

## RESEARCH ARTICLE

# What's good for business growth: Implications of innovativeness and price sensitivity for firms in developing countries

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## Abstract

There are selective innovative features and reasons for innovation that drive firm growth. Various reasons are analyzed which are behind the innovation decisions undertaken by the firms and innovative features' effects on revenue growth in Bangladeshi firms to better understand the preferred determinants in certain geographic areas. This research investigates how the features of firm-level innovation and the reasons to launch it can affect the revenue growth of firms in developing countries. The findings suggest innovative features that are less expensive to offer lead to higher revenue growth and offer strategic implications for firms implementing innovations in developing countries.

## 1 | INTRODUCTION

Since the early 1800s, innovation has driven economic growth (Ahlstrom, 2010), and firm-level innovation fosters national economic progress through business growth (Landes, Mokyr, & Baumol, 2010), which, in developed countries, creates jobs, increases revenue, and improves consumers' lives. For example, because of firm-level innovation, a worker can now produce a product in 7 min that would have taken an hour or more during the 1890s (De Long, 2000).

Firm-level innovation not only contributes to revenue growth but also leads to a firm's superior performance (Pfeffer, 1998). This increased productivity also translates into increases in consumers' standards of living in developing countries. For example, Abbot Labs introduced several firm-level innovations that led to the company's rapid growth and ability to develop a lower-end alternative of some expensive diagnostics and nutritional products that opened the market to a new group of patients (Christensen, Grossman, & Hwang, 2008).

Literature on innovation in developed countries abounds (such as Plouffe, Hulland, & Vandenbosch, 2001; Shih & Venkatesh, 2004), but there are few reports on firm-level innovation in developing countries (Jha & Bose, 2016b) probably because researchers have historically considered those markets less important, even though they now represent major growth opportunities in the world economy. Firms exploring

opportunities to introduce firm-level innovations in developing countries must understand the constraints those countries face, including unreliable electricity, infrastructure challenges, political instability, and economic restrictions, such as low GDP and high inflation.

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In addition, mainstream global product life-cycle theory suggests that when an innovation has reached its maturity and is obsolete in developed countries, firms can start launching that technology in developing countries. However, this is no longer an effective solution. Nowadays, firms in developing countries cannot introduce as innovations outdated and obsolete products because firms and consumers in developing countries have access to rapid information flows through telecommunications, the Internet, and overseas travel, making them less likely to accept these. Even without a proper technological infrastructure, the developing market facilitates leapfrogging because firms can directly implement state-of-the-art technology instead of going through technological generations. For example, instead of telecommunication firms installing a traditional cable-based network in developing countries, they can directly implement radio- or cellular-

based technologies because those technologies offer a better way to achieve market coverage (Arnold & Quelch, 1998), and such firm-level innovation can lead to revenue and business growth in developing countries.

This paper investigates the innovative features that significantly affect firms' revenue growth, which can lead to higher productivity and economic growth in developing countries.

## 2 | LITERATURE REVIEW

Growth is essential for firms and the economy. Even a business that experiences small growth over a long period can increase its industrial capacity and a population's standard of living. Helpman (2010) found implementing firm-level innovation can foster the growth of businesses, which leads to economic growth. However, implementing firm-level innovation depends on decisions made by the firm's management (King et al., 1994), who need to differentiate their product by introducing innovative features that will ensure the firm's growth in a highly competitive industry.

### 2.1 | Innovative features

To avoid its wide and unclear use, as is the case with similar terms like technologies, innovations, and new features (Maniak, Midler, Beaume, & Pechmann, 2014), the term innovative feature should be defined. To do this, we can look at previous research in the area of innovative features and find, for example, management-related research often uses the term technology to designate the improvement of a product's performance, such as in changing the technology of batteries to improve an existing attribute of a product such as battery life (Krishnan & Bhattacharya, 2002). In contrast, marketing-related research frequently looks at innovative features from the customer's view and only considers the extent to which attributes of a product are perceived as new to consumers (Maniak et al., 2014). Management-related product innovation research considers an innovative feature as an important element of product innovativeness that introduces an advantage to the product (Calantone et al., 2006; Jha & Bose, 2016a).

According to Thölke, Hultinka, & Robbenb, 2001, an innovative feature is an "identifiable aspect of the total offering that a critical reference group perceives and evaluates as an 'extra' to a known standard among comparable products" (p. 4). In addition, the feature can be innovative in any of three dimensions. For example, the feature can represent (a) a performance improvement; (b) price reduction for given attributes with similar performance; or (c) a new, original attribute (Maniak et al., 2014).

The Oslo Manual (OECD, 1997) proposed a company can introduce at least five types of innovative features in its firm-level innovation: (a) completely new functions, (b) cheaper production, (c) improved product quality or services, (d) new types of inputs, and (e) new technology or industrial design (World Bank Group, 2012). In this article, we are going to look at these innovative features and the reasons companies introduce them at the firm level.

### 2.2 | Reasons for introducing innovations

Firms introduce innovations for many reasons. They can help a firm remain profitable, which fosters the economic growth of many countries through business growth (Helpman, 2010, Landes et al., 2010), and companies often introduce innovations because of increased competition from new technologies and rapidly changing consumer demands. Edgett, Shipley, & Forbes, 1992 identified other reasons, including a firm's desire to grow in new segments of existing markets, to compete with other firms in the market, to complement existing products, to advance company brand image, to diversify its product range, and to fully use company resources.

The Oslo Manual (OECD, 1997) found management might introduce innovations at the firm level (a) to replace an offered product or service, (b) to extend the range of products or service offered, (c) to target a new market or increase market share, (d) to decrease the cost of production or offering the service, (e) to offer products or services already offered by competitors, (f) to comply with regulations or standards, and (g) to deal with a decreased demand for other products or services (World Bank Group, 2012).

### 2.3 | Innovations at the firm level in developing countries

Companies introducing innovations in developing countries often face existing infrastructure, political, economic, and societal constraints, including unreliable electricity, political instability, high inflation, low GDP, or a low literacy rate (Eifert, Gelb, & Ramachandran, 2005; Johnson, Ostry, & Subramanian, 2007; Nwanko, 2000; Rogers, 2003). Therefore, innovative features and the reasons to launch innovation in a developing country can vary significantly according to the developed country's context. Because most developing countries' consumers belong to the low-income segment, firms in those countries often focus on introducing innovative features that will make existing products cheaper to produce. For example, many technologies and healthcare products are out of reach for consumers in developing countries; however, firms have seized opportunities to serve more consumers in developing countries with recent innovations such as inexpensive computers and healthcare products. One such firm is the Aravind Eye Care System in India that made critical treatments, such as low-cost cataract surgery, more widely available (Prahalad, 2006).

Many developing countries' governments continuously introduce new regulatory requirements to improve basic infrastructures (Arnold & Quelch, 1998), which are often lacking, and to comply with these regulations, firms bring in their innovations. Moreover, to satisfy the needs of consumers in developing countries, many firms are replacing old products with new products to stay viable in a highly competitive market (Chen & Tsou, 2012; Pantano & Viassone, 2014).

## 3 | HYPOTHESES DEVELOPMENT

To develop their businesses, firms introduce various types of innovative features including (a) completely new functions, (b) more cheaply produced products or offered services, (c) improved product quality or services, (d) new types of inputs, and (e) new technology or industrial

designs. Although many features can be included within an innovation at the firm level, only one feature—innovation that is cheaper to produce or offer—can significantly influence the revenue growth of firms in the context of developing countries.

### 3.1 | Innovations that are cheaper to produce or offer at the firm level

Consumers in developing countries usually belong to lower income segments and thus have less money to buy products or services. This situation requires businesses from developing countries to address consumers' price-sensitive behavior (Tian, 2016), and one way of reaching more consumers to do that is to introduce innovations that are cheaper to produce or offer at the firm level (Johnson, Christensen, & Kagermann, 2008; Prahalad, 2006). This cheaper innovation at the firm level can increase company revenues by enabling companies to access more consumers in developing countries. This view leads to the proposed Hypothesis 1:

H1. Revenue growth of firms in developing countries is higher when the innovations at firm level are cheaper to produce or offer.

As it was mentioned in the literature that firm can introduce innovation at the firm level for different reasons. Among the reasons already offered for introducing innovation at the firm level, only two reasons can significantly influence the revenue growth of firms established in developing countries: (a) to replace older products or services and (b) to comply with regulatory requirements.

### 3.2 | Replacing older products or services

When firms introduce a new product to replace an older product, they satisfy customers' changing needs, reach more consumers, and thus can increase their sales (Dodgson, Gann, & Salter, 2006). Ahlstrom (2010) agreed that introducing innovation that replaces older products or services can increase the sales of businesses in developing countries. These arguments lead to Hypothesis 2:

H2. Revenue growth of firms in developing countries is significantly and positively affected by a firm's innovative intention to replace its older products or services.

### 3.3 | Complying with regulatory requirements

In developing countries, businesses may face poorly developed distribution systems, little or no market data, or poor communication channels. To address these issues, governments in developing countries introduce regulatory requirements to improve their basic infrastructure, which may in turn help businesses to increase their revenues. Therefore, we can hypothesize that firms that comply with governmental regulatory requirements may have better chances to increase their revenue growth. This leads to Hypothesis 3:

H3. Revenue growth of firms in developing countries is significantly and positively affected by a firm's innovative intention to comply with governmental regulatory requirements.

In developing countries, businesses may face poorly developed distribution systems, little or no market data, or poor communication channels. To address these issues, governments in developing countries introduce regulatory requirements to improve their basic infrastructure, which may in turn help businesses to increase their revenues

### 3.4 | More diversified owners

Besides specific and significant firm-level features and reasons, many diversified owners in a firm can bring successful innovation at the firm level, which can help firms to achieve higher revenues. de Mel, McKenzie, & Woodruff, 2009 argued that the role of owners is crucial for firms in developing countries to introduce innovative products that can significantly contribute to firms' revenues. Cohen and Klepper (1996) also contended that large firms tend to bring more innovations to developing countries because they usually have more diversified owners. Therefore, we propose Hypothesis 4:

H4. Firms generating innovative products and services that have more diversified ownerships realize much higher revenue growth.

## 4 | DATA AND VARIABLES

The data analyzed in this study is from the World Bank Group's Enterprise Survey Dataset (Enterprise Survey, 2013), which was the latest data available for the area as of January 2018. The dataset has been used by numerous researchers in policy and business strategy domains to understand the micro and macro growth of firms and nations (Ayyagari, Beck, & Demircuc-Kunt, 2007; Eifert et al., 2005). The survey was based on principles of the Oslo Manual (OECD, 1997) for measuring innovation. The World Bank collected the data from a wide array of firms to cover as much depth about different sectors of a firm as possible.

For the dataset used in our study, we sampled 875 firms in Bangladesh. The survey was voluntary; therefore, many firms did not report innovation details and only reported other statistics about the firm; if this was the case, these firms were eliminated from the study. We finally used data from about 328 firms of various sizes and spread across sectors in Bangladesh. Table 1 shows the sector and size distribution of the firms used in the study.

For our dependent variable, we used revenue growth from 2009 to 2012. The 3-year period used conforms with past research that recommends a period of longer than a year to evaluate the implications of innovations (Roper, Du, & Love., 2008). The variable has been represented in percent change from 2009 to 2012.

**TABLE 1** Distribution of firms by their sectors and size (number of employees)

Industry	Firm size (by number of employees)			
	Micro < 5	Small ≥5 and ≤19	Medium ≥20 and ≤99	Large ≥100
Food		22.90%	38.60%	38.60%
Textiles		19.10%	45.70%	35.20%
Garments		13.50%	10.40%	76.00%
Leather		28.10%	37.70%	34.20%
Wood		68.40%	26.30%	5.30%
Paper		27.60%	55.20%	17.20%
Publishing, printing, and recorded media		61.40%	33.30%	5.30%
Chemicals		19.30%	40.30%	40.30%
Plastics & rubber		39.00%	51.20%	9.80%
Nonmetallic mineral products		27.30%	63.60%	9.10%
Basic metals		42.50%	40.00%	17.50%
Fabricated metal products		38.70%	41.90%	19.40%
Machinery and equipment (29 & 30)		44.40%	25.90%	29.60%
Electronics (31 & 32)		7.10%	21.40%	71.40%
Transport machines (34 & 35)		65.20%	21.70%	13.00%
Transport machines (34 & 35)		20.00%	50.00%	30.00%
Furniture		42.00%	43.20%	14.80%
Construction section F: F			50.00%	50.00%
Services of motor vehicles		76.90%	19.20%	3.80%
Wholesale		64.00%	20.00%	16.00%
Retail	0.80%	59.80%	35.20%	4.10%
Hotel and restaurants: Section H H		80.00%	12.50%	7.50%
Transport section I: (60–64) I			33.30%	66.70%
Transport section I: (60–64) I			50.00%	50.00%
IT		66.70%	33.30%	
Total	0.10%	35.00%	34.30%	30.60%

Our explanatory independent variables are the innovative features and reasons for the innovation decisions undertaken by the firms. The first, innovative features, represents the innovation content of the new product introduced by the firm. The World Bank Group's (2012) Enterprise survey drew on the guidelines laid out in the Oslo Manual (OECD, 1997) and collected information about the innovative factor (content) of the innovation in one or more of the five kinds of innovation. An innovative product or service may have more than one innovative feature, and the data included five dummy variables that were set to 1 if that factor is true for the firm's primary innovation.

The second explanatory variable was the reason for the innovation. This set of variables represents the primary reasons the firm undertook the innovation. It is also coded as one or more of the seven drivers for innovation as laid out in the Oslo Manual guidelines (OECD, 1997). Table 2 shows a brief description of the variables and their definitions (including the explanatory variables).

The study's control variables were firm age, number of employees (signifying the firm size), innovativeness, competitive environment, and R&D intensity. These agree with the variables used as controls in similar previous studies. We also used a variable signifying the shareholding percent of the largest shareholder of the company. This is an important variable to control for because ownership and governance effects drive innovation, as indicated by past research (Choi, Lee, &

Williams, 2011). Table 3 shows a correlation matrix of the variables under study. We have excluded the explanatory variables from the correlation matrix because there are 12 dummy variables, and correlation of those variables with continuous variables adds little value to overall understanding of their behaviors.

## 5 | RESULTS AND ANALYSIS

We have used an OLS-based hierarchical linear regression for our analysis because it is suitable for analyzing additional variances explained by the introduction of new explanatory variables, as is in this case (Tsai, 2001).

Table 4 shows the results of our analysis. We have presented four models: Model 1 depicts the base regression model with only the control variables. In Model 2, we add the explanatory variables for the innovation driver (reasons). In Model 3, we introduce only the innovation features for primary innovative product or service. In Model 4, we introduce all the explanatory variables.

The results show all the models are statistically significant, and the addition of explanatory variables increases the explanatory power of the models. Model 4, which includes both sets of explanatory variables, has the highest value of adjusted  $R^2$ , indicating additional variance explained by inclusion of both sets of explanatory variables.

**TABLE 2** Description and definition of variables used in the study

Variable type	Name	Definition
Dependent variable	Revenue growth (rev_grwth)	The dependent variable represents the growth in revenue in the three-year period from 2009 to 2012.
Explanatory variables	Innovative features: Important distinguishing feature of the main product or service compared to all other products or services already offered by the establishment	
	Feature_1	Introduce completely new functions
	Feature_2	Cheaper to produce and offer
	Feature_3	Better quality of existing product or service
	Feature_4	Based on new and different inputs
	Feature_5	Based on new technology or design not used so far by the establishment
	Reason for innovation: The firm introduced its main innovative product or service in order:	
	Reason_1	To replace a product or service already offered by the establishment
	Reason_2	To extend the range of products or services offered by the establishment
	Reason_3	To open new markets or increase market share
	Reason_4	To decrease cost of production or service
	Reason_5	To offer products or service already offered by competitors
	Reason_6	To comply with regulation standards
	Reason_7	To deal with decrease in demand of other product or service
Control variables	<b>Age</b>	<b>Age of firm</b>
	Rnd_intensity	Research and development expense of the firm per unit revenue
	Innovation	No. of new innovative products or services introduced by the firm in the preceding three-year period (self-declared by the firm)
	Competition	No. of competitors in the primary market of the firm (self-declared by the firm)
	Employees	No. of employees in the firm
	Percentage own	Percentage ownership of the largest shareholder of the firm

From the results table, we see that the coefficient for variable “Feature\_2” is significant and positive. This implies that revenue growth is positively affected when the innovative product or service is cheaper to produce or offer. Hence, Hypothesis 1 finds support at a 5% significance level.

The coefficients of variable “Reason\_1” shows an interesting result. Though the coefficient is significant, it is negative. It is the opposite of our hypothesized relationship. The negative, but significant, coefficient suggests that the introduction of new products to replace old products are counterproductive for the firm's revenue

growth. We also see from the table that the variable “Reason\_6” is significant. This indicates that innovation-driven revenue growth is positively affected by firms' innovative efforts designed to meet governmental regulatory compliance laws. Therefore, Hypothesis 3 is supported at a 5% significance level. We also note the variable “promoter\_own” is significant with a negative coefficient. This indicates the negative relationship of the variable with revenue growth. We can conclude that firms with lower largest promoter shareholding or more diversified shareholding have higher revenue growth. Therefore, Hypothesis 4 is supported at a 1% significance level.

**TABLE 3** Pearson correlation matrix for variables of study

	Mean	Std. dev.	1	2	3	4	5	6	7	8
Age	20.9006	13.51691	1							
Revenue growth (absolute)	234,931,153	6,012,679,675	.077*	1						
RnD_intensity	0.0786	0.1547	0.005	−0.075	1					
Largest owner holding	76.8	30.29	−.087**	−.115**	0.015	1				
Sales_2012	447,802,510	5,976,154,119	.085**	.995**	−.129**	−.226**	1			
Sales_2009	225,073,760	685,765,032	0.038	.097**	−.133**	−.225**	.194**	1		
Competitors	1,059.45	977.707	−.138**	−0.042	0.037	0.051	−0.042	−.084*	1	
Employees	259.46	714.011	0.008	.093**	−.118**	−.251**	.147**	.603**	−0.066	1
Innovation_quantity	7.61	15.506	−0.014	0.033	−0.018	−0.006	0.064	0.063	0.047	.106*

\* $p < .05$ , \*\* $p < .01$ .

**TABLE 4** Results of model regression analysis

	Model 1		Model 2		Model 3		Model 4	
	Coeff.	Std. error						
Constant	17.565***	0.326	17.816***	0.637	17.595***	0.701	17.822***	0.772
Age	-0.014*	0.008	-0.017**	0.008	-0.013	0.008	-0.016**	0.008
RnD_intensity	-2.989***	0.634	-2.935***	0.632	-3.049***	0.651	-2.901***	0.636
Percent_own	-0.023***	0.003	-0.022***	0.003	-0.025***	0.003	-0.023***	0.003
Employees	0.001**	0	0.001**	0	0.001**	0	0.001	0
Competition			0.167	0.194	0.212	0.196	0.155	0.196
Innovation			-0.046	0.295	-0.086	0.296	-0.04	0.297
Reason_1			-0.773***	0.206			-0.755***	0.209
Reason_2			0.422	0.423			0.221	0.437
Reason_3			-0.05	0.221			0.078	0.239
Reason_4			-0.069	0.198			0.199	0.242
Reason_5			-0.296	0.24			-0.38	0.246
Reason_6			0.374**	0.192			0.386**	0.197
Reason_7			-0.143	0.204			-0.158	0.215
Feature_1					-0.021	0.202	-0.167	0.209
Feature_2					0.363*	0.197	0.481**	0.246
Feature_3					0.106	0.593	0.318	0.599
Feature_4					0.202	0.199	0.104	0.199
Feature_5					0.008	0.197	0.087	0.206
Adjusted R <sup>2</sup>	.494		.519		.502		.521	
Degree of freedom	327		321		325		318	
Model F	54.17***		24.501***		26.618***		18.633***	

\*:  $p < 0.1$ ; \*\*:  $p < 0.05$ ; \*\*\*:  $p < 0.01$

## 5.1 | Validation and robustness

In line with current research trends, we employed the following tests to ensure the robustness of the results.

1. Collinearity diagnostics: We have done collinearity analysis to ensure that the model is valid and that collinearity of variables does not render the results invalid. The VIFs for all the variables used in the models were lower than 2, and the overall model VIF was 1.18.
2. Homoscedasticity analysis: We have performed Breusch-Pagan Test to ensure an absence of heteroskedasticity in our analysis. In our analysis, we failed to reject the null hypothesis of homoscedasticity at  $p < .05$ , and we thus infer homoscedasticity in our analysis.
3. Extreme value analysis: To check for robustness of the results and to ensure its validity in varied situations, we have tested the models for extreme subsets of the data, that is, for firms with year-2012 revenue in upper and lower quartiles of the total sample. Table 5 shows the results of the analysis. We have only reported the coefficients of explanatory variables in the interest of parsimony.

A check of the robustness results showed that our results are generally robust for both large and small firms, and the hypotheses results held steady. There are some additional interesting insights these results indicate. The most important of these is that for large firms, two additional factors—reasons for innovation and innovation content of product—became significant. These variables indicated that

for large firms, revenue growth is dependent on their innovative products offering better quality than existing products, and they innovate to offer products already offered in the portfolio of their competitors.

The most important of these is that for large firms, two additional factors—reasons for innovation and innovation content of product—became significant

## 6 | DISCUSSION

The results reported in this study have significant implications for both theory and practice. Through our analysis of data of firms from Bangladesh, we find that there are selective innovative features and reasons for innovation that drive firm growth. In agreement with extant research suggesting consumer price sensitivity in developing economies (Tian, 2016), our study also concludes that the innovative feature of cheaper products or services to offer leads to higher revenue growth. It is not surprising to see these results in their context because consumers in these economic setups value cost-effectiveness over other features like new functions, new inputs, or new designs.

Analyzing the reasons driving innovation, we find even more unique results. Lacking an initial regulatory environment or the slow buildup of advanced governmental regulations for environmental or social reasons (Arnold & Quelch, 1998) may force a firm to innovate to comply with new regulations. The cost of innovation may increase

**TABLE 5** Robustness check for model: Extreme value analysis

	Model 1 (upper quartile firms) Coeff.	Model 2 (lower quartile firms) Coeff.
Reason_1	−0.682**	−0.817***
Reason_2	0.614	0.196
Reason_3	−0.082	0.069
Reason_4	−0.009	0.186
Reason_5	−0.318*	−0.283
Reason_6	0.276**	0.452***
Reason_7	−0.164	−0.203
Feature_1	−0.214	−0.242
Feature_2	0.297*	0.683**
Feature_3	0.624*	0.441
Feature_4	0.096	0.148
Feature_5	0.074	0.11

\*:  $p < 0.1$ ; \*\*:  $p < 0.05$ ; \*\*\*:  $p < 0.01$

the entry barrier for competition, but it also may enhance social acceptance of the product and, consequently, the firm's revenue growth. Our results for Hypothesis 4 are in line with this domain's extant research that points to the fact that a nonconsolidated ownership may lead to greater drive toward meaningful innovation (Cohen & Klepper, 1996) and thus higher revenue growth.

However, the most interesting result involves Hypothesis 2. We found that innovation to replace older products or services leads to a decline in a firm's revenue growth. Though extant research suggests that phasing out old products and introducing new products should enhance revenues for firms (Ahlstrom, 2010; Dodgson et al., 2006), we found otherwise, and, instead, this may lead to a revenue growth slowdown. On post-facto analysis of our results, this does not seem counterintuitive because in developing economies, consumers focus on cost effectiveness. And new products that do not decrease cost, might not be lapped up enthusiastically by most consumers. In addition to a lack of consumer interest, heavy investment in such innovations may drive the focus away from traditional firm capability-building activities and then lead to lower revenue growth.

The robustness analysis delivered another insight regarding the behavior of upper quartile firms. Though the firms at both extremes displayed results similar to the overall results, upper quartile firms showed significance for an additional reason impacting firm revenue: offering products their competitors provide may lead to a decline in revenue. These results seem to be further bolstered by the negative coefficient of R&D intensity in our analysis, which is contrary to dominant understanding of the domain (Jha & Bose, 2016a). However, the results show an increase in R&D investment may lead to lower cost effectiveness for the products and hence lower revenue growth for the firm. Any innovative efforts in such economies must therefore be sensitized and planned with cost effectiveness in mind.

## 7 | LIMITATIONS AND CONCLUSION

This study provides an insight into the implications of various innovative features and the reasons for launching innovation on eventual firm revenue growth. However, the study is not without its share of

limitations. The first is generalizability. The context of the study is developing economies, actualized in Bangladesh, but we must acknowledge that economies around the world have diverse intricacies that require understanding of the local factors that may play an important role in defining revenue growth in those economies; thus, research should focus on local situations.

Second, the study used self-reported innovation data because there is a lack of publicly reported and scrutinized figures of innovation. Most studies in this domain rely on self-reported innovation figures, and the drawback to this is the possibility of over- or under-reporting the innovation and miscalculating the implications of the innovation on the dependent variable. We believe we mostly mitigated the effects of this in our research by using a large-scale dataset collected by surveys conducted by world bodies with government support, but we cannot completely eliminate the implications of this issue.

Our study builds into the theory for developing a nuanced understanding of firm growth in developing economies. This study is novel because it attempts to identify not just innovative features but also reasons for innovation and their impact on firm's revenue growth in a growing-economy context in which the premium for cost efficiency is generally regarded as higher than for innovation.

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**How to cite this article:** Hasan R, Jha AK. What's good for business growth: Implications of innovativeness and price sensitivity for firms in developing countries. *Strategic Change*. 2018;27:469–476. <https://doi.org/10.1002/jsc.2231>