
Influence of innovation on business performances in the insurance sector of Sri Lanka

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Introduction

Innovation is a major driver of success of a business. In insurance it is believed that the competitiveness of enterprises to a great extent depends upon their innovations. Therefore, the most of the companies in the insurance industry, in both life and non-life segments, are using analytics to drive innovative changes in their business processes, and often the result is more satisfied consumers, increased profitability, and lower risk.

Performance of insurance companies in Sri Lanka remains low with the overall insurance penetration at 1.09 percent in 2015, slightly increased from 1.01 percent in 2014. This has been attributed to little awareness of insurance products among the citizens, negative perception of insurance practices, poor service, and unhealthy competition among insurers and so on (Cummins & Pauline, 2013; Nadine et al., 2012). Therefore continuously search for development of new ways of conducting business through innovation is vital for insurers.

An innovation is an introduction of a good, service or procedure that is new or significantly improved regarding its characteristics or intended use. Damanpour (1991) defines innovation as the introduction of a new or significantly improved product or service that advances the range and quality of the product that is offered currently. Innovation, therefore, is considered an obvious means of generating revenue and thus improving performance (Kiragu, 2016).

In a recent review of research on innovation in insurance, Cummins and Pauline (2013), state that one of the most significant economic developments of the past decade has been the development of innovative risk-financing techniques in the insurance industry. Most of these market innovations are strongly related to pricing strategies, product package design properties, product placement and promotion activities along the lines of four P's of marketing (Kotler, 1991).

In the modern world of hyper competition, insurance companies do not only focus on product innovation, they also explore process innovation to create more value for their products, service delivery as well as reduce cost to consumers. Nadine et al. (2012), proved that contract parameter (i.e. the guaranteed interest rate and

the annual and terminal surplus participation rate), combinations maximize customer value in insurance industry.

Yet, in insurance the research on innovation has so far received poor attention from scholars, especially in empirical research. This article aims at filling that gap and present results from an empirical study of innovative activities carried out in the insurance sector in Sri Lanka. The main objective of this study is to determine the influence of innovation on performance of insurance companies in Sri Lanka. More specifically, it attempts to explore the different types of innovation processes employed by the insurance businesses in Sri Lanka, and the customer's perception towards those innovations.

Methodology

After an extensive literature and research review, the few independent variables available were identified for this purpose (Kiragu, 2016; Nadine et al., 2012). The conceptual model in Figure 1 outlines the relationship between innovation and performance, and the operationalization of study variables is summarized in Table 1.

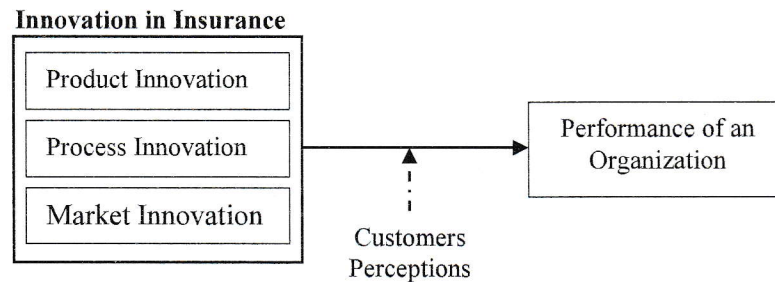


Figure 1 Conceptual framework

Due to the problem of empirical measurement of innovation and the specific characteristics of insurance industry, a questionnaire was designed using Q-Sort techniques, based on few focus group discussions. A sample survey was used with a total of 175 (n=175) customers selected from three insurance companies, which comprises one state-owned and two private insurance companies. Questionnaires were administered to the sample, and 168 were correctly returned, which represents a 96 percent response rate. Five-point Licker scale, ranging from 1=strongly disagree to 5=strongly agree was used to measure the customer perception towards the product, process and market innovation. The organizational performance was measured using company's average Net Profit after Tax (NPAT). Data was analyzed using SPSS statistical package (Ver. 17) for descriptive and inferential statistics.

Table 1 Operationalization of variables

Variable	Indicators
Product innovation	New goods or services, significantly improved goods or services, regarding characteristics or intended uses; including significant improvements in technical specifications, components and materials, incorporated software, user friendliness or other functional characteristics
Process innovation	New or significantly improved production or delivery method, including significant changes in techniques, equipment and/or software
Market innovation	New marketing methods, involving significant changes in product design or packaging, product placement, product promotion or pricing.

Source: Gunday et al. (2011), Hassan et al. (2013), Atalay et al. (2013), and OECD Manual (2005) – cited by Kiragu, R. W., (2016)

Results and discussion

The respondents were asked to indicate their demographic details and those are outlined in Table 2. Data established that the sample is dominated by middle-age (58%), male (64%), with secondary education (54%), and married (76%) respondents.

The insurance companies were asked to indicate the types of innovation introduced by them during 2013-2015. There were 14 innovations, and they indicated that process innovation was the most predominant type (64.3%), followed by product innovation (21.4%) and market innovation (14.3%).

Table 2 Sample profile

Demography		Freq.	Percent	Demography		Freq.	Percent
Gender	Male	108	63.9	Age	18-25	12	7.1
	Female	61	36.1		26-35	26	15.4
M Status	Married	128	75.7	36-45	98	58.0	
	UM	41	24.3	46-<	33	19.5	
Education	Primary	12	7.1	Income	< 50,000	51	30.2
	Secondary	91	53.8		50'- 100,000	86	50.9
	Tertiary	66	39.1		100,000 <	32	18.9

Cronbach's alpha was used to determine the internal consistency of these innovation to gauge its reliability. Since all coefficients are above 0.70 and indicates sound and reliable measures for further analysis.

Table 3 Reliability statistics

Independent Variables	Cronbach's alpha	Items
Product innovation	0.799	6
Process innovation	0.751	6
Market innovation	0.718	6

Product innovation and organizational performance: Based on the perception, respondents were tasked to rate the extent to which product, process, and market innovation can influence on performance of insurance industry. A scale of 1-5 was used where 1 indicates “*strongly disagree*”, and 5 indicates “*strongly agree*” respectively. The results are presented in Table 4.

Table 4 Innovations and organizational performance

Independent variable	Mean	SD	Max	Min
Product Innovation	4.18	0.723	5.0	3.0
Process Innovation	4.54	0.576	5.0	3.0
Product Innovation	3.43	0.836	5.0	2.0

The survey established that insurance companies with innovative processes have the ability to attract customers, which obtained a high mean of 4.54 (SD = .576). Moreover, it reveals that the customers believe that the “*innovative products can improve business performance in insurance industry*”, and ranked with a mean of 4.18 (SD = .723). The survey data further confirm that the customers are in the view of “*insurance businesses which invests in market innovation can enhance its market share by attracting new customers*” with a mean of 3.43 (SD = .836). The correlation matrix is used to determine the extent to which different innovations are associated with changes in company performances (i.e. average NPAT). The correlation analysis is displayed in Table 05.

Table 5 Correlation matrix

	Performance of Insurance firm	Product innovation	Process innovation	Market innovation
Correlation Coefficient	1.000	.874**	.687**	.569*
Sig. (2-tailed)		.000	.000	.031

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

Figures in Table 5 reveal that, from customer’s point of view, all the independent variables associated positively with performance insurance firm at varying degrees. Performance of insurance firm and product innovation had a positive correlation coefficient value of 0.874 ($p < 0.01$), and this is followed by process innovation ($r = .687$, $p < 0.01$), and market innovation ($r = .569$, $p < 0.05$).

Conclusion and recommendations

The main objective of the study was to assess the influence of innovation on performance of insurance companies in Sri Lanka. The results proven that out of the three types of innovation studied (i.e. product, process and market), process

innovation is the most predominant in the insurance industry. Further, it confirms that all three types of innovation positively and significantly influence on performance of insurance companies. Yet, of the three types of innovation surveyed, process innovation had the highest mean value indicating strong agreement level, followed by product innovation and lastly by market innovation, showing neutral agreement.

The study recommends that management of insurance companies in Sri Lanka should place greater emphasis on innovation in order to improve performance of their businesses. Further research should adopt a multiple informant approach, wider scope of study and the use of both objective and subjective measures to assess performance. These will give useful insight into the relationship between the variables under study.

Keywords: *Innovation, insurance, organizational performance, perception.*

References

- Cummins J. D., & Pauline B. (2013). Innovations in Insurance Markets: Hybrid and Securitized Risk-Transfer Solutions, *Handbook of Insurance*, 547-602
- Damanpour, F. (1991). Organizational innovation: A meta-analysis of effects of determinants and moderators, *Academy of management journal*, 34(03), 555-590
- Kiragu, R. W. (2016). *Influence of Innovation on performance of Insurance companies in Kenya* (Thesis), Strathmore University, Retrieved from <http://su-plus.strathmore.edu/handle>
- Kotler, P. (1991) *Marketing management*, 7th Editorial: Prentice-Hall. New Jersey
- Nadine G., Ines H., & Hato S. (2012). Creating Customer Value in Participating Life Insurance, *The Journal of Risk and Insurance*, 79 (03), (September), 645-670