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The Inter-Relationship between Initial Profits, Growth-Focused Firms and Profit-Focused Firms: Evidence from KSE 100-Index Pakistan

Maryam Jabeen (Corresponding author)
PhD Scholar, Institute of Management Sciences, Peshawar, Pakistan
Email: mar_j99@yahoo.com

Attaullah Shah
Assistant Professor, Institute of Management Sciences, Peshawar, Pakistan
Email: attashah15@hotmail.com

Abstract
Profit and growth are considered as important goals in managing firms. This study tests the impact of initial profits on the growth and profit on a sample of firms listed at Karachi Stock Exchange (KSE) for the period 2006 to 2011. In addition to initial profits the study also checked the impact of leverage, firm’s size and age on profitable growth. Logistic regression borrowed from the work of Davidsson et al. (2009) was used to find out whether profit at initial stages of the firm determines profitable growth for the firm. The average growth rate of the companies was calculated for the last three years. After calculating the average growth rate the firms were then classified into two groups based on the median value of the growth. High growth firms were further classified into low and high profits based on the median of ROA (Return on Assets). The findings showed that initial profits had a positive significant impact on profitable growth. While firm’s size, age and leverage had no impact on profitable growth of the sampled firms. In comparison to growth-focused firms, profit-focused firms are more likely to reach a state of high growth and high profits.

Keywords: firm growth; initial profit; profitable growth; firm’s size; resource-based view; firm’s age; leverage.

1. Introduction
In managing firms, growth and profits are considered as important goals of many firms. The dynamics of firm profitability and growth are a major issue for industry practitioners as well as academic researchers (Goddard et al., 2006). To achieve profitable growth, firms either follow growth-focused or profit-focused tracks as it is not an easy task to simultaneously achieve these two objectives. In emerging economies without well-developed financial markets, profits and retained earnings are an important source of
financing. A profitable firm has the potential to capture external sources of capital and they can invest from retained earnings (Rajan and Zingales, 1998).

For business managers’ sales growth is the most common objective (Steffens et al., 2009; Hubbard and Bromiley, 1994). A great deal of emphasis is placed on growth per se as an indication of business success by policy-makers, researchers, practitioners. In most industry settings growth is considered as one of the key benchmarks of success. However, recent studies have shown that growth is not the antecedent of profitability (Markman and Gartner, 2002) and rapid growth could seriously stall firms’ profit generation (Gartner, 1997). Growth is essential for firms but pursuing growth on the longer term may not always be a source of value addition to a firm (Chathoth and Olsen, 2007). As growth is unlikely to be sustainable (Ramezani et al., 2002) firms starting with low profitability levels usually do not achieve profitable growth. The proposition that growth draws the profit cart is supported by some relevant theories but empirically it is still ambiguous.

Limited attention has been devoted to the study of the relationship between growth and profitability (Davidsson et al., 2006 a). This study reveals in a comprehensive way how a firm can achieve a state of profitable growth in an efficient way. It finds out that in order to obtain profitable growth which track is more valuable for a firm. Does higher profitability drives subsequent profitable growth for the firm or conversely high growth leads to profitable growth. The study also determines the extent to which the control variables like firm’s size, firm’s age and leverage have an impact on the profitable growth of the firm. To the best of my knowledge, in Pakistan, no other study has so far examined the impact of initial profits on profitable growth of a firm.

The remainder of the paper is organized as follows. Section 2 and Section 3 examines the theoretical arguments for firms becoming more profitable as a result of growth. It then reviews the empirical literature to demonstrate the lack of general support for this notion and highlights the importance of profits for a firm to attain profitable growth. It also discusses Resource-Based View focusing on profitability before going for growth and then develops the hypothesis. Section 4 describes the specification of the model, sample and the detail of the variables. Section 5 presents the discussion of the empirical results and Section 6 concludes the study and also addresses limitations and recommendations.

2. Literature Review

Firms in order to attain profitable growth either follow growth-focused or follow profit-focused strategies (Jang, 2011). It is commonly believed that it is growth that draws the profit cart. Theories like First Mover Advantages (FMAs) (Lieberman and Montgomery, 1988), network externalities (Katz and Shapiro, 1985), experience effects (Stern and Stalk, 1998) and scale economies (Besanko et al., 2004) suggest that profitability is derived through growth either through establishing a stronger market position or through lowering of costs.

However, recent studies have shown that growth does not lead towards profitability (Markman and Gartner, 2002; Chathoth and Olsen, 2007). Profit generation of a firm slows down due to rapid growth (Gartner 1997; Aaker and Day, 1986). A study by Davidsson et al. (2009) claimed that in comparison to growth-focused firms, profit-focused firms were in better position to reach profitable growth in future. Firms that
focused on profits were more likely to reach a state of high growth and high profits in comparison to growth-focused firms.

A consistent positive impact of growth on profitability has not been found in empirical studies. Some studies have found no relation between the growth and profitability (Markman and Gartner, 2002); some have found a negative impact of growth on profitability (Reid, 1995). Gartner (1997) findings showed that rapid growth slows down profit generation while Capon et al. (1990) findings showed that growth is consistently related to higher financial performance of a firm.

The Pecking Order Theory suggests that profitable firms have the cost of capital advantage as these firms can retain more internal cash flows than growth-focused firms. Profit-focused firms are in a better position to become profitable as they have the competitive advantage because these firms can create a product or service that has the considerable value above the cost (Amit and Zott, 2001).

Profitable growth of a firm is considered as the cornerstone of the resource-based view. According to the resource-based view (RBV) of a firm sufficient level of profitability will result in sound growth for a firm. According to RBV, firms are able to create value and will exhibit a track of profitable growth if they follow those growth opportunities that will match their resource base. Higher firm performance is mainly attributed to a competitive advantage that a firm has. In order to sustain that competitive advantage different resources of firms have been specified. The resources of a firm should be rare, valuable, inimitable, non-substitutable and organized (Barney, 1991; Barney, 1997). Competitive advantage can be sustained if a firm continuously invests in renewing its capabilities via new resource combinations (Penrose, 1959). Growth firms with low levels of profits are less likely to establish resource advantages than firms with high profits. Growth firms are unable to create superior value for their customers due to their inability to build a resource advantage at lower levels of profitability. To expand their business operations, growth firms have to bring a reduction in their prices or have to adopt costly marketing strategies in order to compete in the market. Firms in order to create more value than its competitors, must either produce greater benefits for the same cost or the same benefits for a lower cost. This approach of a firm is in accordance with the efficiency view of Resource-Based Theory (Peteraf and Barney, 2003). However based on this strategy a small firm cannot grow at an above average rates (Mishina et al., 2004), as these firms are mostly constrained by internal financing sources which makes it difficult for them to expand their products at lower profitability levels (Carpenter and Petersen, 2002). The external investors are reluctant to invest money in growth companies at lower profitability levels. Therefore, these firms with high growth and low profits face financial constraints and it becomes difficult for these firms to sustain its growth (Churchill and Mullins, 2001). Profitable firms have the financial resources to invest in developing products and strategies that are valuable to achieve sustained advantage (Sirmon et al., 2007; Zahra et al., 2006) and therefore high profitability. High profitability generates financial resources for a firm making it possible to attain sound and sustainable growth without sacrificing profits. The findings of Davidsson et al. (2009) showed that firms that grow at lower levels of profitability are unlikely to achieve high profitability as a result of their expansion. A firm is capable of exploiting new opportunities when it is well connected to external stakeholders who can provide access to a firm for additional resources (Wernerfelt, 1984). Firms in growth stages must
accumulated financial capital in order to survive and to fund the resources for development purposes (Starr and MacMillan, 1990; Dean and Giglierano, 1990).

Zhou et al. (2013) examined the performance of 105,260 firms from 2002 to 2011 in key sectors of Brazil, Russia, India, and China (BRIC). In the past two or three decades most firms in emerging markets arise after economic liberalization. In this study different trajectories were examined and conclusions were drawn from the experiences of 70 sustainable high-performing firms. The findings showed that profit-oriented strategy is more effective path for sustained profitable growth in emerging markets. It was concluded that sustained profitable growth requires competence-based and competence-enhancing growth, qualified sales growth (i.e., organic growth) and continuous product diversification.

3. Hypothesis Development

Firms grow by reinvesting their earnings (Downie, 1958). Firms that are more profitable are assumed to grow while firms that are less successful or are less profitable are assumed to lose market share. Profitable firms are in a position to gain competitive advantage either through the discovery of cost reducing innovations or by imitating the best practices of the industry (Coad, 2007). An above average profitability leads to a firm to a subsequent growth trajectory. The underlying assumption is the retained earnings. Retained profits are considered as the foremost source for financing the expansion of the firm. Based on above argument it can be hypothesized that:

\[ H_1: \text{A prior profit of a firm has positive impact on profitable growth in the subsequent years. Firms that embark on growth with low levels of profitability are not likely to sustain the growth} \]

Firms that sacrifices current profits for increased growth rate are in fact sacrificing a relatively steady stream of returns for a highly variable set of outcomes over time as growth rates are considered to be much more variable and idiosyncratic than profits. Predicting about the growth is a difficult job. The determinants of growth are regarded as highly firm specific and very variable over time. There are no temporary fixed factors that are be used to predict future growth rates and the firm specific differences in growth are not stable. The general assumption nowadays is that corporate growth rates vary randomly across firms and over time. Corporate growth rates are very variable and its variation is hard to predict. The growth rates determinants seem to be highly firm specific. To predict the growth of a firm is a difficult exercise as the firm specific differences in growth are not stable and there exist no temporally fixed factors to predict the future growth rates (Geroski et al., 1997). Cubbin and Geroski (1987) findings showed that in comparison to growth, profits are persistent over the long run.

Finance also plays an essential role in operations of a firm. The ability of the firm to pursue an optimal investment policy is constrained if it has limited or no access to external capital. This hinders the growth of the firm (Rahaman, 2011) and the ability to attain a level of high profits and high growth. The liquidity constraints are the serious obstacle to the growth of the firm (Carpenter and Petersen, 2002). Firms that have more external finances grow much more than low leveraged firms. Firms that have constraints in terms of external financing they grow less. Oliveira and Fortunato (2006) carried out a study over the period of 1990 to 2001 on Portuguese manufacturing firms to examine whether liquidity constraints faced by business firms affect firm growth. The findings
Jabeen and Shah showed that cash flow availability affects the growth of Portuguese small and young firms. These firms face financial constraints which limit their growth; therefore, they have a strong dependence on internal earnings. Dependency on internal earnings is only possible if the firm is generating profits. This further highlights the importance of profits. A firm should focus on generating profits in order to reach the state of profitable growth. The findings of Hurdle (1974) showed that leverage positively influences profitability. High debt leverage makes firms to decrease inefficient investment opportunities and raises firm performance. Based on above arguments it can be stated that:

$$H_2: \text{Profitable growth of the firm is positively affected by the amount of external financing. Increase in an amount of external financing helps a firm to reach a state of profitable growth}$$

The size of a firm affects its performance in many ways. Large firms in comparison to small firms generate superior performance. Large firms have the abilities to exploit the economies of scale and scope, have diverse capabilities, and the formalization of procedures (Penrose, 1959). The size of a firm that is profitable and growing increases as they reinvest their earnings by producing a reinforcement of capabilities of their business operations. On the basis of this argument it can be hypothesized:

$$H_3: \text{A positive relationship exists between profitable growth and size of the firm. Large firms in comparison to the small firms are assumed to be more profitable and growing}$$

Age of a firm is also considered as an important determinant of its performance variability. Steffens et al. (2009) analyzed firm’s age as the moderator on the relationship between firm profitability and growth. Young firms which are profitable and growing are associated not only with creating new jobs but also for local development, innovation and industry revitalization. Younger firms are assumed to grow faster (Harabi, 2003). Older firms have exploited their best growth prospects (Cubbin and Leech, 1986) and are unable to generate potentially profitable ideas worthy of investment. Older firms have little opportunity for growth as they operate in mature markets or because of managerial intransigence (Cowling, 2004). On the basis of this argument it can be hypothesized:

$$H_4: \text{Profitable growth of the firm is negatively affected by a firm’s age. Young firms are more profitable and growing than mature firm.}$$

4. Sample Framework and Data Sources

Sample of 71 non-financial firms included in Karachi Stock Exchange KSE 100-Index was selected for the period 2006 to 2011. The sample size of 71 firms was calculated on the basis of formula given below with \(N=100\). The value for “\(n_o\)” was determined by using the infinite population formula first.

$$n = \frac{n_o}{1 + \frac{(n_o - 1)}{N}}$$

The sampling adequacy was further verified by KMO (Kaiser-Meyer-Olkin) and Bartlett’s test. The study is mainly based on the secondary data collected from the financial statements of the companies listed at KSE.
4.1 Model Specification and the Variables:

Logistic regression borrowed from the work of Davidsson et al. (2009) is used to test the main hypothesis. The aim is to find out whether profit at initial stages of the firm determines profitable growth for the firm. Profitable growth is the dependent variable. The main independent variable is profit at initial stages of the firm. Firm’s size, firm’s age and leverage are included as the control variables. There are certain other variables that decisively affect the growth profit nexus. Firm’s size, firm’s age and leverage have been added to find out the extent to which the profitable growth of the firm is affected by these factors.

\[ \text{Profitable Growth} = \alpha + \beta_1 (\text{Profits at Initial Stages}) + \beta_2 (\text{Leverage}) + \beta_3 (\text{Firm’s Size}) + \beta_4 (\text{Firm’s Age}) + \epsilon \]

The dependent variable is profitable growth. This variable (profitable growth) is binary with values 0 and 1. The dummy value 0 is assigned to firms that are less profitable and growing and dummy value 1 is assigned to firms that are more profitable and growing. Profitability is measured by EBIT (Earnings before Interest and Tax) scaled by total assets. Numerous studies have used profitability variables scaled by total assets for measuring the profit levels in a firm (Novy-Marx, 2010). Growth is calculated by taking the yearly percentage change in total assets (Voulgaris et al., 2010). Size of the firm is measured by taking the natural logarithm of total assets (Chung and Pruitt, 1994; Hansen and Wernerfelt, 1989). Leverage is measured through total debt by total assets. Jang and Park (2011) analyzed the interrelationship between firm profitability and growth in the restaurant industry. They incorporated debt leverage as the control variable to test the relationship. They measured debt leverage by taking total debt by book value of total assets. Firm’s age is calculated by taking the natural logarithm of (current year – year in which the firm was established) (Harabi, 2003)

4.2 Sample Description

The data taken for the analysis is from the period 2006 to 2011. The average growth rate of the companies was calculated for the last three years. After calculating the average growth rate the firms were then sorted into two groups based on the median value of the growth. High growth firms were then classified into low and high profits based on the median of ROA (Return on Assets). Firms with high profit-high growth were assigned a dummy value 1; whereas dummy value 0 was assigned to firms with low profit-high growth. The data for the purpose of analysis has been taken from the financial statements.

5. Empirical Analysis

In this section, first the descriptive statistics are presented and then the problem of multicollinearity is checked among the variables followed by the analysis of the results of logistic regression.

5.1 Descriptive Statistics

Table 1 shows the descriptive statistics for variables such as profits at initial stages of the firm, leverage, firm’s size and age of the firm. The average of profit is 8.06%. The average firm’s size in terms of log of total assets is 15.4651. The average debt leverage is 60.54%. This figure shows high debt rate by the firms. The average value for age is 1.5721 which means that the average age of the firms is between 30 years to 40 years.
Table 1: Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROF</td>
<td>0.0806</td>
<td>0.1774</td>
<td>-</td>
<td>1.2286</td>
</tr>
<tr>
<td>FIRMSIZE</td>
<td>15.4651</td>
<td>1.8195</td>
<td>9.23</td>
<td>19.38</td>
</tr>
<tr>
<td>LEVRG</td>
<td>0.6054</td>
<td>0.3059</td>
<td>-1.54</td>
<td>2.17</td>
</tr>
<tr>
<td>AGE</td>
<td>1.5721</td>
<td>0.2134</td>
<td>0.9</td>
<td>1.82</td>
</tr>
</tbody>
</table>

Table 1 shows the mean, standard deviation, minimum and maximum values for all the variables. PROF represents the profits at initial levels of the firm. LEVRG stands for the leverage measured by total debt/total assets. FIRMSIZE stands for the size of a firm and it is measured by taking the log of total assets. AGE represents firm’s age which is measured by taking the log of (current year – year in which the firm was established).

5.2 Correlation Analysis for Dependent and Independent Variables

The correlation matrix shows that the problem of multicollinearity does not exist among the variables. The absence of multicollinearity was further determined through VIF (variance inflation factor).

Table 2: Correlation Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>PROF</th>
<th>LEVRG</th>
<th>FIRMAGE</th>
<th>SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROF</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEVRG</td>
<td>-0.1330</td>
<td>1</td>
<td>0.2689</td>
<td></td>
</tr>
<tr>
<td>FIRMAGE</td>
<td>-0.0010</td>
<td>0.0220</td>
<td>1.0000</td>
<td>0.8555</td>
</tr>
<tr>
<td>SIZE</td>
<td>0.2353*</td>
<td>-0.3065*</td>
<td>0.1433</td>
<td>1.0000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.0482</td>
<td>0.0093</td>
<td>0.2333</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level

5.3 Test of Individual Parameters

The contribution of individual regression coefficients was checked through Wald’s test. The findings showed the same results when an independent variable i.e. initial profits was added in the equation. It further confirms the significance of the model. After applying Wald’s test the model was further re-estimated by using step wise Forward Wald method. Same results were found when Forward Wald method was applied.
5.4 Analysis and Discussion on Logistic Regression Model Results:

The dependent variable was regressed separately on the independent variables for three different years i.e.; for 2006, 2007 and 2008. For all the three years the results showed the significant value for the variable profit at initial stages of a firm and insignificant values for firm size, leverage and firm age. This further confirmed the accuracy of the results. The rest of the details are provided below:

The table below shows the results of logistic regression model.

| PNG   | Coefficient | Standard Error | Z     | P>|Z|   | 95% Confidence Interval |
|-------|-------------|----------------|-------|-------|--------------------------|
| PROF  | 19.2289     | 6.6221         | 2.90  | 0.004 | 6.2499 - 32.2080         |
| FIRMSIZE | -0.2059 | 0.3495         | -0.59 | 0.556 | -0.8910 - 0.4792         |
| LEVRG  | 1.7447      | 2.4131         | 0.72  | 0.470 | -2.9849 - 6.4742         |
| AGE    | -0.5497     | 2.5244         | 0.22  | 0.828 | -4.3980 - 5.4973         |
| CONSTANT | -0.9937 | 6.3846         | -0.16 | 0.876 | -13.5073 - 11.5199       |

PNG is a binary dependent variable. It stands for profitable growth of a firm. The dependent variable is assigned a dummy value 0 for firms which are less profitable but growing and dummy value 1 for firms that are more profitable and growing. PROF represents the profits at initial levels of the firm. LEVRG stands for the leverage measured by total debt/total assets. Firm size stands for the size of the firm and it is measured by taking the log of total assets. AGE represents firm’s age which is measured by taking the log of (current year – year in which the firm was established)

The likelihood ratio chi square is 20.07 with a p-value of 0.0005. It shows that the model is statistically significant as the p value is less than 0.05. In likelihood ratio chi square the number in the parenthesis shows the number of degrees of freedom. The values of coefficients predict the dependent variable from the independent variables. These values are in log odds units. The coefficient for the variable profits at initial stages of the firm is 19.2289. This means that when other factors are held constant a one unit increase in independent variable i.e.; profits at initial stages of a firm will bring about 19.2289 increase in the log odds of the dependent variable (profitable growth). The significant value shows that the null hypothesis is rejected and the alternate hypothesis $H_1$ is accepted A profitable growth can be achieved if the firm has profits prior to embarking upon growth. This is in accordance with the findings of Davidsson et al. (2009). Their findings showed that firms that are profit-focused were in a better position to attain profitable growth than growth-focused firms. Firms with low levels of profits will move
to a state of low profits and low growth. High amounts of profits help a firm to reinvest their earnings (Downie, 1958) and to achieve profitable growth.

The findings further showed that firm’s size, leverage and firm’s age has no significant impact on the dependent variable. This is not in accordance with the formulated hypothesis. The relationship between firm’s size and leverage and profitable growth is positive insignificant and the relationship between firm’s age and profitable growth is negative insignificant. This shows that profitable growth of the firm is not affected by firm’s size, firm’s age and leverage. The only factor affecting the profitable growth of the firm is the profits at initial stages of a firm.

6. Conclusion, Limitations and Recommendations

The study investigated the relationship between profitable growth of a firm and profits at firm’s initial stages. The main theme of the study is that the recipe to better performance of a firm is profitable growth whereas the idea of growing first to secure future profits should be taken with vigilance. Firm’s size, firm’s age and leverage are included as the control variables. The purpose was to determine whether profits at initial stages help a firm in attaining a level of high profit and high growth. The findings showed that profitable growth can be achieved if a firm is profit-focused. However, the findings do not provide support for the impact of firm’s size, firm’s age and leverage on profitable growth of a firm. Firms that grow at low profitability levels are unlikely to achieve high profitability. It is in agreement to the findings of Davidsson et al. (2009). The findings of Davidsson et al. (2009) showed that firms with above average profitability and low growth were in better position to achieve a status of above average profitability and growth in comparison to firms with superior growth rates but low profitability. Firms that grow at the expense of profits end up in a state of low growth and low profitability in comparison to those firms that follow a profitable path of growth. Profitable firms already have a competitive advantage over their rivals. These firms can reinvest their profits and thus can lower the cost of capital needed to finance the expansion plans. Firms with low profitability and high growth are unable to build a sustained competitive advantage over its rivals. These firms successive expansion is on the basis of price cuts not on the basis of resource-based advantage that will in turn negatively affect their future profitability. Firms that are more profitable are assumed to grow while firms that are less successful or are less profitable are assumed to lose market share. Profitable firms are in a position to gain competitive advantage either through the discovery of cost reducing innovations or by imitating the best practices of the industry (Coad, 2007). Thus, it is can be concluded that firms that are profit-focused are more likely to reach a state of high growth and high profits.

The empirical examination in this study is limited to few independent variables; future research in this area can provide more additional input. In addition to an increase in number of variables the researchers might also contribute to the area of research by doing an analysis across different sectors of KSE 100-index.
Inter-Relationship between Initial Profits, Growth-Focused Firms and Profit-Focused Firms

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