quantitative	ALL INSURANCE business
12	Number of Claims Reported by policyholders to Insurer	Quantitative	Number of claims reported on each line of cover e.g Life, hospitalization, Property etc.
13	Average Time taken for Reported Claims to be Paid	Quantitative	Average time taken for reported claims to be paid on each line of cover e.g Life, hospitalization, Property etc.
14	Number of Claims Rejected	Quantitative	Number of Claims Rejected on each line of cover e.g Life, hospitalization, Property etc.
15	Number of Claims Paid	Quantitative	Number of Claims Paid on each line of cover e.g Life, hospitalization, Property etc.
16	Gross Premium	Quantitative	(Total Premium paid by Subscribers and/or MNO (in case of loyalty product), including Net Premium for Insurer + All Fees/Charges + Taxes)
17	Net Premium	Quantitative	Premium received by Insurer, NET of Taxes, TSP fees, Commission etc.
18	Amount of premium going to Technical Service Provider (TSP) (GHS)	Quantitative	
19	Amount of premium going to Mobile Network Operator (MNO) (GHS)	Quantitative	
20	Amount of premium going towards Taxes (GHS)	Quantitative	
21	Insurer's Operational and Admin Expenses for the m-insurance product	Quantitative	EXCLUDING any payments made to TSP, MNO, Taxes. This is any additional expenses incurred by the insurer for the m-insurance product.

Annex 3: Guideline for m-insurance product approval

TEMPLATE TO USE AT APPROVAL STAGE FOR MOBILE INSURANCE PRODUCTS

1) What method was used for calculating the Premium? Please include the detailed actuarial justification for the method used? Please provide a comparison of premium in comparison to premium used for other types of comparable micro-insurance products in the market?

   (Guidelines: Actuarial review required)

2) The Actuarial Pricing Memo MUST include the following details, with actuarial review:

a) Expected Paid Claims Ratio (Gross Premium): Explicit metric required in Actuarial Pricing Memo = [Pure Risk Premium/Gross Premium (in GHS)];

b) Expected Paid Claims Ratio (Net Premium): Explicit metric required in Actuarial Pricing Memo = [Pure Risk Premium/Net Premium (due to Insurer) (in GHS)];

c) Breakdown of Gross Premium: Expected metric required in Actuarial Pricing Memo = % split of Gross Premium between Insurer, TSP, MNO, Taxes, any others (for both loyalty-based and paid products);

d) Paid incidence rate (for subscribers): Expected metric required in Actuarial Pricing Memo= Expected number of life claims paid in a year/ Expected number of life-years in a year.

   (Guidelines: This should be based on relevant actuarial life tables. Any adjustments made to the life table should be strongly validated based on sound actuarial principles and can take into account special features for target market, along with benchmark pricing. However, very low incidence rates assumed based on very low reporting of claims should NOT be allowed);

e) Paid incidence rate (for next of kin): Expected metric required in Actuarial Pricing Memo= Expected number of life claims paid in a year/ Expected number of life-years in a year.

   (Guidelines: This should be based on relevant actuarial life tables. Any adjustments made to the life table should be strongly validated based on sound actuarial principles and can take into account special features for target market, along with benchmark pricing. However, very low incidence rates assumed based on very low reporting of claims should NOT be allowed. Should take into account additional adverse-selection for 'next of kin' lives);

f) Paid incidence rate (hospitalization): Expected metric required in Actuarial Pricing Memo= Expected number of hospitalization claims paid in a year/ Expected number of life-years in a year.

   (Guidelines: This should be based on relevant actuarial morbidity tables & other relevant health statistics for Ghana. Any adjustments made to the health statistics should be strongly validated based on sound actuarial principles and can take into account special features for target market, along with benchmark pricing. However, very low incidence rates assumed based on very low reporting of claims should NOT be allowed. Basis for making assumptions of hospitalization above a certain number of days (e.g. 2 days) should also be clarified and be prudent);

g) Paid incidence rate (disability): Expected metric required in Actuarial Pricing Memo= Expected number of disability claims paid in a year/ Expected number of life-years in a year.

   (Guidelines: This should be based on relevant data sources and actuarial life tables. Any adjustments made to the underlying data should be strongly validated based on sound actuarial principles and can take into account special features for target market, along with benchmark pricing. However, very low incidence rates assumed based on very low reporting of claims should NOT be allowed. Disability rates based on mortality rates can be allowed but sufficient underlying data on disability incidence should also be used for setting the assumptions);

h) Paid incidence rate (personal-accident): Expected metric required in Actuarial Pricing Memo= Expected number of PA claims paid in a year/ Expected number of life-years in a year.

   (Guidelines: This should be based on relevant actuarial life tables and other relevant PA related data. Any adjustments made to the life table should be strongly validated based on sound actuarial principles and can take into account special features for target market, along with benchmark pricing. However, very low incidence

rates assumed based on very low reporting of claims should NOT be allowed. Sufficient use of PA data should be demonstrated in the actuarial memo);

i) Paid incidence rate (any others-please specify): Expected metric required in Actuarial Pricing Memo= Expected number of claims paid in a year/ Expected number of life-years in a year.

(Guidelines: This should be based on relevant underlying sources of data. Any adjustments made to the underlying data should be strongly validated based on sound actuarial principles and can take into account special features for target market, along with benchmark pricing. However, very low incidence rates assumed based on very low reporting of claims should NOT be allowed);

j) Expected Combined Operating Ratio (Expected Claims Ratio + Expected Expense Ratio).

(Guidelines: Both the expected claims and expense ratios should be based on Gross Premium for this calculation. The Expected Expense Ratio should take into account higher initial expenses in the first year as well as the expected operational expenses going forward. Expected Combined Operating Ratio for the first 3 years should be given as per the business plan for the product for the insurer. The Expected Expense Ratio should also take into account Commission and fees/ charges for the Technical Service Provider (TSP).)

3) What methods are being used for the marketing of the product?

(Guidelines: 2-3 paragraphs on marketing approach to be used. Methods to be used (e.g. face-face, training of trainers, via MNO staff etc.). Roles & responsibilities for marketing should also be clarified. Internal KPIs to be used to monitor effectiveness of marketing should also be disclosed)

4) Please provide samples of all marketing literature being used.

(Guidelines: Samples of all marketing literature (leaflets, fliers, SMS text) to be used should be submitted).

5) Provide full policy document, giving full product features and associated processes.

(Guidelines: Assess overall product design features from client-value perspective and also insurer's risks).

6) What method is used to enroll customers? Is enrolment opt-in or opt-out? Please describe the process and outline the responsibilities of the parties involved.

(Guidelines: 1-2 paragraphs on method used for enrolment to be given).

7) At which points and how are the subscribers told about the product (e.g. in person by TSP staff, by MNO staff, by call centre etc.)

(Guidelines: 1-2 paragraphs describing how the product is explained to the subscribers. Tools used to communicate and stakeholder responsible for each tool.)

8) Please give details of the incentive structure given to sales and marketing staff (for MNO, TSP and Insurer)

(Guidelines: Brief description (1 paragraph) on incentive structure given to sales & marketing staff and also clarification of which parties are responsible for sales and marketing and how the marketing will be implemented and monitored).

9) What access does the insurer have to policy-level data? Any issues with the data access?

(Guidelines: Data-sharing clause as per the policy document/ MoU between Insurer and MNO. Intervention/ inputs from NCA may be required here).

Annex 4: Template for monitoring Key Performance Indicators (KPIs) for M-Insurance (Drafts)

APPROVAL STAGE

	KEY PERFORMANCE INDICATORS	TYPE OF KPI	DATA SOURCE/ CALCULATION AT APPROVAL	*BENCH-MARKS/ COMMENTS
1	What method was used for calculating the Premium? Actuarial justification for the method used? Comparison of premium in comparison to premium used for other types of micro-insurance products by the insurer?	Qualitative	Details to be given in the Actuarial Pricing Submission	Actuarial review required
2	What methods are being used for the marketing of the product?	Qualitative	2-3 paragraphs on marketing approach to be used. Methods to be used (e.g. face-face, training of trainers, via MNO staff etc). Roles & responsibilities for marketing should also be clarified. Internal KPIs to be used to monitor effectiveness of marketing should also be disclosed.	High-touch' methods with effective face-face interaction with subscribers may be more effective than 'Low-touch' methods (via SMS and leaflets etc). Should be cross-checked with emerging data on utlisation, claims incidence rates, claims ratio etc.
3	Provide samples of all marketing literature being used	Qualitative	Samples of all marketing literature (leaflets, fliers, SMS text) to be used should be submitted.	Should asess ease of understanding, accuracy of information provided, any incorrect messaging compared to the policy document, any key messages omitted etc.
4	Provide full policy document, giving product features	Qualitative	Policy document (between insurer and MNO)	Asess overall product design features from client-value perspective and also insurer's risks
5	What method is used to enrol customers? Is enrolement opt-in or opt-out? Please describe.	Qualitative	1-2 paragraphs on method used for enrolment to be given	Opt-in method is generally much better for subscriber awareness than opt-out method
6	Details of incentive structure given to sales and marketing staff (for MNO, TSP and Insurer)	Qualitative	Brief description (1 paragraph) on incentive structure given to sales & marketing staff	Some incentive structure should be in place for effective sales and marketing. Commission should be attractive for both initial sale and renewals. Passive selling by MNO staff is generally NOT very effective.

* All comments and proposed benchmarks are solely the opinion of the consultants

REGULARLY ONLY

	KEY PERFORMANCE INDICATORS	TYPE OF KPI	DATA SOURCE/ CALCULATION ON REGULAR BASIS	* BENCH-MARKS/COMMENTS
1	Reported incidence rate (subscriber Life)	Quantitative	(Number of life claims reported/Number of subscribers)	should be between 0.1%-0.4% in Ghana
2	Reported incidence rate (next of kin Life)	Quantitative	same formula as 1 (above)	should be between 0.1%-0.4% in Ghana
3	Reported incidence rate (Hospitalisation)	Quantitative	(Number of life claims reported/Number of subscribers)	should be between 2%-4% depending on type of hospitalisation event covered, in Ghana
4	Reported incidence rate (Disability, Personal Accident or others - please specify)	Quantitative	same formula as 1 & 3 (above) for relevant peril	should be about 1/3rd-1/10th of the mortality experience(should be justifiable and compared to the underlying data used in pricing)
5	Average time taken for reported claims to be paid- Life insurance	Quantitative	Average time (NOT minimum or maximum) in days taken for reported claims to be paid	should be 7-21 days for Life insurance
6	Average time taken for reported claims to be paid- Health insurance	Quantitative	Average time (NOT minimum or maximum) in days taken for reported claims to be paid	should be 7-30 days for Health insurance
7	Average time taken for reported claims to be paid- any others- please specify	Quantitative	Average time (NOT minimum or maximum) in days taken for reported claims to be paid	should be justifable
8	% of Claims Rejected- Life	Quantitative	{life claims reported-life claims paid}/life claims reported	should be less than 20% ideally
9	% of Claims Rejected- Hospitalisation	Quantitative	life claims reported-life claims paid/life claims reported	should be less than 20% ideally
10	% of Claims Rejected- any others- please specify	Quantitative	Same approach as 8 & 9 (above)	should be less than 20% ideally
11	Feedback from Insurer on performance of product and list of top 3 key challenges based on recent experience.	Qualitative	Any further comments from insurer on key challenges/ issues experienced, which have NOT been covered in previous questions. Steps taken to resolve same. Outstanding issues and proposed steps to address and any inputs required from NIC, NCA or BoG.	In writing and also during ad-hoc site inspections by NIC, without prior notice

	KEY PERFORMANCE INDICATORS	TYPE OF KPI	DATA SOURCE/ CALCULATION ON REGULAR BASIS	* BENCH-MARKS/COMMENTS
12	Feedback from MNO on performance of product and list of top 3 key challenges based on recent experience.	Qualitative	Any further comments from MNO on key challenges/ issues experienced, which have NOT been covered in previous questions. Steps taken to resolve same. Outstanding issues and proposed steps to address and any inputs required from NIC, NCA or BoG.	In writing and also during ad-hoc site inspections by NIC, without prior notice
13	Feedback from TSP on performance of product and list of top 3 key challenges based on recent experience.	Qualitative	Any further comments from TSP on key challenges/ issues experienced, which have NOT been covered in previous questions. Steps taken to resolve same. Outstanding issues and proposed steps to address and any inputs required from NIC, NCA or BoG.	In writing and also during ad-hoc site inspections by NIC, without prior notice

* All comments and proposed benchmarks are solely the opinion of the consultants

APPROVAL & REGULARLY

	KEY PERFORMANCE INDICATORS	TYPE OF KPI	DATA SOURCE/CALCULATION AT APPROVAL	DATA SOURCE/ CALCULATION ON REGULAR BASIS	* BENCH-MARKS/ COMMENTS
1	Paid Claims Ratio (Gross Premium)	Quantitative	Explicit metric required in Actuarial Pricing Memo = [Pure Risk Premium/Gross Premium (in GHS)]	Total amount of Claims paid/Total Gross Premium	Should be roughly 30%-50% at least for medium-good value products, which are still profitable
2	Paid Claims Ratio (Net Premium)	Quantitative	Explicit metric required in Actuarial Pricing Memo = [Pure Risk Premium/Net Premium (due to Insurer) (in GHS)]	Total amount of Claims paid/Net Premium	Should be roughly 50%-70% of net premium for good value and sustainable products
4	Breakdown of Gross Premium	Quantitative	Expected metric required in Actuarial Pricing Memo = % split of Gross Premium between Insurer, TSP, MNO, Taxes, any others (for both loyalty-based and paid products)	Based on the graph in Box 4, 54% is kept by TSP and 13% goes to Insurer. MNO's share of premium should also be taken into account, along with taxes	Breakdown should take into account any caps applicable for TSPs and distribution channels (e.g. MNOs).
5	Paid incidence rate (subscriber Life)	Quantitative	Expected metric required in Actuarial Pricing Memo= Expected number of life claims paid in a year/ Expected number of life-years in a year. This should be based on relevant actuarial life tables. Any adjustments made to the life table should be strongly validated based on sound actuarial principles and can take into account special features for target market, along with benchmark pricing. However, very low incidence rates assumed based on very low reporting of claims should NOT be allowed.	number of life claims paid/number of beneficiaries	should be between 0.1%-0.4% in Ghana
6	Paid incidence rate (next of kin Life)	Quantitative	Expected metric required in Actuarial Pricing Memo= Expected number of life claims paid in a year/ Expected number of life-years in a year. This should be based on relevant actuarial life tables. Any adjustments made to the life table should be strongly validated based on sound actuarial principles and can take into account special features for target market, along with benchmark pricing. However, very low incidence rates assumed based on very low reporting of claims should NOT be allowed. Should take into account additional adverse-selection for 'next of kin' lives.	Same formula as metric 5(above) for next of kin deaths	should be between 0.1%-0.4% in Ghana

	KEY PERFORMANCE INDICATORS	TYPE OF KPI	DATA SOURCE/CALCULATION AT APPROVAL	DATA SOURCE/ CALCULATION ON REGULAR BASIS	* BENCH-MARKS/ COMMENTS
7	Paid incidence rate (Hospitalisation)	Quantitative	Expected metric required in Actuarial Pricing Memo= Expected number of hospitalisation claims paid in a year/ Expected number of life-years in a year. This should be based on relevant actuarial morbidity tables & other relevant health statistics for Ghana. Any adjustments made to the health statistics should be strongly validated based on sound actuarial principles and can take into account special features for target market, along with benchmark pricing. However, very low incidence rates assumed based on very low reporting of claims should NOT be allowed. Basis for making assumptions of hospitalisation above a certain number of days (e.g. 2 days) should also be clarified and be prudent.	number of life claims paid/number of beneficiaries	should be between 2%-4% depending on type of hospitalisation event covered, in Ghana
8	Paid incidence rate (Disability)	Quantitative	Expected metric required in Actuarial Pricing Memo= Expected number of disability claims paid in a year/ Expected number of life-years in a year. This should be based on relevant data sources and actuarial life tables. Any adjustments made to the underlying data should be strongly validated based on sound actuarial principles and can take into account special features for target market, along with benchmark pricing. However, very low incidence rates assumed based on very low reporting of claims should NOT be allowed. Disability rates based on mortality rates can be allowed but sufficient underlying data on disability incidence should also be used for setting the assumptions.	Same formula as metric 5 & 7 (above)	should be about 1/3rd-1/10th of the mortality experience
9	Paid incidence rate (Personal Accident)	Quantitative	Expected metric required in Actuarial Pricing Memo= Expected number of PA claims paid in a year/ Expected number of life-years in a year. This should be based on relevant actuarial life tables and other relevant PA related data. Any adjustments made to the life table should be strongly validated based on sound actuarial principles and can take into account special features for target market, along with benchmark pricing. However, very low incidence rates assumed based on very low reporting of claims should NOT be allowed. Sufficient use of PA data should be demonstrated in the actuarial memo.	Same formula as metric 5 & 7 (above)	should be about 1/3rd-1/10th of the mortality experience

	KEY PERFORMANCE INDICATORS	TYPE OF KPI	DATA SOURCE/CALCULATION AT APPROVAL	DATA SOURCE/ CALCULATION ON REGULAR BASIS	* BENCH-MARKS/ COMMENTS
10	Paid incidence rate (any others- please specify)	Quantitative	Expected metric required in Actuarial Pricing Memo= Expected number of claims paid in a year/ Expected number of life-years in a year. This should be based on relevant underlying sources of data. Any adjustments made to the underlying data should be strongly validated based on sound actuarial principles and can take into account special features for target market, along with benchmark pricing. However, very low incidence rates assumed based on very low reporting of claims should NOT be allowed.	Same formula as metric 5 & 7 (above)	should be validated based on statistics and underlying data for Ghana
11	Combined Operating Ratio (Claims Ratio + Expense Ratio)	Quantitative	Summation of Metrics 1 + 3 in Year 1 and 1 + 4 for year 2 onwards		Should be between 80%-90% approx
12	At which points and how are the subscribers told about the product (e.g. in person by TSP staff, by MNO staff, by call centre etc)	Qualitative	Description of how the product is explained to the subscribers. Tools used to communicate and stakeholder responsible for each tool.	Any comments on effectiveness of methods being used to communicate, citing any of the quantitative KPIs to validate the comments. Also comments on the top 3 challenges in communications to the subscribers.	In person marketing and direct face-face contact (high touch approach) can be more effective. Call centres may be more effective than using only leaflets etc.
13	What access does the insurer have to policy-level data? Any issues with the data access?	Qualitative	Data Sharing clause as per the policy document/ MoU between Insurer and MNO. Intervention/ inputs from NCA may be required here.	Any issues with access to the data. Intervention/ inputs from NCA may be required here.	Insurer should have access to policy level data. Data should NOT be controlled by MNOs and TSPs only. Intervention of NCA will be required at the outset.

* All comments and proposed benchmarks are solely the opinion of the consultants

10. References

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