

TESTIFYING THE MEDIATING ROLE OF INNOVATION IN KNOWLEDGE MANAGEMENT AND ORGANISATIONAL PERFORMANCE RELATIONSHIP

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Abstract *The purpose of this paper is to assess the synergistic impact of knowledge management (KM) on organisational performance (OP). Further, this paper testified the mediating role of innovation in the relationship between knowledge management and organisational performance. Primary data has been collected through self-modified and well-structured questionnaires, which were distributed among employees working in the general insurance sector of the Jammu District of J&K, by using the census method. Secondary sources investigated were books, newspapers, and relevant journals. Extensive review of literature has been conducted to frame the dimensions of the construct, namely knowledge management, innovation, and organisational performance. Questionnaires have been duly purified and validated before data analysis. Structural equation modelling technique has been used to assess the impact of knowledge management on organisational performance. The results revealed a significant and positive impact of KM on OP. Furthermore, the Baron and Kenny approach has been used to testify the mediating role of innovation, and the results found a partial mediation, which signifies the existence of a direct relationship between KM and OP, as well as an indirect relationship through innovation. The respondents might have given the information regarding knowledge management, innovation, and organisational performance on the basis of their own perception. In order to implement an effective knowledge management system, management should create a culture conducive to learning and knowledge.*

Keywords: *Knowledge Management, Innovation, Organisational Performance, General Insurance, Moroccan*

INTRODUCTION

Today, every organisation is facing global, economic, social, and political turmoil, which impels organizations to adapt and transform new management styles, values, and methods at the workplace. Global competitiveness has created incredible alternatives for businesses to expand their peripheries across the globe. In order to endure in the global market, organisations must learn to meet customer's expectations and demands by providing outstanding goods and services compared to their contenders, and leverage their knowledge curve in an innovative way. As a result of technological advancement, hyper competition, explosion of information, desertion of bureaucratic working models, transformed lifestyle and outlook of the customers, and unpredictable changes, the insurance sector is moving towards a knowledge era (Zack, 2002). The insurance industry has instigated a number of innovative products and services to provide customised products to their clients and promoted bancassurance, de-tariffing, and digitalisation, which contributes towards its overall growth. Compared to life insurance, the penetration of the general

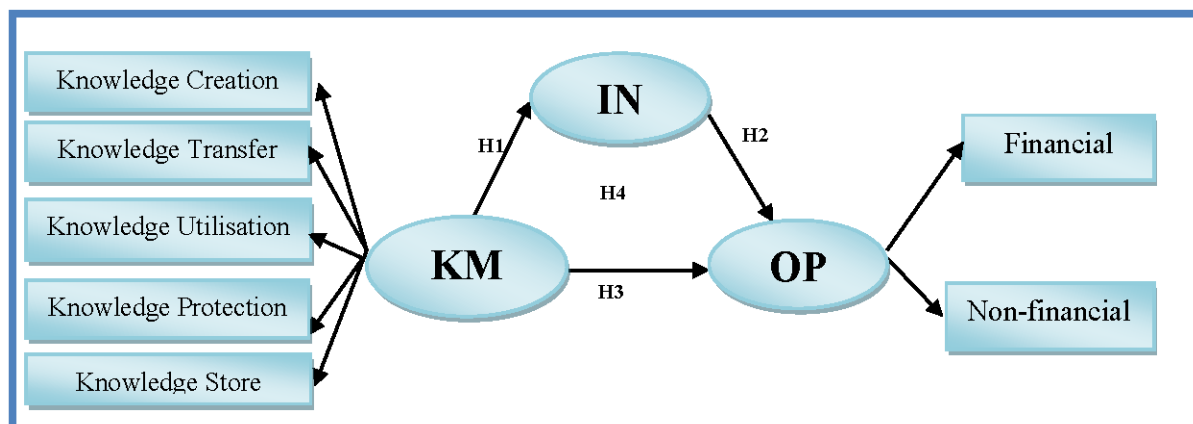
insurance market is not satisfactory and principally remains untapped in both rural and urban India. The moderate returns and transformation of societies, markets, customers, competition, and technology has necessitated general insurance organisations to align their action on construction and incorporation of innovative knowledge, and adopt the practices of knowledge management. In the emerging competitive environment, knowledge is regarded as a most powerful tool that can make changes to the world by gaining maximum benefits. To gain great benefits, general insurance companies are also employing knowledge management practices to compete with others. Knowledge management is regarded as one of the best alternatives for taking more firm decisions, generating more potential and synergy, reducing errors and mistakes, building an embedded system, driving creativity and innovation, encouraging knowledge allocation, and achieving competitive advantage. Further, it enables the companies to improve their service quality, diminish their cost, and swiftly respond to their customers (Grant, 1996). Indeed, the general insurance sector assembles, accumulates, and dispenses specialised knowledge to initiate a prolonged competitive advantage (Davenport et al., 1998).

Empirically, knowledge management leads to increased turnover, high market share, expansion of financial services, superfast economic growth, increased opportunities for advancement and employees' engagement, adaptation to change, innovation, and maximising the organisation's non-financial performance (Nonaka, 1994). Thus, this paper analyses the synergistic impact of knowledge management (KM) on organisational performance (OP) and also testifies the mediating role of innovation (IN) in the relationship between KM and OP in the general insurance sector of the Jammu district.

LITERATURE REVIEW

Today, every organisation is inclined towards attaining the top position in the market and this success is progressively acquired through the effectiveness of the organisation. Organisational effectiveness is dependent on the potential and determination of employees towards work, their aptitude, skill, learning and knowledge, and match up of that knowledge with the potency of every individual working in the organisation. Knowledge management (KM) is a key skill for business organisation, and regarded as a systematic plan that ensures full utilisation of the accessible potentials, to form a more effectual and competent workforce. It consists of formation and allocation of knowledge to increase competitiveness of the organisation. Abuaddous and Abdullah (2018) opined that KM helps in elevating the growth prospects and amplified productivity by taking advantage of organisational information and exchanging implicit knowledge. Many academicians viewed KM from two perspectives, namely knowledge infrastructure capabilities of a firm, e.g., technology infrastructure, organisational structure, and culture; and knowledge process capability of a firm, including knowledge acquisition,

conversion, application, protection, and so on (Mills & Smith, 2009; Ho, 2010). Organisations can embrace varied stratum and amalgamation of knowledge facilitator and procedures to construct knowledge capability. Carmeli and Tishler (2004) observed it as a combination of organisational cultural values, strategy, and flow of work, which positively impact the working culture within the organisation, and hence, increases employees' performance. Besides, Gopal and Joy (2011) considered KM as a technique of utilising knowledge resource (data and information) to make it available at the required time, facilitating the tactical and strategic operational actions in the organisation. Kovacic et al. (2011) found knowledge management as the process of acquisition, assimilation, and use of knowledge which helps the organization to achieve business objectives. Chawla and Joshi (2011) add knowledge retention and determines it as a knowledge flow inside firms, which is encouraged through the culture of openness. Knowledge is a prerequisite and the main intent for innovation and competitiveness, which boosts the performance of an organisation (Abraham, 2008). Darroch (2005) examined that knowledge management operates as a synchronous apparatus, to enhance both innovation and organizational performance. Rahimi et al. (2017) opined that knowledge management facilitates resources and course for tacit knowledge, which broaden the creativity and innovation system, further leading to performance of the business unit. Byukusenge and Munene (2017) explored that knowledge management helps employees deal with uncertainties and internal and external changes, by crafting an innovative culture. In addition, it encourages the organisations to be more receptive, creative, resourceful, and cost effective, promoting them to deal with uncertainties and changes, and adapt them, which mounted the performance curve. On the basis of the aforementioned literature review, the model shown in Fig. 1 has been proposed for the study.



Keywords: KM – Knowledge Management, IN – Innovation, OP– Organisational Performance

Fig. 1: Proposed Model

METHODOLOGY AND DATA ANALYSIS

Data have been gathered from both primary and secondary sources to elicit information pertaining to knowledge management practices, innovation, and organizational performance. The primary data were collected using the census method, by distributing 566 questionnaires among employees working at three managerial levels (top, middle, and low). Four public sector companies were contacted: National Insurance Company Limited, New India Assurance Company Limited, Oriental Insurance Company Limited, and United Indian Insurance. Eight private sector companies were contacted: IFFCO Tokio, Universal Sompo, Tata AIG, Bajaj Allianz, ICICI Lombard, Future Generali, Reliance, and HDFC Ego. The adapted questionnaire consisted of two sections, where section one contained general information and section two included specific information in the form of five-point Likert Scale, where 5 indicated strongly agree and 1 strongly disagree. Out of 566 questionnaires, 510 effective responses were received, which represented a 91.1% response rate. Secondary data were extensively reviewed from the relevant literature related to the research topic from varied sources, including books, newspapers, and relevant journals.

The collected data were purified with the help of descriptive statistics, including mean, standard deviation, and frequency distribution. Afterwards, outliers were identified by using box-plot method and estimated by range method, i.e. (maximum – minimum)/2. After removal of 12 outliers, the effective sample came to 498 respondents. Further, normalcy

of the data was ensured through the graphical method, using QQ plot, and then through Skewness and Kurtosis techniques. After normalcy of the data, exploratory factor analysis (EFA) technique was carried out with principal component analysis (PCA) along with orthogonal rotation procedure of varimax, for the summarisation of the original information into manageable factors. Initially, the items with factor loading less than 0.5 and Eigen value less than 1.0 were not taken into account for the succeeding analysis (Hair et al., 2006). The factors extracted after EFA were five of KM (knowledge creation, sharing, utilisation, protection, and store), two of innovation (magnitude of innovation and capability), and two of OP (financial and non-financial). The KMO value and Bartlett's test of sphericity (Chi-square values) of each dimension revealed the sampling adequacy of the factor analysis. After EFA, extracted factors were confirmed by applying second-order confirmatory factor analysis (CFA) technique, which assessed fitness, reliability, and validity of latent constructs. All the models were predicted a good fit values, with SRW above 0.50 (indicating convergent validity); goodness of fit indices, namely GFI and AGFI were closer to 0.9; and incremental fit indices, namely NFI, CFI, TLI, and IFI were also found closer to 0.9. The value of χ^2 was less than 5.0, and RMR and RMSEA values were less than the threshold value of 0.08 (Table 1). Further, Cronbach's alpha has checked the reliability constructs and were found to be above the threshold criteria of 0.70 (Nunnally, 1978). Convergent validity has been established as average variance extracted (AVE) was above 0.50. Discriminant validity has been observed as square-root of AVE is larger than correlation coefficient.

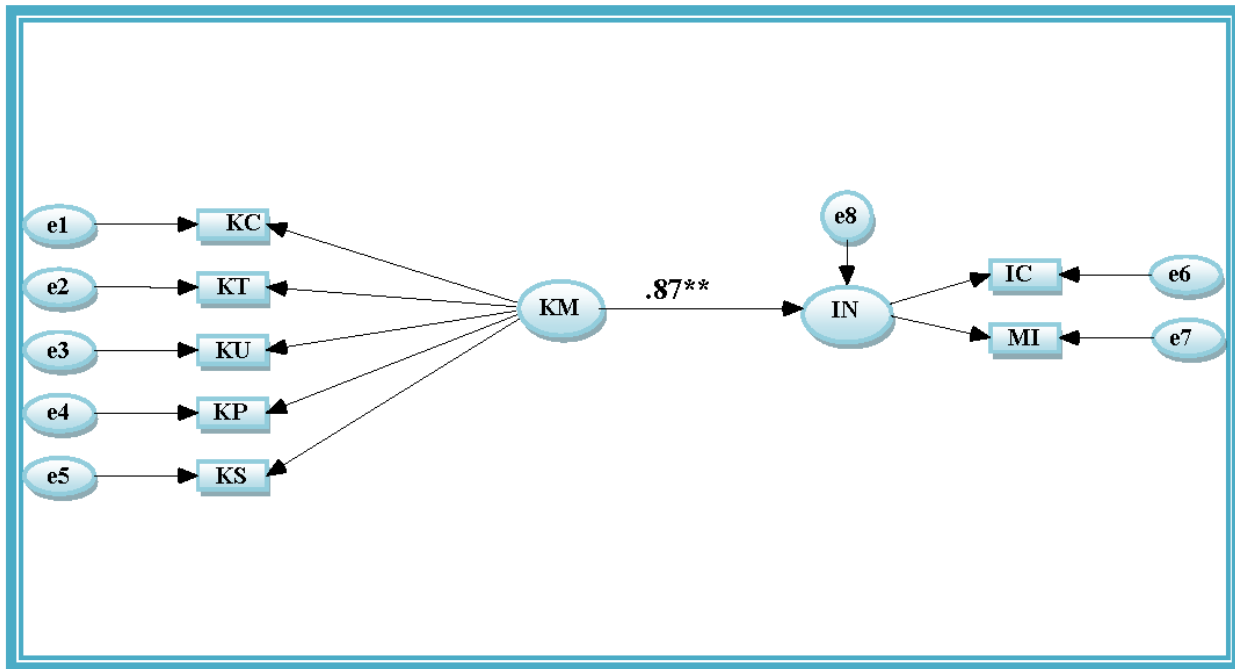
Table 1: Fit Indices

Constructs	χ^2/df	GFI	AGFI	RMR	RMSEA	TLI	NFI	CFI
Knowledge Management	2.021	0.956	0.978	0.024	0.032	0.939	0.905	0.928
Innovation	2.340	0.948	0.938	0.028	0.059	0.976	0.939	0.934
Organisational Performance	1.121	0.965	0.978	0.018	0.029	0.968	0.978	0.969

RESULTS

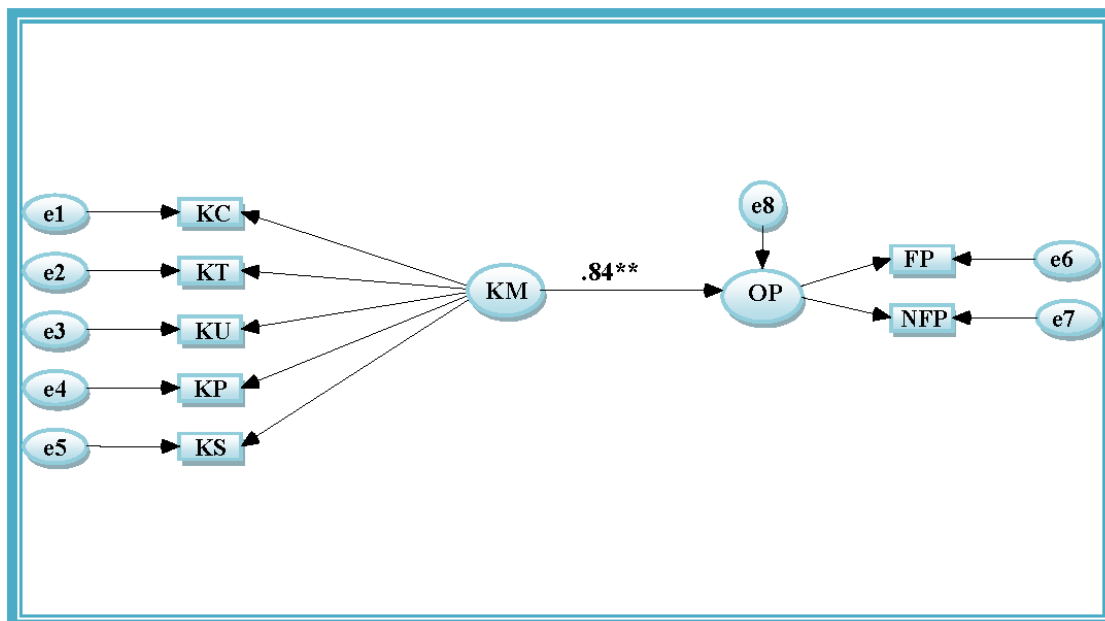
After application of CFA, the hypothesised relationships were tested by constructing structural equation modelling technique. SEM models revealed a robust fit, as all the values were vigorously suitable to the threshold criteria, where SRW is above 0.50, value of χ^2 is less than 5.0, RMR

and RMSEA values are less than 0.08, and the values of GFI, AGFI, NFI, CFI, TLI, and IFI are closer to 0.9 (Table 1). All the models pertaining to the impact of KM on innovation (SRW=0.87, $p<0.005$) (Fig. 2), direct impact of KM on organisational performance (SRW=0.87, $p<0.000$) (Fig. 3), and impact of innovation on organisational performance (SRW=0.79, $p<0.000$) (Fig. 4), revealed acceptance of all the hypotheses (Table 2).



Keywords: KC (Knowledge Creation), KS (Knowledge Transfer), KU (Knowledge Utilisation), KP (Knowledge Protection), and KS (Knowledge Store) are the manifest variables of the latent construct of KM (Knowledge Management), IN (Innovation), IC (Innovative Capabilities), and MI (Magnitude of Innovation), and e1-e8 are error terms.

Fig. 2: Impact of KM on Innovation



Keywords: KC (Knowledge Creation), KS (Knowledge Transfer), KU (Knowledge Utilisation), KP (Knowledge Protection), and KS (Knowledge Store) are the manifest variables of the latent construct of KM (Knowledge Management), FP (Financial performance) and NFP (Non-financial performance) are the observed variables of OP (Organisational Performance), e1-e13 are the error terms.

Fig. 3: Impact of KM on OP



Keywords: MI (Magnitude of Innovation) OP (Organisational Performance), FP (Financial Performance), NPF (Non-financial Performance), and e1-e5 are the error terms.

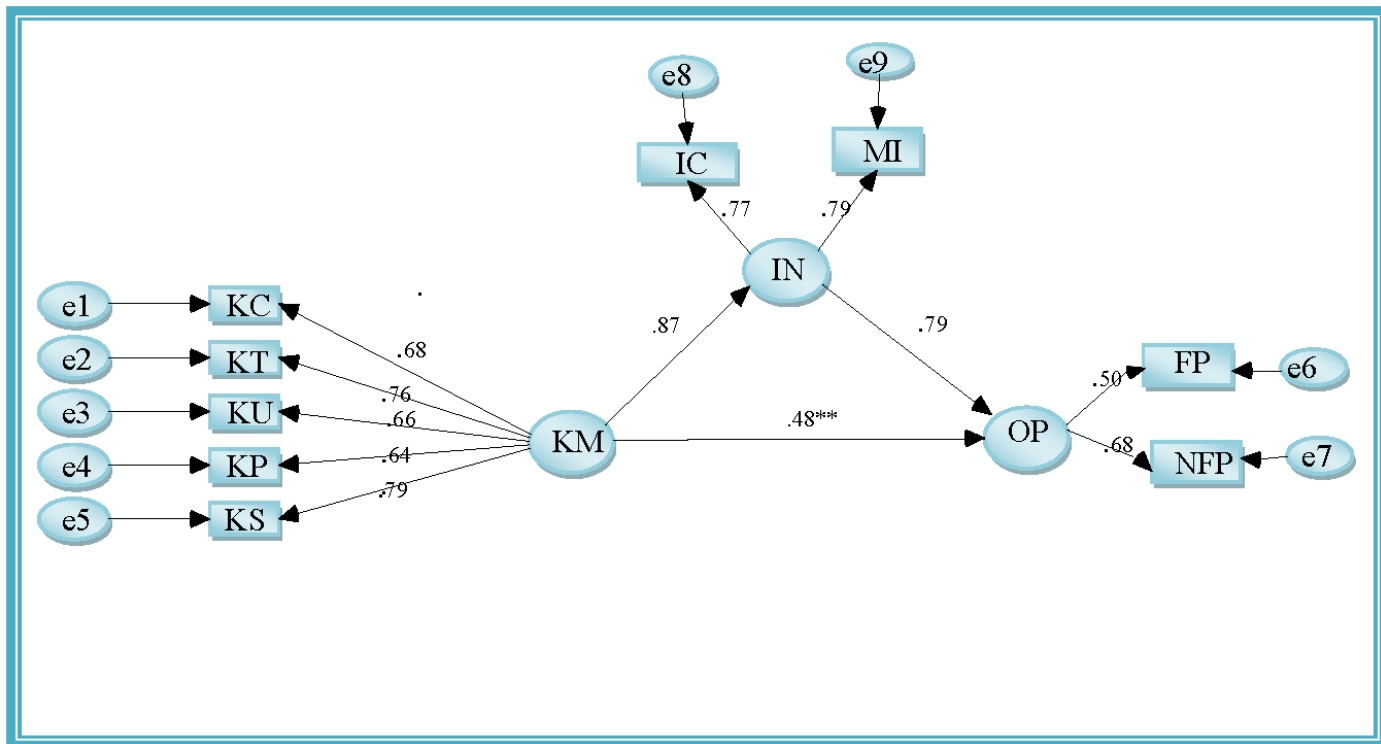
Fig. 4: Impact of IN on OP

Table 2: SEM Models

Models	CHI-SQ	RMR	GFI	AGFI	NFI	CFI	RMSEA
KMàOP	2.712	.026	.985	.976	.967	.959	.043
KM→IN	1.216	.011	.989	.973	.988	.978	.019
INàOP	1.314	.989	.976	.963	.947	.967	.019

The integrated model showed hypothesised relationships between latent constructs, which is indicated by the single-headed arrows. It consists of three paths: (a) path from

KM to IN, (b) path from KM to OP, and (c) path from IN to OP. Overall, 12 paths have been outlined, which represent significant model fitness ($\chi^2/df=3.113$, GFI=0.923, AGFI=0.913, CFI=0.895, TLI=0.895, NFI=0.857, RMR=0.042, RMSEA=0.067). After applying Baron & Kenny's (1986) method of mediation, the results of the study support partial mediation, in step 4, when mediator (IN) is entered between KM and OP (SRW=0.48, $p<0.005$) (Table 3), the direct relationship between the two reduces, but becomes significant (Fig. 5).



Keywords: KC (Knowledge Creation), KS (Knowledge Transfer), KU (Knowledge Utilisation), KP (Knowledge Protection), and KS (Knowledge Store) are the manifest variables of the latent construct of KM (Knowledge Management), IN (Innovation), IC (Innovative Capabilities), MI (Magnitude of Innovation), OP (Organisational Performance), FP (Financial Performance), NPF (Non-financial Performance), e1-e8 are the error terms.

Fig. 5: Integrated Model

Table 3: Mediating Role of Innovation in KM-OP Relationship

Steps	Relationship	SRW and p-Value
1	KM→OP	.84(p<0.005)
2	KM→IN	.87(p<0.005)
3	IN→OP	.79(p<0.005)
4	KM→IN→OP	.48(p<0.005)

Hence, the hypotheses 'Knowledge management has a significant impact on inputs innovation (SRW=.87, p<.01) is accepted. Further, innovation significantly affects organisational performance, with SRW 0.79 and p-value <.01; knowledge management has a direct and positively significant impact on organisational performance, with SRW 0.84 and p-value <.001, which was also accepted. In addition, it has been identified that innovation partially mediates the relationship between learning organisational inputs and organisational performance (Table 4).

Table 4: Results of Hypotheses Testing

Hypotheses	SRW	p-Value	Accepted/Rejected
H1: Knowledge management has a significant impact on inputs innovation.	.87	<.01	Accepted
H2: Knowledge management has a direct and positively significant impact on organizational performance.	.84	<.001	Accepted
H3: Innovation significantly affects organisational performance.	.79	<.01	Accepted
H4: Innovation mediates the relationship between learning organizational inputs and organizational performance.	Partial Mediation Accepted		

LIMITATIONS

Viable efforts have been made to advocate reliability, validity, and objectivity of the study. However, a few limitations cannot be ruled out. The respondents might have given the information regarding knowledge management, innovation, and organizational performance on the basis of their own observations. Further, this study is confined to the general insurance sector.

DISCUSSION AND WAY FORWARD

Knowledge is considered an essential asset in any organisation. Thus, the general insurance sector is applying knowledge management practices to improve their organizational performance. This article has found a significant and positive impact of knowledge management on innovation and organizational performance. Dimension-wise knowledge creation has the least impact on innovation, followed by knowledge protection. Knowledge transfer highly influenced innovation, followed by knowledge utilisation and store. In the case of KM practices impact on OP, knowledge transfer, utilisation, and store have a high positive and significant impact on financial and non-financial performance. Knowledge creation and protection has the least impact on innovation and organizational performance. Further, this study found a partial mediating role of innovation in the relationship between KM and OP. This implies that knowledge resources that are acquired, shared, and applied must be used to improve the quality of products, production processes, and markets in order to achieve improved business performance. The main contribution of this research is to provide evidence that KM leads to enhanced innovation and performance. Furthermore, innovation is found as a partial mediator in the aforesaid relationship, which reveals that the independent variable (KM) has a direct, as well as indirect, impact on the dependent variable (OP). Overall, this study indicated that KM practices have a direct impact on organisational performance and innovation. In order to implement an effective knowledge management system, senior management should create a culture of sharing and communication, teamwork, and trust, and must adopt a multi-tasking approach to enhance employees' capacity and skills of managing knowledge. Management should persuade their employees to embrace extensive use of the Internet, technology, workbooks, publications, and journals to augment their professional knowledge. There should be organisation of knowledge-related seminars, conferences, meetings, and workshops to encourage employees to update their knowledge basket. E-learning modules should be provided to managers and employees to keep them updated about insurance-related subjects such as risk management, risk calculation, claim handling, balance sheet, novel policies and strategies, extent of market shares, resource distribution, and the new guidelines of IRDA. General insurance companies are not much sturdy in implementing high-tech innovative expertise. Therefore, management should train employees in the use of new technologies, such as the internet of things (IoT), the global positioning system

(GPS), cloud computing, advanced analytics, telematics, mobile phones, digital platforms, drones, block-chain, smart contracts, and artificial intelligence (AI). There should be a monetary and non-monetary reward system for those employees who show a willingness to avail training.

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