

# Post-Entry (Level of) Internationalization among Indian Born Globals: An Empirical Investigation on impact of Business Group Affiliation

Manish Ganvir \*<sup>1</sup> and Neeraj Dwivedi<sup>2</sup>

<sup>1</sup> Doctoral Student, Department of Strategic Management, Indian Institute of Management, Lucknow, India. Email [fpm10008@iiml.ac.in](mailto:fpm10008@iiml.ac.in) , [manishganvir@gmail.com](mailto:manishganvir@gmail.com)

<sup>2</sup> Associate Professor, Department of Strategic Management, Indian Institute of Management, Lucknow, India. Email [neerajd@iiml.ac.in](mailto:neerajd@iiml.ac.in)

## Abstract

Understanding level of internationalization and its relationship with financial performance is essential for establishing sustainable strategies. However, until recently little had been known about the post-entry internationalization among born global firms in emerging economies. This paper studies three key aspects: first, it investigates the association between firms' post-entry level of internationalization and financial performance. Second, it identifies and empirically tests the moderating impact of business group affiliation on this relationship and third, it establishes the above relationship for the latest global post-recession period.

Overall, the results of this study show that that export intensity (EI) and firm performance are positively related. This relationship is curvilinear in nature for both productivity and profitability. Moreover, business group affiliation of Indian Born Global firms (IBG) is a practical synergistic strategic imperative in their quest for a higher level of internationalization and financial performance as it enhances this relationship. This paper has an Asian focus, a large sample of IBG firms was identified based on born global definition and post-entry internationalization age requirement of this study. A balanced panel of 411 firms' data was collected for 4 years from 2009 to 2012.

The nature of relationship of export intensity with financial performance and positive impact of business group affiliation on this relationship adds to existing International Business theory as it improves understanding about post-entry internationalization period of born global firms from emerging markets. This is the first research to study these key aspects for Indian born global firms.

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**Keywords** – Born Globals, Post-Entry Internationalization, Business Group, Balanced Panel, Post-Recession, Emerging Economy Firms

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Paper Type	Research Paper

## **Introduction**

Internationalization as a subject has fascinated researchers over the years and still continues to do so. Early internationalizing firms, often referred as 'Born Global' (BG) firms have been a favored ground for testing, modifying and validating existing theories in strategic management. Literature on BGs is still evolving, and little is studied on life-stages of these firms other than the initial entry phase. Liberalization and reduced trade barriers have made it easier for firms to enter international markets earlier in their life-stage [1]. As a result, there is an increased influx of such firms from emerging economies, making it pertinent to investigate into factors impacting performance of such firms [2].

Interestingly, even after two decades of research on Born Global firms, little has been studied on how these Born Global firms' progress, specifically the various phases in the life cycle of Born Global firms and factors that impact the stage after initial internationalization [4, 5, 6]. After inception, an important phase in the life cycle of a born global firm is the phase of internationalization; most research is focused on this phase. The next phase can be termed the "post-internationalization" phase, where certain critical aspects take prominence, such as, the firms garner relevant experience and incorporate this learning into their knowledge banks and thus it plays a crucial role in their future strategic decisions. This paper tries to address this relevant gap and improve on existing internationalization theories for 'post-entry' dynamics among born global firms.

India presents an interesting case as international business is an important source of foreign exchange for the country other than FDI. The Indian economy is growing at a faster rate than most other world economies over the past two decades. One highlight of this economic growth is the significant growth in Indian outward FDI as argued by Ramamurti & Singh [7]. India provides a good ground to study the phenomena of underdevelopment of both 'hard' and 'soft' institutions, which are characteristics of emerging and developing countries. India provides a strong case study for firms from emerging economies investing in advanced countries [7]. The business group is a popular and important form of ownership structure in many emerging market countries, which are plagued with 'institutional voids'. Business groups provide a sheltered environment for its group companies to evolve and prosper. We find literature on business group affiliation [8] and its impact on BGs performance scarce, especially for emerging markets. One of the critical reasons for selecting Indian companies for the study is that there is a significant gap in literature on behavior of Indian Born Globals; this study aims at reducing this gap. Regardless of these reasons, though, we clearly attempt to provide a general response about the question of the strategic choices on the level of internationalization of firms post their internationalization stage, not a specific determination about India.

## **Literature Review**

In this section, we will review relevant literature on born globals, financial performance measures, level of internationalization, post-entry internationalization, business groups in emerging markets, and post-recession period.

### **Born Global (BG) Definition**

In two decades of research on Born Global firms, many researchers have used context, country, time and other variables to define set of firms that display characteristics to be classified as born globals. We use the most prevalent born global firms' definition in literature, made popular by researchers such as Madsen, Rasmussen and Servais [9], Halldin & Braunerhjelm [10]. Accordingly, firms are categorized as Born Globals, when they sell their first product in foreign markets within three years of their inception & derive at least 25% of their turnover outside their home market within that period.

### **Financial performance measures**

Key measures of financial performance found in BG literature are profitability & productivity. Productivity, measured as return on assets (ROA), gives us an insight into how efficiently the business is employing the resources invested in fixed assets and working capital [11]. Profitability is measured using Return on Capital Employed (ROCE) ratio. It is used for evaluating a company's efficiency & the quality of its management [12].

### **Post-Entry Internationalization Period**

The post-entry dynamics of internationalization is increasing in importance [13]; however, little work has focused on the level of internationalization these firms achieve after the initial entry into international markets. Argument by Bruneel et al. [14] further highlights the crucial linkage of experiential learning, congenital knowledge and vicarious learning on the firms' propensity to further internationalize in its post-entry period.

There is no consensus on what constitutes post-entry period, researchers have defined period based on specific contexts and characterized these as post-entry period. Vivarelli & Audretsch, [15] studied 100 Italian born global firms of age more than 3 years as post-entry period. Closer to home, Chelliah & Sulaiman, [16] considered born global firms more than 6 years as in post-entry period for their study on 77 Malaysian firms.

For our study, we have looked at a conservative period of 5 years after inception for born global firms to have entered post-entry internationalization period. We can safely assume this cut off period for our study as the average age of the firms in our dataset is 17 years, hence they have already spent sufficient time in international markets to have moved from initial entry phase and entered into the post-entry internationalization stage.

### **Level of Internationalization (Export Intensity)**

The main purpose of born global firms is to garner sales from foreign markets, hence it a crucial factor in firms' performance and survival [3]. Export Intensity is the ratio of foreign sales to total sales, and is widely used measure of the level of internationalization in Born Global research [17].

## **Theory and Hypothesis**

For the last three decades, International Business (IB) literature has focused on how internationalization and performance are related. Researchers have found five types of relationship between level of internationalization and financial performance, positive relationship [19], negative [20], U shaped [18], inverted U shaped [21] and S shaped [22] models. Thus, this relationship is inconclusive, and needs further exploration.

We base our argument on the fundamental assumption that international business is good for companies, and that international expansion will lead to superior financial performance [18]. We argue that Indian firms tend to enter foreign markets as a market seekers and later exploit location-specific advantages inherent in India to gain an edge over the firms in the importing countries. Moreover, exporting has added benefits such as improving and developing firms' competitive advantage [23], managerial skills [24, 25].

On the other hand, however, it is well known that exporting includes additional costs, risks and uncertainties, higher costs of coordination, monitoring, especially in markets separated by large distances coupled with the diversity [26].

Given the fact that for born global firms, exports are essential for survival and growth [3], we argue that, born global firms in their post-entry phase would have overcome most of these costs and hence there is little chance of the negative impact of these costs dominating performance. Taking this argument a step further, we believe that as the export intensity rises, so does the additional benefits of economies of scale, better control, and greater risk diversification as exports scope also increases and it causes benefits to accrue. This gives us our first two hypotheses that there will be a positive curvilinear relation between EI and financial performance for IBGs of emerging markets. As financial performance is measured via profitability and productivity, we elaborate this hypothesis as follows:

- |           |   |
|-----------|---|
| <i>H1</i> | <i>Level of Internationalization will have a positive curvilinear relationship with IBGs profitability.</i> |
| <i>H2</i> | <i>Level of Internationalization will have a positive curvilinear relationship with IBGs productivity</i>   |

### **Business Group Affiliation**

Usually, institutions present in the market regulate economic activities through formal and informal rules as a basis for the production, exchange, and distribution [27]. However, emerging economies are characterized by imperfect markets and institutional voids causing higher costs for conducting business [28]. It presents an opportunity for some firms which have the necessary resources and capabilities to bridge these institutional voids.

According to Institutional Theory, institutional voids exist in emerging markets due to imperfect markets [29] and could have an adverse effect on business performance and efficiencies [30]. Business groups play an important role in plugging these institutional voids and provide the much needed welfare-enhancing functions and enhance the group companies' ability to raise capital, train, and rotate managerial talent among group firms and use common brand names in marketing their products.

Based on Network theory, we argue that firms within business groups exhibit much stronger network ties [31]. This affiliation helps the firm to build new relationships and trust with other group members, this in turn allows the firm to have access to new skills and gain credibility [32]. Group affiliation also serves as an information highway and enables BG firm to identify new market opportunities and knowledge [33], allowing these BG firms to improve on their level of internationalization and in turn financial performance.

Following Resource-Based View theory of the firm [34], the conceptual model posited that the level of internationalization influences firm profitability. According to Grant [35], internal resource is a key factor for the generation of competitive advantage of the firms. Resulting to better export performance and firm profitability.

Research has shown that business group affiliation has its positive and negative effects. Key effects specifically for Indian business groups are identified in Table 1.

Table: 1 Positive and Negative effects of Indian business group affiliation

Positive Effects of BGA	Negative Effects of BGA
Network for Internationalization [36]	Cost of affiliation: tunneling of resources [28]
Availability of pooled resources [37]	Profit redistribution [7]
Credibility to enter international markets [30].	Indian business groups lack foreign market expertise [28]

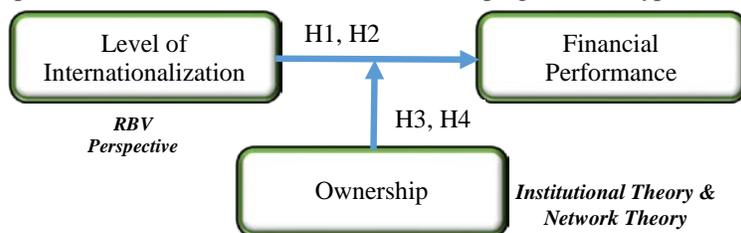
Based on RBV, Network theory and Institutional theory, we argue that Indian BG firms affiliated to business groups rely on business group network for accessing resources and capabilities [38] that they do not own. In case of Indian BGs, these resources are primarily managerial support, information, knowledge and capital [37] as well as for credibility [30]. These benefits are greater than the associated costs. The combination of reduced costs and decrease in conflicts enhances business group firms' performance, hence the affiliation with a business group of BG firms will positively affect the firms' financial performance.

Moreover, the relationship between the firm and its business group may be interpreted as a good sign by capital markets [38]. The market anticipates efficient control by the virtues of this affiliation, as business group can provide required management skills, better networks and help the firm in investing to collect intangible assets [39]. These could help the firm in improving its competitive advantage in international markets, enhancing its export intensity [40].

In conclusion, we argue that affiliation to a business group would have a positive impact on export intensity and its relation with financial performance due to advantages of lower cost of capital, networks within the group providing managerial support, knowledge, credibility and other intangible assets that enable firm to improve on the level of internationalization and subsequent financial performance (profitability and productivity). Basis this we test the following two hypotheses for moderation effect of business group affiliation for IBGs.

- |    |   |
|----|---|
| H3 | Business group affiliation will positively moderate relationship of EI with IBGs profitability. |
| H4 | Business group affiliation will positively moderate relationship of EI with IBGs productivity   |

Figure 1 presents the theoretical framework for developing research hypotheses of this study.



### Post - Recession Period

Firms across the globe faced recessionary pressures in 2007-2008 due to a major economic downturn affecting economies around the world, this recession was labeled as 'the

global financial crises'. The effects of this recession were visible in production, visible in production, employment, real income, and other indicators' [41]. Firms have survived and recovered this period, our interest is to study Indian Born Global firms' post-recession. Hence, we select data for this study from 2009 onwards to 2012.

## Methodology

### Data

Data for this paper has been taken from Prowess database. This database covers the majority of Public Indian companies and compiles financial data using audited annual reports provided by the companies. This database is extensively used in large number of previous studies primarily due to its relative good quality and accuracy [30]. Some annual reports were collected from firms' websites. Firms are identified based on their year of incorporation (minimum age 5 years) and fulfilment of born global definition.

Using the above, we identify 790 Indian firms satisfying the definition, this set was further refined by removing firms with incomplete data. This finally gave us 411 firms with balanced data for 2009 to 2012, we use 2009 data to calculate the prior year values only. This resulted in 1233 data points.

### Measures

*Dependent variables:* Financial performance is measured on two dimensions, one productivity and second profitability.

ROA = Profits after taxes + interest / Total assets ..... (1)

ROCE = Operating Profit / Capital Employed ..... (2)

(Where, Capital Employed = Net Worth + Debt).

### Independent variable

*Export intensity (EI):* EI is defined as a percentage of the firm's sales resulting from exports, has been widely used in prior research [40]. We also use squared, cubic and prior year term of EI as independent variables.

### Control Variables

Firm performance can be affected by variables other than EI, therefore it is necessary to include certain variables to control for these effects in the dependent variables.

*Firm Sizes:* We use the logarithmic value of sales figures as an indicator of firm size.

*DER:* Debt to equity ratio is a measure of how much the firm relies on debt to finance its undertakings. High levels of debt financing relative to equity increases the monitoring of management actions since the owners of the debt are going to act to ensure that their investment is protected. It is included in the study as a control measure.

*Firm Age:* Firm age is controlled, as per prior studies in this field [40].

*Industry Type:* Industry type is controlled as in [41]. A series of dummy variables were included to control for industry effects. Dummies were prepared using SIC code (second level) for industry classification, are taken from Rugman, [43]. In all we included nine industry dummies as control variables.

### Moderating variable:

*Business group*: Business group affiliation (BGA) is coded as a categorical variable [46] and analyzed using Moderated Multiple Regression (MMR) model.

### Regression models

Based on four hypotheses stated, we have four main regression equations. The control regression equation is prepared on similar lines but not stated below.

$$ROCE_{it} = C + \beta_1 EI_{it} + \beta_2 EI_{it} * EI_{it} + \beta_3 EI_{it} * EI_{it} * EI_{it} + \beta_4 EI_{(t-1)} + \beta_5 DER_{it} + \beta_6 AGE_{it} + \beta_7 SIZE_{it} + \beta_{8-16} \text{ Industry Dummies}_{it} + \varepsilon \quad \text{(Eq1)}$$

$$ROA_{it} = C + \beta_1 EI_{it} + \beta_2 EI_{it} * EI_{it} + \beta_3 EI_{it} * EI_{it} * EI_{it} + \beta_4 EI_{(t-1)} + \beta_5 DER_{it} + \beta_6 AGE_{it} + \beta_7 SIZE_{it} + \beta_{8-16} \text{ Industry Dummies}_{it} + \varepsilon \quad \text{(Eq2)}$$

$$ROCE_{it} * BGA_{it} = C + \beta_1 EI_{it} + \beta_2 EI_{it} * EI_{it} + \beta_3 EI_{it} * EI_{it} * EI_{it} + \beta_4 EI_{(t-1)} + \beta_5 DER_{it} + \beta_6 AGE_{it} + \beta_7 SIZE_{it} + \beta_8 BGA_{it} + \beta_9 EI_{it} * BGA_{it} + \beta_{10} EI_{it} * EI_{it} * BGA_{it} + \beta_{11} EI_{it} * EI_{it} * EI_{it} * BGA_{it} + \beta_{12} EI_{(t-1)} * BGA_{it} + \beta_{13-21} \text{ Industry Dummies}_{it} + \varepsilon \quad \text{(Eq3)}$$

$$ROA_{it} * BGA_{it} = C + \beta_1 EI_{it} + \beta_2 EI_{it} * EI_{it} + \beta_3 EI_{it} * EI_{it} * EI_{it} + \beta_4 EI_{(t-1)} + \beta_5 DER_{it} + \beta_6 AGE_{it} + \beta_7 SIZE_{it} + \beta_8 BGA_{it} + \beta_9 EI_{it} * BGA_{it} + \beta_{10} EI_{it} * EI_{it} * BGA_{it} + \beta_{11} EI_{it} * EI_{it} * EI_{it} * BGA_{it} + \beta_{12} EI_{(t-1)} * BGA_{it} + \beta_{13-21} \text{ Industry Dummies}_{it} + \varepsilon \quad \text{(Eq4)}$$

Where, i = firm (1 – 411); t = time (1 – 3 years), EI is export intensity, ROCE & ROA are financial performance indicators, Age is in years, Size is log sales, DER is ratio, we evaluate 9 industry dummies.

### Methodology

Step-wise pooled Ordinary Least Square (OLS) methodology is used after testing for stationarity of the panel data. Moderated Multiple Regression (MMR) model in SPSS is used for evaluating the moderation impact. This approach provides for integration of cross sectional time series data with multiple dependent variables.

For this paper, we have selected the methodology outlined by Hsu and Wang, [45]. To arrive at this decision to use pooled OLS methodology, we followed a step by step method to arrive at the most optimal analysis methodology, we checked stationarity and endogeneity of panel data using Hausman Specification test in STATA [47]. Both the dependent variables ROCE and ROA are tested for normality using the KS test and Shapiro-Wilk test [48]. As the statistics in KS test results is greater than 0.05, one can fairly assume that the dependent variables are normally distributed. Pearson's correlation matrix, was used to check multicollinearity and mean centering of EI was done as per [48]. There was no multicollinearity issue in the data set. To check for Heteroskedasticity, Breusch-Pagan / Cook-Weisberg test was used [50]. Chi-Square values were checked, there is no heteroskedasticity present in the dataset.

## Results

### Demographic Characteristics

A total of 411 Indian Born Global firms were selected and a total of 1233 data points analyzed. Nearly, 57% of IBGs are part of business groups. These firms have median size just about 1 billion INR.

### Correlation Analysis

Pearson's correlation matrix (Table 2) shows significant correlations between ROCE and EI as well as EI<sup>3</sup>. Whereas, ROA shows significant correlation with only EI<sup>3</sup>. Detailed

hypothesis testing is done in table 3. Industry dummies were used for analysis, but are omitted from the tables.

**Comment [m1]:** Change tables as per required and shown in document

Table 2: Summary Statistics and Pearsons' Correlation Matrix

Correlations	Mean	Std Dev	ROCE	ROA	SIZE	AGE	EI	EI <sup>2</sup>	EI <sup>3</sup>	EI <sub>(t-1)</sub>	BGA
Profitability (ROCE)	3.4	20.5	1								
Productivity (ROA)	2.3	15.3	.669**	1							
SIZE	2.9	1.1	.218**	.185**	1						
AGE	17.2	7.9	-.014	.018	.094**	1					
DER	1.3	6.1	-.068*	-.042	.052	-.009					
EI	0.0	19.9	.073*	.018	.078**	.003	1				
EI <sup>2</sup>	398.4	299.0	.007	-.042	-.103**	-.048	.719**	1			
EI <sup>3</sup>	4670.3	13022.7	.379**	.716**	.108**	.011	.025	-.009	1		
EI <sub>(t-1)</sub>	0.0	32.5	.063*	.015	-.030	-.005	.789**	.651**	.051	1	
BGA	1.4	0.5	.038	.018	.192**	.053	-.022	-.057*	.046	-.036	1

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

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

N = 1233; Industry Dummies not shown in correlation matrix

## Empirical Results

Regression analysis for profitability (ROCE) and productivity (ROA) regression results are shown in Table 3

### Direct relationship

Model 1 in table 3, shows the control model with control variables (Size, Age, DER and industry), this control model only explains just about 5% variance (adjusted R<sup>2</sup>) of the dependent variable profitability. Comparing with model 2 (regression equation 1) we see export intensity terms explaining a good 18.1% of variance in ROCE. Beta values of EI ( $\beta = 0.07, p < 0.1$ ) and EI<sup>3</sup> ( $\beta = 0.36, p < 0.01$ ) are significant. This shows a clear curvilinear (linear + cubic term) relationship of EI with profitability (ROCE). Hence *our first hypothesis (H1) is supported.*

Moving over to Model 5 which is control model for productivity (ROA), this control model explains even less 3.7% of variance in ROA. Comparing with model 6 (regression equation 2) we see export intensity terms explaining 52.7% variance in ROA. Beta values of EI<sup>3</sup> ( $\beta = 0.71, p < 0.01$ ) is significant. This shows a clear curvilinear (only cubic term) relationship of EI with productivity (ROA). Hence *our second hypothesis (H2) is supported.*

To check for lag effect of export intensity we also evaluated the term EI<sub>(t-1)</sub>, however, for both ROCE and ROA this term did not have any significant explanatory power, though we did not have any explicit hypothesis for this effect, we looked at it purely as academic interest.

### Moderating Effect

#### Profitability (ROCE)

To explore the nature of relative significance of business group affiliation in the links between export intensity and financial performance (profitability and productivity), we used Moderated Multiple Regression (MMR) to estimate the moderating effect of a categorical variable on the relationship between continuous predictors and a continuous criterion, this is a widely used technique. Starting with the relationship of EI on ROCE moderated by BGA, we start with Model 3 in table 3, where we introduce term BGA into the regression equation 1, there is no change in R<sup>2</sup> value also the beta coefficient of BGA term is non-significant. We can conclude that BGA term on its own does not have any direct impact on explaining ROCE.

Table 3: Regression analysis of profitability (ROCE) and productivity (ROA) using pooled panel and MMR techniques in SPSS

	Profitability (ROCE)				Productivity (ROA)			
	Model 1 Control	Model 2 EI	Model 3 EI + BGA	Model 4 Full EI Moderated	Model 5 Control	Model 6 EI	Model 7 EI + BGA	Model 8 Full EI Moderated
	Beta (t value)	Beta (t value)	Beta (t value)	Beta (t value)	Beta (t value)	Beta (t value)	Beta (t value)	Beta (t value)
(Constant)								
SIZE	-2.17 0.23*** (8.11)	(-0.93) 0.18*** (6.54)	(-0.92) 0.18*** (6.38)	(-0.84) 0.15*** (5.7)	(-1.83) 0.19*** (6.69)	(0.15) 0.10*** (4.61)	(0.83) 0.10*** (4.83)	(0.14) 0.07*** (3.91)
AGE	-0.03 (-1.14)	-0.04 (-1.39)	-0.04 (-1.39)	-0.04 (-1.5)	0.00 (0.12)	0.00 (-0.19)	0.00 (-0.11)	0.00 (-0.17)
DER	-0.07*** (-2.66)	-0.07*** (-2.53)	-0.07*** (-2.54)	-0.06*** (-2.45)	-0.05* (-1.75)	-0.03* (-1.67)	-0.03 (-1.62)	-0.03 (-1.59)
Export Intensity		0.07* (1.81)	0.04 (0.54)	-0.14 (-0.77)		0.07 (1.35)	0.07 (1.34)	-0.15 (-1.21)
Export Intensity <sup>2</sup>		-0.03 (-0.69)	-0.03 (-0.66)	0.13 (1.16)		-0.03 (-1.02)	-0.03 (-1.06)	0.22*** (3.15)
Export Intensity <sup>3</sup>		0.36*** (13.65)	0.35*** (13.52)	-0.76*** (-8.97)		0.71*** (35.5)	0.71*** (35.56)	-0.66*** (-11.96)
Export Intensity(t-1)		0.04 (0.59)	0.04 (0.59)	0.23 (1.4)		-0.05 (-1.03)	-0.05 (-1.03)	0.12 (1.08)
Business Gr Aff			0.00 (0.03)	0.03 (0.63)			-0.03* (-1.64)	0.02 (0.72)
BGA*Export Intensity				0.18 (0.95)				0.21* (1.68)
BGA*Export Intensity <sup>2</sup>				-0.23** (-2.1)				-0.35*** (-4.97)
BGA*Export Intensity <sup>3</sup>				1.19*** (13.75)				1.46*** (25.87)
BGA*Export Intensity(t-1)				-0.23 (-1.3)				-0.20* (-1.69)
F value	7.40***	20.38***	17.83***	26.03***	5.27***	92.45***	86.96***	142.49***
R <sup>2</sup>	0.062	0.190	0.190	0.300	0.045	0.533	0.534	0.702
Adj R <sup>2</sup>	0.054	0.181	0.181	0.289	0.037	0.527	0.527	0.697
Durbin Watson	1.92	1.92	1.90	1.90	2.01	2.01	2.01	2.01
ΔR <sup>2</sup>		0.127	0.000	0.111		0.487	0.001	0.168

Notes: N=1233; Standardized beta coefficients are reported; t statistics are in parentheses; significance levels (2 tailed) \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1  
ΔR<sup>2</sup> values across subsequent models

Next we use regression equation 3, the results are depicted in Model 4, and there is a significant improvement in explanatory power of the model (adjusted R<sup>2</sup> from 18.1% to 28.9%). In model 4, also show that both squared term and cubic term of EI are significant. The sign for EI<sup>2</sup> is negative ( $\beta = -0.23$ ,  $p < 0.05$ ), whereas the EI<sup>3</sup> is positive ( $\beta = 1.19$ ,  $p < 0.01$ ). This shows a clear curvilinear (squared and cubic term) moderating effect of BGA on relationship of EI with profitability (ROCE). Hence *our third hypothesis (H3) is supported.*

### Productivity (ROA)

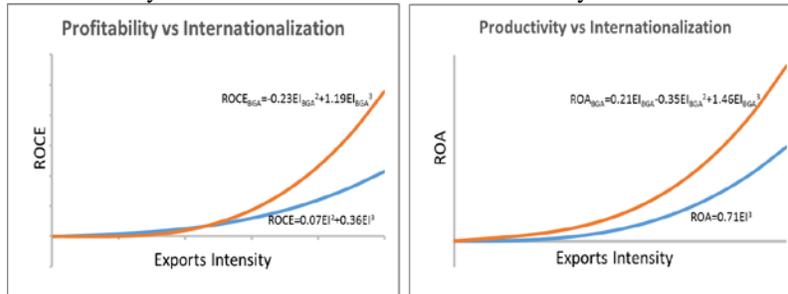
Now for relationship of EI on ROA moderated by BGA, we start with Model 7 in table 3, where we introduce term BGA into the regression equation 2, there is minor change in R<sup>2</sup> value

and the beta coefficient of BGA term is just significant ( $\beta = -0.03, p < 0.10$ ). So there is some degree of direct relationship of BGA with ROA, though there is no increment in explanatory power of the model.

Next we use regression equation 4, the results are depicted in Model 8, and there is a significant improvement in explanatory power of the model (adjusted  $R^2$  from 52.7% to 69.7%). In model 8, also show that all three terms, linear, squared and cubic term of EI are significant. With EI having positive sign ( $\beta = 0.21, p < 0.10$ ), the sign for  $EI^2$  is negative ( $\beta = -0.35, p < 0.01$ ), whereas the  $EI^3$  is positive ( $\beta = 1.46, p < 0.01$ ). This shows a clear curvilinear (squared and cubic term) moderating effect of BGA on relationship of EI with productivity (ROA). Hence *our fourth hypothesis (H4) is supported*.

Figure 2a and 2b depict the curvilinear relationship of EI with financial performance. The moderation by ownership (business group affiliation) has positive impact and improves the relationship.

Figure 2a Profitability vs Internationalization & 2b Productivity vs Internationalization



### Conclusions

In this paper, we utilized multi-theoretical approach (RBV, Institutional theory and Network Theory) in IB literature to empirically investigate an under-researched phenomenon, namely, the effect of firms' internationalization on financial performance outcomes for post-entry period of born global firms from emerging economies especially for post-recession period.

We used pooled OLS and MMR technique to analyze the relation of born global firms' post-entry internationalization with both profitability and productivity. Additionally, we also evaluated the moderating impact of ownership (affiliation to business group) on this relationship. Our study uses a fairly large data sample (balanced panel of 411 firms, with 1233 data points), across nine major industry sectors.

Our findings support our argument on Export Intensity having relation with financial performance measures, EI explain 18.1% variance in ROCE and 52.7% variance is ROA. This relation is curvilinear in nature. Our finding confirmed that export intensity had a strong effect on firm profitability and productivity. Based on the empirical results it is argued that the more export oriented the firms are, the greater would be their profitability. The empirical evidence of type of relationship tries to resolve the ambiguity surrounding the nature of relationship that level of internationalization (export intensity) exhibits with performance.

These results are different from earlier results of Lu and Beamish [51] where they found negative impact of export intensity on firm performance in case of Japanese economies. We

believe our results hold as our results are for emerging market firms, also Indian born global firms are small to medium size (median size is less than 1 billion INR), hence they have greater scope of growth and scope of internationalization, hence at present they exhibit a positive curvilinear relationship. Also, we have controlled for size of firm future research can be designed to take into account firm size to check the nature of this relationship.

Further, we empirically prove the positive moderating impact of business group affiliation on relationship of export intensity and productivity as well as profitability. Overall, our findings add to existing IB theory as it improves understanding about post-entry internationalization period of born globals from emerging markets.

We believe our results have practical implications for numerous parties, such as shareholders, institutional investors, scholars, policymakers and managers. It emboldens modern day managers to make further foray into internationalization due to its positive benefits on both productivity as well as profitability.

### **Limitations and Future Research**

We have controlled for firm size and industry, further research can be conducted to explore nuances of firm size impact on the relationship, we believe, larger firms will exhibit lower growth rate and hence have lower slope on their relation of EI with performance.

Further we have controlled variation by industry in this study, further enriching work can be attempted by comparing relationships by industry sectors. In our study, control model 1 and 5 show significant betas for agriculture, textile, Software and other service sectors. These can be starting point for a future research on this topic.

Our study incorporates only born global firms, a generalized study can incorporate other internationalizing firms (slow internationalizers) as well. To get an overview of the export intensity relationship with performance for exporting firms.

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