Analyzing Relationship between Innovation Strategies and Performance of Newspaper Firms in North and Central India

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Globally, very distinct circumstances are faced by newspaper firms in different countries. While newspaper firms in developed countries are facing the downtrend, there is a sustained robust growth seen in India. This study seeks to determine if a relationship exists between Indian newspaper firms healthy performance vis-à-vis various innovation strategies employed, as innovation strategies are supposed to be a positive influence in today's economy. The innovation strategies analyzed here are product innovation, marketing innovation, and societal marketing innovation. The firm's performance is measured by market and financial performance. The study outcome identifies the positive relationship between various innovation strategies and newspaper firm's market and financial performance. Additionally, the best regression model is also given for the association between innovation strategies and firm's performance. The conclusions of this study may be significant for the survival of the newsprint media market when a global slowdown is happening in newspaper firms of developed countries.

Keywords: Financial performance, marketing innovation, market performance, newspaper firms, product innovation, societal marketing

Every day, more than half of the grown-up population globally (i.e., about 2.7 billion adults) read a daily newspaper. The newspaper industry generates more than $ 153 billion of revenue globally from content sales, advertising revenues, and increasingly supplementary form of diversified revenue streams (WAN IFRA, 2017). At present, the global newsprint media industry is confronted with many challenges posed by the socio-economic scenario, wider consumers' choice, changing preferences, as well as the advent of electronic media (cable TV news) and internet news websites. In developed economies, print newspapers are losing their importance as the primary source of news, and their declining revenues are causing numerous layoffs and difficulties for newspaper firms to stay competitive. To compensate for this revenue loss, the global newspaper industry is moving towards product innovation by digitization, and the response is also good among the end users, as digital advertising grew by 5 percent from 2015 to 2016. However, print advertising revenue has declined by 8 percent worldwide over the previous period and down by 26.8 percent over the past five years. Total revenues of global newspapers (including print and digital) are down 2.1 percent in 2016 from a year earlier and are depressed 7.8 percent over the last five years (overall revenue decreased from USD 160 billion in 2014 to USD 153 billion in 2016) (WAN IFRA, 2017).

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Despite global downswing, the newspaper industry in India has been successful and maintained its advancement with increased circulation and readership. With more than 337 million copies sold every day, India is the largest newspaper market in the world (WAN IFRA, 2017). This is almost twice the circulation in China and about eight times more than in the USA. There is 71.51% increase in newspaper circulation numbers for India (highest for any country) from 2012 to 2016, while in the same period; USA newsprint media market reported a negative growth of 10.70 percent. With the exception of few countries; Portugal (in Europe), India, China, Indonesia, Malaysia, Thailand (all in Asia) and Chile and Mexico (in South America), most countries show a negative growth in circulation number, during the period of 2012 to 2016 (WAN IFRA, 2017).

A note of caution though; for the first time in Indian readership survey (IRS-2017 MRUC, 2018), '*No English language daily featured among India's ten most read dailies.*' While a Hindi newspaper (Dainik Jagran) topped the IRS-2017 list with more than 70 million dailies circulation per day, the top English newspaper (The Times of India) claimed a distant 11th rank, with 13 million copies sold per day. A total of 6 Hindi newspapers and four regional language newspapers have more daily circulation than most read English language newspaper. The English newspaper in India showed only a 10% increase in subscription during last four years (total circulation of 28 million in 2017), while the Hindi language dailies showed a huge 45% rise in its numbers (total circulation of 176 million in 2017). This should be worrying for newsprint media in India as an English newspaper in India are subscribed by the affluent society, and a smaller proportion of growth for English dailies may be telling a bitter truth; the educated and affluent Indians are switching to some other source of news media (TV cable news, news websites or social media). It may be suggesting a trend that as the smartphone and internet availability gains momentum, more and more people may switch towards another medium in place of newsprint media.

Nonetheless, the most important aspect of newsprint media in a democracy like India, where almost 39% of Indians read newspaper (IRS-2017 MRUC, 2018), is the association between the principled journalism and successful democracy, where free and fair journalism makes sure that its role of impartial arbiter would ward off the motivated onslaught of data mining companies and social media platforms during election times. A specific case study could be the 2016 elections in a mature democracy like the USA and the influence of hired data mining companies and compromised social media sites (Lewis & Hilder, 2018; Gopalkrishnan, 2018). If the Indian newsprint media goes into decline like in the developed world, it may face the heat of cost-cutting. This could lead to leaner journalism in the future – and perhaps less ethical and principled workforce, whose sole objective would be achieving the commercial targets. This could hurt the Indian democracy, with biased, motivated, compromised, confusing, and misleading narrative propagated in the general public. Saving the newsprint media in India is therefore very much significant for saving Indian democracy. Still, the pertinent question here arises what different philosophy does newsprint media in India is following so that it can increase circulation, unlike developed countries. The increase in the distribution of newspaper dailies in India can be attributed to numerous facts, few of which are given below.

(i) The faster rise in the overall population of India vis-à-vis developed nations, which is creating an ever-growing market for every successful business commodity, as Indian population grew at the rate of 1.26% during 2010-2015, while USA population increased at a rate of 0.75% in the same period (Population Growth Rate, 2018).

(ii) The increase in literacy level and better living standards in the general population of India, after globalization in 1990's era. A new study has found out that the Indian

middle class doubled in size over eight years, from 300 million in 2004 to 600 million in 2012 (Karnik, 2016). A developing nation with a healthy GDP growth like India is expected to show a strong rise in newspaper circulation, for example, China (28.21% rise in newspaper circulation during period of 2012-2016) (WAN IFRA, 2017).

(iii) A vibrant democracy like India also has a positive effect on newspaper circulation as people want to be more aware of the current political tendencies and government policies.

(iv) Another important reason for newsprint media healthy growth in India could be ascribed to still unsaturated newspaper circulation and internet reach. The newspaper circulation in the USA has almost complete reach since last many decades, but the same is not true for India. Furthermore, in India, the population of adult internet users is only 41% in 2016, while almost 92% of the adult population in the USA uses the internet. The higher internet reach provides the option of surfing the news websites and hence print news media is showing a decline in the USA, whereas most of the Indian populace is still dependent on print media for news (WAN IFRA, 2017).

(v) Newsprint media in India still has the advantages of ease of access, availability at home, competitive pricing, being part of daily routine, original reporting, professional editing and packaging, customized sections and pull outs over digital media.

(vi) Newsprint media has the power of written words over the cable TV news and digital news platforms. A recent survey by authors among middle-class, educated, adult Indians have shown that 55% respondents trust newsprint media, 29% trust cable TV news, 11% trust news websites and only 5% population trust social media sites for accurate and reliable news. Henceforth, the dynamics of fake news dissemination in online communities is a vastly debated contemporary topic in India and all over the world (Berduygina et al., 2019; Bharali & Goswami, 2018; Farooq, 2018; Shafi & Ravikumar, 2018).

(vii) An increase in Indian newspaper industry may also be attributed to the fact that print media in India has always been creative, knowledgeable helpful and always been appealing to the readers through a range of innovative marketing and selling tactics (Kukreti & Sharma, 2016). According to the world news media outlook 2017 report- innovation research group, the greatest risk to a newspaper company's future success is a reluctance to innovate, (WPT, 2017). This survey among newspaper firm's employees confirms the positive perception of innovation in the domain of the newspaper industry. Assessing the relationship of innovation strategies with the newsprint media firm's market and financial performance is the topic of the present study.

There is an adage that any economy will be dilapidated if it produces no managerial innovations. Management expert Peter Drucker (1985) has stated that 'if an established organization, which in this age necessitating innovation, is not able to innovate, it faces decline and extinction.' The corporate firms watch the changing taste and inclinations of the people closely to take benefit before a competitor and leverage it in the market as the source of competitive advantages to meet its objectives(Barney, 2000). Numerous economists and marketing researchers have tried to comprehend motivations behind innovation strategies (Aghion et al., 2005; Arrow, 1962; Gilbert, 2006; Nickell, 1996; Scherer, 1967; Schumpeter, 1942). Further, it is broadly agreed that market orientation and innovation strategies can lead to increased organizational performance (Narver & Slater, 1990; Jaworski & Kohli, 1993).

The role of innovation is more vital for a firm operating in an oligopolistic market, such as newsprint media market. Newspaper firms in India have adopted strong market orientation and innovation practices (Khanduri & Sharma, 2013). Nevertheless, despite the growing interest in innovation strategies, no systematic research to date has examined

its role and impact in the newspaper industry in India. This paper seeks to determine if a relationship exists between a firm's performance vis-à-vis innovation strategies developed by Indian newspaper firms. More specifically, the study proposes to test the relationship (if any) between marketing innovation strategies (product innovation, marketing innovation, and societal marketing), and market and financial performance (market share –advertising, market share– readers, customer retention, attracting new customers, building a positive, newspaper image, sales growth and profit). The Indian newsprint media sector, with 1,18,239 registered publications (17,573 in newspaper category) as on 31 March 2018 (RNI, 2019), is particularly worthy of study, as it has a large fiscal impact on the economy of India. But more important than the economic aspect, the newsprint media also has very significant socio-political aspects in setting the narratives and general public perception in India, which makes it a very important part of the fourth pillar of the Indian state.

Methodology

Sampling Adequacy and Questionnaire Design

The study is based on primary data that is collected from the newsprint media firm's senior-level marketing managers through questionnaires administered personally as well as electronically. The statistical analysis software program used in the present study is SPSS (IBM SPSS). The sample was randomly selected from the newspaper firms operating in the north and central India. We have collected the data using survey questionnaires. A total of 211 questionnaires were distributed, and 31 responses were received over six months. The basic constructs and measures are adopted from existing and well-established scales within the literature (see Table 4). Multiple scales were available, so we compared and evaluated them for deciding the most appropriate measurement for a construct, in the newsprint media field. A pilot survey was done with the help of an exhaustive questionnaire. It was conducted among nine non-sample key-informants, who had sufficient knowledge and experience in the newspaper media industry. The surveyed included marketing managers of newsprint media, marketing head of FM channel (owned by newspaper firm), senior newsprint media editors, and owner of key advertising firms associated with newspapers. The exercise was carried out to build a compact questionnaire and to validate the items used for each construct which would lessen the response bias and measurement slip-up in the sample (Kumar et al., 1993). We found a satisfactory response from the field and then restructured our questionnaires for each construct. After this, we conducted the actual survey by personal delivery and questionnaire posting by emails to marketing heads of various newsprint media firms in the north and central India, and their responses were acquired by personal interviews, telecalling and electronic mails.

The questionnaire is divided into three sections, A, B, and C. The first Section-A contains questions on the newspaper firm's basic information. The second Section-B, contains questions on the objectives of the research study. It contains questions on product innovation, marketing innovations, and societal marketing practices strategy parameters. Section-C contains questions on the performance of newspaper firms (dependent variable) in two different segments; market performance and financial performance. The financial performance includes two items regarding sales growth (circulation) and profit (net income). The market performance is evaluated by questions on market share – reader, market share – advertising, customer retention, attracting new customers, and building a positive newspaper image.

Product innovation: Product innovation constitutes of the introduction of a good or facility that is entirely novel or considerably enhanced concerning its features or envisioned uses; including noteworthy enhancements in technical and procedural specifications, integrated software, modules and constituents, customer ease of handling or other functional characteristics (OECD OSLO Manual, 2005). In the newspaper industry, various product innovations such as the use of 3D technology, product bands attached to the newspaper, half-tabloid publications for commuters, perfumed newspaper, etc. are regularly adopted. Our questionnaire responses were measured on a 5-point Likert-scale. The original questionnaire consisted of 6 questions which were reduced to final four questions after Cronbach's alpha test (alpha = 0.723) to increase the reliability, as shown in Table 1.

Table 1. Product innovations construct

Our newspaper firm introduces several significant changes to the design and presentation of the newspaper every year.
Our newspaper firm launches numbers of new newspaper supplements every year
With NPD (new product development), our newspaper firm explores/enters new markets segments.
Our newspaper firm has employed a significant number of people dealing with innovations in newspaper presentation.

Marketing innovation: Marketing innovation constitutes of employment of a novel promotion method involving noteworthy alterations in merchandise design or packaging, product advertising, product valuing, and placement of produce. Market innovation plays a crucial role in achieving market requirements and positively responding to market prospects (OECD OSLO Manual, 2005). The newsprint media employs various marketing innovations like offering discounts, giving vouchers, printing large display ads inside newspapers, setting up display booths and hoardings at high-traffic areas, incentives on subscriptions, organizing events, contests or cultural nights, etc. Our questionnaire responses were measured on a 5-point Likert-scale. The original questionnaire consisted of 4 questions which were reduced to the final three questions after Cronbach's alpha test (alpha = 0.812) to increase the reliability, as shown in Table 2.

Table 2. Marketing innovations construct

Our newspaper firm employs a significant number of people to cater to the latent needs of the current customers and potential customers
Our newspaper firm employs innovative methods to attract new and, potential customers /readers
Our newspaper firm stands first in the market to introduce new promotion and advertising tools.

Societal marketing innovations: The societal marketing idea comprises of firm's task to decide the requirements, desires, and interests of an objective market and to supply the anticipated goods more meritoriously and professionally than other players in a way that conserves or improves the customer's and the society's welfare (OECD OSLO Manual, 2005). The societal marketing notion hosts business's community accountability into marketing practices (Kotler & Keller, 2012). The societal marketing concept is very well adopted by newspaper firms in India. Various campaigns are conducted by newspaper firms all-around the year, on the concepts of green initiatives, cleanliness, women education, eye-donation, saving rivers, student achievers, promoting art and artists, save electricity, save water, No TV day, against air pollution, against noise pollution, campaign

against female foeticide, etc. to name a few. Our questionnaire responses were measured on a 5-point Likert-scale. The original questionnaire consisted of five questions which were reduced to the final four questions after Cronbach's Alpha test (α = 0.859) to increase the reliability, as shown in Table 3.

Table 3. Societal marketing innovations construct

Our newspaper firm actively conducts social awareness campaigns every six months
Our firm spends considerable money on public relations
Our firm donates money to charity
Our firm actively invests resources and money in activities outside its business which aim to benefit the community

The majority of newspapers are privately held companies and do not report their financial statements. Thus, self-reporting is the only way to get hold of financial performance. Nevertheless, subjective measures like self-reporting and judgemental assessment are demonstrated to be consistent with objective measures of the market and financial performances (Dess & Robinson, 1984; Jaworski & Kohli, 1993; Piacentini et al., 2000; Weezel, 2009). A 7-point Likert-scale is used for each response in a firm's performance study. Considering the two different types of performance (market and financial) allow for a more comprehensive analysis of the results (Dess & Robinson, 1984).

The operating period considered in this study of the newspaper firms is three years (i.e., 2014 - 2017), as economic cycles have an impact on the performance of media firms (Venkatraman & Ramanujam, 1986). Table 4 summarizes the number of a distinct group of items used in the study, the actual number of question items in the various constructs, literature source of constructs and the Likert's scale type used in the questionnaire design.

Table 4. Measurement items and sources

Group of items	Items	Source	Scale type
Innovation Strategies	*11*	Dess & Robinson ,1984; Fazhoglu et al., 2016; Fiol, 1991; Jaworski & Kohli, 1993; Kaiser, 1974; Karlsson&Tavassoli, 2015; Kocak et al., 2017; Narver & Slater, 1990; Ramanujam & Venkatraman, 1984; Saif, 2015; Tuan et al, 2016; Wu, 2003;	1 = strongly disagree, 5 = strongly agree
Product Innovation	4		
Marketing Innovation	4		
Societal Marketing	4		
Financial-based performance measures	2		1=much worse 7=1 much better
Market-based performance measures	5		1 =much worse 7=much better

Analysis

After Cronbach's Alpha test, we conducted the principal components analysis (PCA) on various constructs to reduce the dimension and get the principal components (or factors) representing the construct (Picard, 2002). For product innovation construct, one factor is extracted, so we retained the name for the factor. Although the Kaiser-Meyer-Olkin (KMO) test value of 0.575 is miserable for sampling adequacy, Bartlett's Test of Sphericity (BTS) gave a significance value of 0.000 (less than 0.05). Kaiser criterion is fulfilled by just 1 factor with an eigen-value of 2.263, and the total variance explained by the extracted factor is 56.584% (Cemy & Kaiser, 1977; Costello & Osbome, 2005). For marketing innovation construct, the Kaiser criterion is fulfilled by just 1 factor with an Eigen-value of 2.213 and

the total variance explained by the extracted factor is 73.756. The KMO test value of 0.591 is miserable for sampling adequacy, but the BTS gave a significance value of 0.000. For societal marketing innovation construct, KMO test value of 0.812 is meritorious for sampling adequacy, and the BTS gave a significance value of 0.000. Kaiser criterion is fulfilled by 1 factor with an Eigen-value of 2.859, and the total variance explained by the extracted factor is 71.472 percent.

For market performance construct, KMO test value of 0.689 is mediocre for sampling adequacy, and the BTS gave a significance value of 0.000. Kaiser criterion is fulfilled by 1 factor with Eigen-value of 3.556, and the total variance explained by the extracted factor is 71.126%. For financial performance construct, KMO test value of 0.500 is miserable for sampling adequacy, but the BTS gave a significance value of 0.000. Kaiser criterion is fulfilled by just 1 factor with Eigen-value of 1.788, and the total variance explained by the extracted factor is 89.421%.

Hypotheses

Although there are various reported results available on innovation strategies positive influence on firm's performance in various industries (Table 4), however the findings from existing studies differ in many respects which suggests that there is the need for further research. Further, there is no literature available concerning the effect of innovation strategies on firms' performance for the newspaper industry in India, which necessitates a rigorous analysis for the same and is motivation for present work.

A cross-sectional multiple regression study is performed on the dependent variables (MP= Market performance, and FP= Financial performance), where the independent variables are various innovation strategies undertaken by newspaper firms (PI= Product Innovation, Market Innovation= MI, and Societal innovation=SI).

Four-variable multiple regression model is specified for both the dependent variables in this study. Under the purpose of this study, to find out the relationship between various innovations strategies on firms' performance, we have stated two hypotheses. The first regression null hypothesis articulates that there is no statistically significant relationship between the various innovation strategy acquired by the newspaper firms and newspaper firms' market performance.

Null Hypothesis **$H0_a$**: Innovation strategies (PI= Product Innovation, Market Innovation= MI, and societal innovation= SI) are not related to firms' market performance.

Where $MP = \beta_0 + \beta_1 \times PI + \beta_2 \times MI + \beta_3 \times SI + \varepsilon_1$ (1)

Such that $H0_a : \beta_1 = \beta_2 = \beta_3 = 0$.

Alternate Hypothesis $H1_a$: Innovation strategies are associated with firm's market performance.

$H1_a: \beta_1 \neq 0$ or $\beta_2 \neq 0$ or $\beta_3 \neq 0$.

The second null hypothesis states there is no statistically significant relationship between the various innovation strategy acquired by the newspaper firms and newspaper firms' financial performance.

Null hypothesis **$H0_b$**: Innovation strategies (PI= Product Innovation, Market Innovation= MI, and Societal innovation = SI) are not related to firms' financial performance.

Where $FP = \beta'_0 + \beta'_1 \times PI + \beta'_2 \times MI + \beta'_3 \times SI + \varepsilon_2$ (2)

Such that $H0_b: \beta'_1 = \beta'_2 = \beta'_3 = 0$

Alternate hypothesis **H1$_b$**: Innovation strategies are associated with firm's financial performance.

H1$_b$: $\beta'_1 \neq 0$ or $\beta'_2 \neq 0$ or $\beta'_3 \neq 0$

Results

We have regressed the dependent variable of market performance (of newspaper firms in our response sample) on three independent variables constituting innovation strategies (product innovation, marketing innovation, and societal marketing). To check the issue of multicollinearity, we have calculated the variance inflation factor (VIF), as given in Table 5. The VIF values calculated are less than 3, and the tolerance value is greater than 0.3 for all three independent variables used in the model. So we can safely assume that our model does not suffer from the issue of multicollinearity.

Table 5. Summarized results for multi-collinearity analysis

Test for Multicollinearity: Coefficients

Model	Collinearity statistics	
	Tolerance	Variance inflation factor (VIF)
Product innovation	.752	1.330
Marketing innovation	.374	2.674
Societal innovation	.439	2.280
Dependent Variable: Market Performance		

Another important issue that could come up with cross-sectional data used in this study is of heteroscedasticity. Table 6 gives the results from heteroscedasticity analysis using Breusch-Pagan and Koenker test statistics. The test uses the null hypothesis of "no heteroscedasticity in errors." Therefore, if the significance value is less than 0.05, we have sufficient evidence to reject the null hypothesis. In case of *financial performance*, the Koenker and Breusch-Pagan tests significance value are more than 0.05, so we do not have sufficient evidence to reject the null hypothesis and can safely assume that the present model does not have heteroscedasticity. However, a sign-value of 0.039 for Koenker test (for small sample size) in case of *market performance* shows the heteroscedasticity, even though the Breush-Pagan Sig-value is 0.232.

Table 6. Heteroscedasticity analysis using Breusch-Pagan and Koenker test statistics for innovation and performance variables

	Heteroscedasticity analysis for market performance	
	Breush-Pagan and Koenker test statistics and significance-value	
	Lagrange multiplier	Sig
BP	4.285	0.232
Koenker	8.369	0.039
	Heteroscedasticity analysis for financial performance	
	Breush-Pagan and Koenker test statistics and significance-value	
	Lagrange multiplier	Sig
BP	3.643	0.303
Koenker	4.915	0.178

Multiple regression analysis is then performed in SPSS and the vital test statistics for market performance regression is summarized in table 7 for null hypothesis $H0_a$. The F statistics of 11.793 (p-value = 0.000) indicates that the regression, as a whole, is statistically significant. The coefficient of determination (adjusted R^2) suggests that about 51.9% of the variation in market performance is explained by the three explanatory variables, combined. The prediction model is specified as follows:

$$MP = 0.00 + (0.540 \times PI) + (0.288 \times MI) + (0.123\ SI) \qquad (3)$$

Where $\beta_{20} = 0.00$, $\beta_1 = 0.540$, $\beta_2 = 0.288$ and $\beta_3 = 0.123$.

Table 7. Summary of regression for innovation strategies and market performance.

Regression Results for market performance			
Adjusted R-squared		f-value	Sig.
0.519		11.793	0.000
	Standardized Coefficient (Beta)	t-Stat	Sig.
Intercept		0.000	1.000
PI	.540	3.698	0.001
MI	.288	1.390	0.176
SI	.123	0.643	0.526

As the standardized beta coefficients for the three independent variables are non-zero and the *p*-value = 0.000 for f statistics, we have enough evidence to reject the null hypothesis $H0_a$ and may conclude that there is a *statistically significant relationship* between innovation strategies and newspaper firms market performance. However, the test of significance for independent variables (measured by the t statistics) shows that only product innovation (*PI*) is statistically significant, while marketing innovation (*MI*) and societal marketing innovations (*SI*) are not significant, for market performance regression. It may be pertinent to mention that the correlation coefficient between *MI* and *SI* is found to be quite high (0.7099). However, we cannot infer the lack of statistical significance for *MI* and *SI* to multicollinearity, as multicollinearity does not seem to exist in our analysis.

In other words, only product innovation contributes meaningful information in the prediction of a newspaper firm's market performance. The sign of the standardized beta coefficient for all three independent variables is consistent with prior expectation. Taking a standardized beta coefficient for *PI* as an example, it suggests that with every increase of one standard deviation in product innovation, the newspaper firm's market performance rises by about 0.54standard deviations.

Similarly, multiple regression analysis for null hypothesis $H0_b$ and the vital test statistics is also summarized in Table 8. The f statistics of 12.709 (*p*-value = 0.000) indicates that the regression, as a whole, is statistically significant. The coefficient of determination (adjusted R^2) suggests that about 53.9% of the variation in financial performance is explained by the three explanatory variables (*PI*, *MI* and *SI*), combined. The prediction model is specified as follows:

$$FP = 0.00 + (0.614 \times PI) + (0.135 \times MI) + (0.249 \times SI) \qquad (4)$$

Where $\beta'_{20} = 0.00$, $\beta'_{21} = 0.614$, $\beta'_{22} = 0.135$ and $\beta'_{23} = 0.249$

Table 8. Summary of regression for innovation strategies and financial performance

Regression results for financial performance			
Adjusted R^2	*f*-value	Sig.	
0.539	12.709	0.000	
	Standardized coefficient (Beta)	t-Stat	Sig.
Intercept		0.000	1.000
PI	0.614	4.294	0.000
MI	0.135	0.667	0.510
SMI	0.249	1.331	0.194

As the standardized beta coefficients for the three independent variables are non-zero, and the p-value = 0.000 for f statistics, we have enough evidence to reject the null hypothesis **H0$_b$** and conclude that there is a statistically significant relationship between innovation strategies and newspaper firms' financial performance. The test of significance for independent variables (measured by the 't' statistics) show that only product innovation (*PI*) variable is statistically significant, while marketing innovation (*MI*) and societal marketing innovations (*SI*) variables are not statistically significant, for financial performance regression. In other words, only product innovation contributes meaningful information in the prediction of a newspaper firm's financial performance. The sign of the standardized beta coefficient for all three independent variables is consistent with prior expectation. Taking a standardized beta coefficient for *PI* as an example, it suggests that with every increase of one standard deviation in product innovation, the newspaper firm's financial performance rises by about 0.614 standard deviations.

A further insight is attained by implementing the forward stepwise model selection method, where we have used the criteria of highest adjusted R^2 values, for entry/removal of variables in the model. A significance level of .05 is used and results for the best model according to adjusted R^2 values can be summarized as:

For Market Performance Model: The f statistics of 17.858 (p-value = 0.000) indicates that the regression, as a whole, is statistically significant. The highest adjusted R^2 value of 0.529 (compared to adjusted R^2= 0.519 when all 3 independent variables were included) is obtained for the regression model for *MP*. Here, *PI* is the dominant factor (with beta coefficient= 0.508, Sig-value = 0.001, importance= 0.632) and *MI* is the other independent variable sustained in the model according to 95% confidence level criterion (with beta coefficient = 0.387, significance-value= 0.008, importance= 0.368). The Koenker test statistic value is 6.983, and the sign-value is 0.030. As the significance-value for Koenker test is less than 0.05; we reject the null hypothesis of homoscedasticity. The best model for market performance is summarized as:

$$MP = (0.508 \times PI) + (0.387 \times MI) \tag{5}$$

For Financial Performance Model: The f statistics of 19.222 (p-value= 0.000) indicates that the regression, as a whole, is statistically significant. The highest adjusted R^2 value of 0.548 (compared to adjusted R^2= 0.539 when all three independent variables were included) is obtained for the regression model for *FP*. Here, *PI* is the dominant factor (with beta coefficient= 0.661, sig-value= 0.000, importance= 0.788) and *SI* is the other independent variable sustained in the model according to 95% confidence level criterion (with beta coefficient= 0.343, sig-value= 0.009, importance= 0.212). The Koenker test statistic value is 4.544, and the sign-value is 0.103. As the Sig. value for Koenker test is more than 0.05; there is no evidence of heteroscedasticity. The best model for financial performance is summarized as:

$$FP = (0.661 \times n \ PI) + (0.343 \times SI) \tag{6}$$

Discussion & Conclusion

The present study examined if any relationship exists between innovation strategies and newspaper firm's market and financial performance (Hypotheses **H0$_a$** and **H0$_b$**). The literature review in general has shown the significance of innovation in product strategy for firms other than newsprint media (Amabile et al., 1996; Bujis, 2013; Cronholm et al., 2017; Gumusluoglu et al., 2009; Hamel, 2006; Hamel, 2007; Jung et al., 2003; West et al., 1996). It has also been reported that a greater level of innovation results in higher market and financial performance for firms operating in different domains (Banbury & Mitchell,

1995; Birkinshaw et al., 2017; Caves & Ghemawat, 1992; Hansen et al., 2007; Low, 2006; Yamin et al., 1999). Further, Jaworski and Kohli (1993) have found the self-assessment results as a better predictor of firms' performance as they overcome the effect of time-lag in the estimation of firm performance due to orientation and innovation activities. The constructs for Organization's responsiveness (response design and response implementation) in their work is identical to the construct for innovation strategies used in the present work. So, the positive association between market orientation and firms' performance found in Jaworski and Kohli (1993)results are similar to the positive association of innovation strategies and firm performance found in the present work for self-assessed firm performance response. Altogether, the three innovation initiatives (product innovation, marketing innovation, and societal marketing innovations) account for about 50-55% of variations in the newspaper firms' market and financial performance scores.

This could be a positive message for the newsprint media firms globally to invest more in innovation strategies for overcoming the downtrend and survive in the turbulent times. The results suggest that newspaper firm's advertisement revenues, circulation numbers, loyalty of customers, increase in circulation, and the trust of consumers' surges more, if the product supplied is user friendly, efficient and best among the rivals, and there are enough efforts in terms of marketing innovations to make it more attractive to consumers. Further, the results hint at an increase in sales and profit of newspaper firm if it invests more in making its product best among rivals, user-friendly and efficient, while the newspaper firm also takes more interest in its social responsibilities and charity works. The results should be understood in the backdrop of present market performance model having slight heteroscedasticity while financial performance model is devoid of heteroscedasticity (Best Linear Unbiased Estimator, BLUE). Due to the reasonably high coefficients of determination in the regression, it may be possible to predict the trend in newspaper firms market and financial performance using the parameters estimates of present models, in the north and central India.

Another significant conclusion from the present study is quite intuitive and relates the market performance and financial performance. A correlation coefficient of 0.855 between market performance and financial performance factor suggests that sustained customers' loyalty, attracting fresh customers and constructing a progressive newspaper image leads to an eventual increase in the circulation statistics and profit margins.

In conclusion, innovation strategies could be one of the important factors which can facilitate the newsprint media companies to be prominent of its rivals and also survive the challenges from news websites, social media and cable TV news. Comprehensive research including all the factors of marketing initiatives and their interaction with environmental influence on firm's performance would be an improvement over the present study and very useful for marketing managers working in the fields of newsprint media.

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