

ONLINE CHANNEL USAGE INTENT BY INSURANCE AGENTS IN AN EMERGING MARKET CONTEXT

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Abstract

Insurance is a complex product and is normally sold through intermediaries like individual insurance agents, corporate insurance agents, or an insurance broker. The new trend in insurance marketing is to sell the insurance policies through the Internet. Though the Internet is changing the way customers engage with insurers, traditional channels remain important. The agent intermediaries continue to play a crucial role in the sales cycle in India. The present study looks at the online channel adoption intent of the insurance agents for their work related activities through the development of e-consumption model. Our e-consumption model has taken variables from the existing literature like System Quality, Information Quality Perceived Usefulness, Perceived Ease of Use to understand the agents' technological self-efficacy and has introduced motivating and coercing role of the insurer viz., Management Intervention in terms of training for technology and information access mandated by the company through the Agents' Portal. It is found that the motivating role of the insurer is i.e., training for technology is more effective in influencing behavioural intention than the coercive role namely info access mandated by the insurer. It is also found that System quality and information quality of insurance company websites play a crucial role in determining the PEOU and PU via Perceived Benefits.

Keywords:

E-Consumption Model, Online Channel Adoption, Insurance Agents, Training for Technology, Technology Usage Intent

1. INTRODUCTION

The Insurance Regulatory and Development Authority (IRDA) of India envisaged the opening up of the online channel for insurance marketing as a strategic move towards promoting healthy competition and protection of rights of policy holders by bringing more transparency to the provider client relationship. An analysis of Indian insurance companies' web-presence covering the population of 44 private and 7 public sector players registered with the IRDA as of June 2013 shows that 51 including 24 life and 27 non-life insurance providers have an Informational web presence through their own websites. Further, 21 out of the 24 life insurance companies have a Transactional web presence providing online account and online premium payment facility for their existing customers and 14 have the facility of online purchase of insurance products [1]. The set of products sold wholly online is limited as determination of premium requires risk assessment through offline physical verification of documentary evidence directly uploaded by the customer or by an insurance agent. The online channel is thus designed to complement and support traditional channels like the agents and brokers by providing product detail information,

product updates, comparison, lead generation, sales and post-sales service support to their potential and existing customers. Although some agents and brokers may not survive in the e-commerce enabled environment, others will adapt and prosper [2]. Dasgupta and Sengupta [3] attributed the slow adoption of e-commerce by the insurance industry in India to lack of appropriate software infrastructure, non-awareness among customers and security concerns.

E-commerce in India is in its nascent stage and promises high growth potential with revenues set to increase by more than five times by 2016, jumping from US\$1.6 billion in 2012 to US\$8.8 billion in 2016 [4]. Insurance being a complex product, agent intermediaries - individual insurance agents, corporate insurance agents, and insurance brokers - play a crucial role in the sales cycle. Although traditional channels remain important, with online banking gaining ground, the online channel is expected to change the way customers engage with insurers too [5]. Notwithstanding the fact that the agency channel dominates the channel mix, the KPMG 2013 report on the Indian insurance industry predicts that banc-assurance is expected to drive near term growth and online channel holds promise for the future [6].

There are undoubted efficiencies from using the online channel although the pace of adoption is slow. With increasing pace of adoption, gains can accrue in terms of reduction in transaction cost, introduction of competitive products due to flexibility and speed of information dissemination, and expansion of market and lead generation through the Internet [7]. As per IRDA 2012-13 Annual Report 77.53% of individual new business of life insurance sector has come through individual agents, 16.18% from corporate agents and 6.29% from other intermediaries [8]. In this backdrop of the push given by the IRDA to usage of online channel for insurance and commitment to online channel presence by insurance companies, this paper models the drivers of online channel usage intent by insurance agents as the target group making the largest contribution to insurance sales in India.

2. REVIEW OF LITERATURE

The extant literature has to be seen under two headings:

- 1) Models of technology acceptance and usage
- 2) Acceptance of online channel as a new technological option

2.1 TECHNOLOGY ACCEPTANCE

Researchers have proposed and tested various models of consumer/individuals' acceptance of technology for personal and work use.

Table.1. Models of Technology Acceptance

TAM [9]	1989	Based on the Theory of Reasoned Action; perceived usefulness and perceived ease of use influence users' attitudes and intentions to computer adoption behavior.
TAM 2 [10]	2000	Perceived Usefulness linked to social influence process and cognitive instrumental process.
Technology Readiness Index [11]	2000	Individual's Technology Readiness based on two positive factors Optimism and Innovativeness and two negative factors Discomfort and Insecurity
Unified Theoretical Model [12]	2003	Intention to use technology based on performance expectancy, effort expectancy, social influence, and facilitating conditions; and age, gender, experience and voluntariness
TAM 3 [13]	2003	Experience moderates effect of perceived ease of use on perceived usefulness; determinants of perceived ease of use (computer self-efficacy, perceptions of external control, computer anxiety, computer playfulness, perceived enjoyment, and objective usability) will not have any significant effects on perceived usefulness over and above the determinants of perceived usefulness

2.2 ONLINE CHANNEL ACCEPTANCE AND USAGE

Steven A. Taylor, Kevin Celuch, and Stephen Goodwin [14] developed an e-consumption model for insurance agents. Based on the concept of internal marketing, this model considers whether an agent perceives greater quality, value, satisfaction, and loyalty in his relationship with his company and how this affects the likelihood of agents engaging in desirable marketing-related technology behaviors in company related and customer related interactions. The results suggest that quality and cost and agent satisfaction play a vital role in the intention to use technology.

Updated D&M IS Success Model [15] measures the success of the online channel by evaluating it in terms of service quality, system quality and information quality. The intention to use the online channel depends on the satisfaction towards these factors.

System quality and Information quality are direct determinants of ease of use and usefulness respectively [16]. Gender plays a role with respect to online channel adoption. Men consider perceived usefulness to a greater extent than women in making their decisions regarding the use of a new

technology. On the other hand, perceived ease of use was more important to women for the same [17].

3. HYPOTHESES AND MODEL DEVELOPMENT

Drawing upon the existing literature, we propose a model and empirically test the drivers and accelerators of online channel adoption intent by insurance agents. We propose that usage is mediated by Management Intervention MI by the insurance companies including a) training for technology (Motivation) and b) information system usage mandated by the company (Coercion). Online channel Usage Intensity (UI) is measured in terms of current usage level of the websites for understanding policy features, competitors' products, buying leads, and so on. Perceived Benefits (PB) are measured in terms of being able to provide better after sales service, suggesting the right products as per customer needs and improving customer satisfaction. Using variables from existing literature – System Quality (SQ) and Information Quality (IQ) [15], Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) [9], we explore the role of MI by insurance companies. The model looks at the mediating role of Management Intervention on PU and the impact of PU on Behavioural Intention (BI).

The following are the hypotheses of this study:

System quality and Information quality are the direct determinants of ease of use and usefulness respectively [16]. We have extended on this and introduced two new variables: Online Channel Usage Intensity is measured in terms of current usage level of the websites for understanding the policy features, competitors' products, buying leads, and so on. Perceived Benefits is measured in terms of better after sales service, suggesting the right products as per customer needs, and higher customer satisfaction. We hypothesize that if the agents current online channel usage is high they tend to have higher PEOU and PB.

- H1: System quality has a positive and significant impact on Perceived Ease of Use.
- H2: Online Channel Usage Intensity has a positive and significant impact on Perceived Ease of Use
- H3: Information quality has a positive and significant impact on Perceived Benefits.
- H4: Online Channel Usage Intensity has a positive and significant impact on Perceived Benefits

It has been proved that PEOU has a positive impact on PU [9], [12], [13]. Technology plays an important part in enhancing the efficiency of processing new business leads [18] and the net/expected benefits of adoption of a technology has a positive impact over adoption intention [19], [20]. So we hypothesize the following relationships:

- H5: Perceived Ease of Use has a positive and significant impact on Perceived Usefulness.
- H6: Perceived Benefits has a positive and significant impact on Perceived Usefulness.
- H7: Perceived Usefulness has a positive and significant impact on BI.

We now study the impact of management intervention by the insurance companies on the behavioral intent of the agents.

Earlier studies have proved that effectiveness of training on technology adoption depend on the employers' ability to understand Technology Readiness of the employees [21], efficiency of staff in providing support in agents' selling activities [22], the conducive facilitating condition [23], top management support [24] rather than external pressure or competition intensity [25]. In insurance companies in India, all the agents are compulsorily given training both on generic and specific programmes like using the agent portal. They are also expected to carry out activities like checking the policy status, issuing premium receipt, checking the claims status of their clients without depending on the branch office. Thus our study not only explores the motivating role of the company but also their coercive role in technology adoption and we hypothesize the following relationships:

- H8: Training for technology positively mediates the relationship between PB and PU.
 H9: Training for technology positively mediates the relationship between PEOU and PU.
 H10: Info access mandated by the company positively mediates the relationship between PB and PU.
 H11: Info access mandated by the company positively mediates the relationship between PEOU and PU.

The proposed research model is presented indicating the hypothesized relationships between the study variables as seen from existing literature and the moderating / mediating role of the new variables introduced in this study.

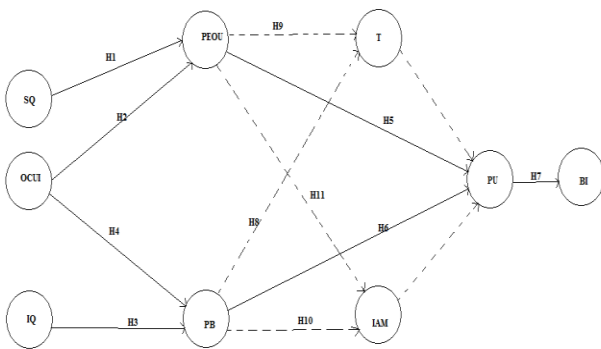


Fig.1. Proposed Model for Online Channel Usage Intent by Insurance Agents

Labels: SQ: System Quality; OCUI: Online Channel Usage Intensity; IQ: Information Quality; PEOU: Perceived Ease of Use; PB: Perceived Benefits; PU: Perceived Usefulness; T: Training for Technology usage; IAM: Info Access Mandated; BI: Behavioural Intention.

4. RESEARCH METHODOLOGY

Primary data was collected through personal interviews with 406 agents during the period June 2013 – May 2014. The inclusion criterion was being a Club member i.e., Insurance Agents who have sold a minimum of 20 net number of lives covered every year. Independent variables included the agents' demographic profile and their Internet usage pattern.

The study variables included the respondents' perceptions on usage of online channel for their work measured on a 5-point Likert scale. New variables included for the study were Perceived Benefits, online channel Usage Intensity, Training for technology and Information system access mandated by the company. A 43 item questionnaire was prepared: 21 items were drawn from existing literature and 22 items were constructed for the study. Partial Least Squares Structural Equation Modelling (PLS-SEM) using Smart PLS [26] was used to test the research model. IBM SPSS Statistics 20 was used for Exploratory Factor Analysis. Discriminant, Congruent and Convergent Validity were tested with PLS SEM. Mediation effects of the variables were also tested through bootstrapping technique and Sobel Test [27], [28].

5. FINDINGS AND DISCUSSION

The profile of the respondents sample included both male and female insurance agents working for public and private sector companies, marketing life and non-life insurance policies and with a work experience ranging from less than 5 years to more than 10 years. Younger as well as senior and older agents were included and information on their Internet usage pattern was also obtained. Table.2 presents the demographic and behavioural profile of the sample respondents.

Table.2. Demographic and Behavioural Profile of Insurance Agents N = 406

Insurance Agents Profile	Classification	Respondents %
Age	20-30	6.4
	31-40	34.2
	41 and above	59.4
Work Experience	Less than 5 years	17.0
	5-10 years	24.9
	More than 10 years	58.1
Education	HSC /Diploma	24.6
	UG	49.3
	PG	26.1
Gender	Male	83
	Female	17
Sector	Public	78.1
	Private	18.2
	Public and Private	3.7
Type of Insurance	Life	77.8
	Non-life	11.8
	Life and Non-life	10.4
Time spent online per day	Less than 2 hours	58.9
	2-4 hours	18.7
	More than 4 hours	

An exploratory factor analysis using Promax rotation with Kaiser Normalization (converged in 9 iterations) was performed on the 43 items instrument resulting in reduction to 37 items and identification of 9 underlying factors explaining 76.3 percent of the variance. KMO and Barlett's test value was 0.941 which was well above the recommended value of 0.6 for sample adequacy and the result was significant at $p < 0.001$. Factors with Eigen value greater than 1 and factor loading greater than 0.40 were retained. Table.3 shows the 9 factors all of them exhibiting high reliability values.

Table.3. Factors and Reliability Measures

Variables / Factors	AVE	CR	R-square	Alpha
Training –8 items with Loadings > 0.85	0.73	0.95	0.58	0.94
System Quality –5 items with Loadings > 0.88	0.79	0.95	0.00	0.93
Perceived Benefits –4 items with Loadings > 0.89	0.80	0.94	0.51	0.91
Info access Mandated –3 items with Loadings > 0.90	0.83	0.94	0.36	0.90
Information Quality –4 items with Loadings > 0.92	0.83	0.95	0.00	0.93
Online Channel Usage Intensity –3 items with Loadings > 0.84	0.68	0.87	0.00	0.77
Perceived Ease of Use –4 items with Loadings > 0.88	0.84	0.95	0.40	0.94
Behavioural Intention –3 items with Loadings > 0.94	0.89	0.96	0.74	0.94
Perceived Usefulness –4 items with Loadings > 0.92	0.86	0.96	0.73	0.95

5.1 RESULTS OF RELIABILITY AND VALIDITY MEASURES

From Table.3 the reliability and validity measures have been found to be acceptable. All the indicator items have been found to have adequate reliability as per accepted criteria. [29], [30], [31]. Indicator reliability values are above the acceptable level of 0.4 [32]; composite reliability values are above the accepted level 0.7 [33] and hence exhibit adequate construct reliability. Convergent validity is established as each latent variable’s Average Variance Extracted (AVE) is greater than 0.5 [33].

Table.4. Comparison of inter-construct correlation with AVE for discriminant validity

	BI	IQ	OCUI	PB	PEOU	PU	SQ	T	IAM
BI	0.94								
IQ	0.60	0.91							
OCUI	0.36	0.37	0.83						
PB	0.64	0.68	0.43	0.89					
PEOU	0.79	0.63	0.45	0.60	0.91				
PU	0.72	0.63	0.39	0.69	0.82	0.93			
SQ	0.53	0.70	0.38	0.59	0.59	0.53	0.89		
T	0.72	0.63	0.33	0.64	0.70	0.76	0.50	0.85	

Table.4 shows the values of square root of AVE on the diagonal exhibiting adequate discriminant validity as the square root of AVE is larger than other correlation values among the latent variables [34], [35].

5.2 RESULTS OF HYPOTHESES TESTING THROUGH PLS-SEM

Table.5 shows the results for the testing of hypotheses. System quality of the insurance websites ($\beta = 0.487$) and online channel usage intensity of the agents ($\beta = 0.262$) have a significant and positive impact on perceived ease of use. SQ has a stronger influence and SQ and OCUI together explain 40.3% of variance of PEOU. Information quality ($\beta = 0.608$) and OCUI

($\beta = 0.206$) have a significant and positive impact on Perceived Benefits. The influence of IQ is stronger than OCUI and they both explain 50.6% of variability of PB. PU is dependent on PEOU and PB. PEOU has greater impact on PU than PB. Perceived Usefulness PU has a strong impact on Behavioral intention BI ($\beta = 0.839$). The factors in the model explain 70.4% variability of BI.

Table.5. Results of Hypotheses Testing ****p < 0.001

	Hypotheses	Path Co-efficient	T-test statistics	Result
H1	SQ → PEOU	0.487	5.124****	Supported
H2	OCUI → PEOU	0.262	2.674****	Supported
H3	IQ → PB	0.608	9.412****	Supported
H4	OCUI → PB	0.206	2.723****	Supported
H5	PEOU → PU	0.635	8.788****	Supported
H6	PB → PU	0.305	4.099****	Supported
H7	PU → BI	0.564	6.413****	Supported

5.3 MEDIATION ANALYSIS

Table.6 presents the results of mediation analysis. It can be inferred that Motivating role of the insurer i.e. Training for technology for agents, positively and significantly mediates the relationship between PB and PU, PEOU and PU. But the mediation is partial with significant indirect effect. Similarly, the mandatory role of the insurer namely the info access mandated by the insurer through usage of agents’ portal positively and significantly mediates the relationship between PEOU and PU, PB and PU though the mediation is partial. Thus it can be seen that Management Intervention through mandatory and non-mandatory role definitely has a crucial role over Agents’ perceived usefulness in using the online channel for their work.

By comparing the total effects and direct effects for the paths PB-T-PU, PB-IAM-PU, it is clear that total effects are stronger than the direct effects and it is also observed that the effect of training is more than the IAM in the relationship between PB and PU. In the case of PEOU too total effects are stronger than the direct effect between PEOU-T-PU and PEOU-IAM-PU and again training has emerged as a stronger mediator than IAM. Thus it is felt that the motivating role of the insurer i.e., training has more impact than the coercive role of the company by mandating usage of the agents’ portal for their work (Info access mandated).

5.4 MODERATED MEDIATION

Moderated mediation analysis is performed for the paths PB-T-PU, PB-IAM-PU, PEOU-T-PU, PEOU-IAM-PU. The moderators are age of the agents, educational qualification and time spent online for work by the agents and the actual usage intensity of the online channel. Moderated mediation results (Tables.7, 8, 9 and 10) reveal that training on technology seems to be effective for agents who are above 40 years, who spend less than 2 hours in a day online for work and who have low usage intensity of the Internet in translating their perceived benefits into PU. Similarly training is effective in converting PEOU into PU for agents who spend less than 2 hours a day online and who have low usage intensity.

IAM helps the agents who are above 40 years and who have low usage of the Internet in transforming their PB into PU. For

understanding the PU through PEOU, IAM is helpful to agents who spend less than 2 hours online for work and who have low usage intensity of the Internet for work. Thus we can conclude

that training and info access mandated seems to be effective for agents who have lesser computer self-efficacy.

Table.6. Mediation Analysis

Hyp.	Relationship	Direct Effect without M	Direct Effect with M	IV to M (Beta)	M to DV (Beta)	Sobel's test statistics
H8	PB-T-PU	0.6920	0.3400	0.6548	0.5415	4.85****
H9	PEOU-T-PU	0.8207	0.5601	0.7037	0.3670	3.77****
H10	PB-IAM-PU	0.6901	0.5285	0.4799	0.3462	3.29****
H11	PEOU-IAM-PU	0.8172	0.6983	0.5559	0.2072	2.17***

Notes: ***p < 0.01, ****p < 0.001

Table.7. Moderated Mediation for PB –Training - PU

	Age of Agents		Agents Education		Time Spent Online for work		Actual Usage Intensity	
	40 and below	Above 40	School/ HSc	UG and PG	Less than 2 hours	More than 2 hours	High UI	Low UI
Sample Size	165	241	100	306	244	162	249	157
Regression Weight	0.5409	0.7723	0.8218	0.5995	0.6918	0.5116	0.3427	0.8028
t-statistic	2.408**		1.43(NS)		1.72*		3.2****	

Table.8. Moderated Mediation PEOU-Training - PU

	Age of Agents		Agents Education		Time Spent Online for work		Actual Usage Intensity	
	40 and below	Above 40	School/ HSc	UG and PG	Less than 2 hours	More than 2 hours	High UI	Low UI
Sample Size	165	241	100	306	244	162	249	157
Regression Weight	0.8497	0.8021	0.8699	0.7731	0.8591	0.0344	0.6575	0.8591
t-statistic	0.814(NS)		0.921(NS)		3.042***		2.291***	

Table.9. Moderated Mediation PB-IAM-PU

	Age of Agents		Agents Education		Time Spent Online for work		Actual Usage Intensity	
	40 and below	Above 40	School/ HSc	UG and PG	Less than 2 hours	More than 2 hours	High UI	Low UI
Sample Size	165	241	100	306	244	162	249	157
Regression Weight	0.5349	0.7747	0.8219	0.5972	0.6842	0.5103	0.3429	0.8037
t-statistic	2.33***		1.409(NS)		1.509 NS)		3.689***	

Table.10. Moderated Mediation PEOU-IAM-PU

	Age of Agents		Agents Education		Time Spent Online for work		Actual Usage Intensity	
	40 and below	Above 40	School/ HSc	UG and PG	Less than 2 hours	More than 2 hours	High UI	Low UI
Sample Size	165	241	100	306	244	162	249	157
Regression Weight	0.8430	0.7945	0.8568	0.7764	0.8407	0.6122	0.6650	0.8482
t-statistic	0.772(NS)		0.758(NS)		2.614***		1.775*	

*p<0.1 **p < 0.05, ***p < 0.01, ****p < 0.001

6. CONCLUSION

The study on agents' adoption of the online channel reveals that the motivating role of the company in providing training for technology and the coercive role namely information access mandated by the insurer are highly inter-related and both play a decisive role in translating PB and PEOU into PU. Insurance companies can tailor the training programs differently based on age of agents and their efficacy with the usage of computers. Agents' response to training and info access mandated are different based on age, usage intensity and time spent online for work through the moderated mediation analysis. Effectiveness of training for technology usage can also enhance compliance of agents with the mandatory information access prescribed by the companies through the agents' portal. SQ and IQ are important as they have a strong impact on PEOU and PB respectively which in turn affect the PU. Thus the insurance company should concentrate on the SQ and IQ which are within their control. When the information quality on insurance companies' websites is maintained, the agents understand the benefits of using the online channel.

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