Life Cycle Theory of Dividends: A Review of Literature

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ABSTRACT

Purpose: This study aimed at reviewing life cycle theory of dividends based on summarized empirical evidences provided in the previous studies.

Design/methodology/approach: The key theoretical and empirical studies on life cycle theory of dividends have been reviewed.

Findings: It has been found in the review that more attention needs to be given to the role of governance in the life cycle theory of dividends. Corporate governance indicators change with the life cycle stage of the firm and governance provisions are adopted based on firm characteristics. Furthermore, culture and investor protection vary across countries and their impact depends on firm life cycle. Thus, more flexible models should be designed to capture the role of individual governance measures in the pay-out policy based on firm characteristics, national culture and investor protection under life cycle theory of dividends.

Originality/value: Through this study, the role of culture and investor protection in life cycle theory of dividends has been emphasized and the necessity of considering such studies has been specified for researchers.

Limitations: Since the life cycle theory of dividends was the very focus of the current study, other theories of dividend policy have not been paid heed to. Paper type: Literature review

Keywords: Life Cycle Theory, Dividends Payments, Investor Protection, Corporate Governance

1. BACKGROUND OF LIFE CYCLE THEORY OF DIVIDENDS

Firms development depend on the available resources and factors that are beyond their control. For instance, firm's development depends on the resources such as financial resources, abilities of management, strategies chosen and macroeconomic factors. The concept of "life cycle" portrays various stages of growth, maturity and decline which has been refined and extended to several areas. Although being initially used in a biological context, the life cycle concept has been adapted in marketing as the product life cycle and in investment analysis as the industrial life cycle (Hasan et al., 2015; Van de Ven & Poole, 1995). Since, resources of firm vary depending on the life cycle therefore the life cycle may reflect the resources available to a firm. Life cycles of firm are deviations arising within the firm as it get mature resulting from the actions by the firm (Dickinson, 2011).

Porter (1980) detailed that investment becomes less attractive at mature stage of life cycle. "Maturity" meant that companies have high retained earnings coupled with high agency problems (Bulan & Subramanian, 2009). Previous studies document a foreseeable patterns in investment and financing decisions during different life cycle stages of a firm (Faff et al., 2016; Miller & Friesen, 1984). The decision of dividend payments is one of the trials for organizations in terms of market response. From 300 years ago, the practice of paying dividends have became

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one corporate financial behavior despite different economic nature (Frankfurter et al., 2003). Although, dividend has been explained using several theories but none of these theories could provide complete explanation of corporate pay-out behaviors (Coulton & Ruddock, 2011). Nonetheless, some evidence does support the prevalence of the life cycle theory. For instance, empirical evidence supports prevalence of life cycle theory of dividends in the US firms (Coulton & Ruddock, 2011; Denis & Osobov, 2008). Besides, dividend policy still remains a trial for organizations after several studies have been conducted on the testing of different pay-out theories (Coulton & Ruddock, 2011). Therefore, the logical questions arise as to why firms pay dividends and what are the reasons behind the cash dividends (Allen & Michaely, 2003; Myers & Bacon, 2004).

Similarly, life cycle theory of dividend has been recognized and improved by previous studies based on the findings by Fama and French (2001), Grullon et al. (2002) and DeAngelo et al. (2006). Life cycle theory of dividends is based on the idea that investment opportunities decrease with the increase of life cycle stage and firms are able to generate more cash at mature stage (Baker & Weigand, 2015). Therefore, firms at mature stage will be able to distribute their excess cash flows. Furthermore, Faff et al. (2016) posited that life cycle stage is inversely related to the investment, however, cash holding is higher at growth and introduction stage of firm life cycle. The overall idea behind the life cycle theory indicates a divergence to the signaling theory. For instance, signaling theory states that dividends are paid to signal high future growth whereas life cycle theory relies on the fact that the dividends are paid when growth prospects are no longer available (Anwar et al., 2016; Asquith & Mullins, 1986; Bulan & Subramanian, 2009; DeAngelo et al., 2006; Faff et al., 2016).

2. LIFE CYCLE THEORY OF DIVIDENDS: A REVIEW OF EMPIRICAL EVIDENCES

Empirical literature on life cycle theory of dividends relies on the notion that firms at early stage of their life cycle need to inject more capital to increase their growth opportunities. As the result, firms pay lower dividends, maintain low retained earnings to total equity ratio and face lower agency problems. On the basis of the research by DeAngelo et al. (2006), many of the later studies were in agreement that low retained earnings to total equity (RE/TE) ratio reflects growth firms, however, high RE/TE ratio reflects mature firms where retained earnings may get bigger in size due to low growth prospects at mature stage of life cycle (see, for example, Bulan & Subramanian, 2009; Chay & Suh, 2009; Coulton & Ruddock, 2011; Denis & Osobov, 2008; Wang et al., 2011).

Accordingly, Bulan and Subramanian (2009) postulated that most of the studies agree with the life cycle explanation of dividend pay-outs. For example, Baker et al. (2011) claimed that life cycle theory of dividends has been supported by few of the survey based research studies. The firm’s ability to generate cash increases with the increase of its life cycle stage. Hence, reaching the mature stage increased the company ability to generate cash internally which overtakes the ability to generate cash through investments. Thus, firms may increase their pay-out ratio and distribute more cash dividends at mature stage of life cycle (Coulton & Ruddock, 2011).

Likewise, Fama and French (2001) claimed that profitable firms have fewer growth opportunities pay higher dividends as compared to the firms that pay low dividend or pay no dividend. DeAngelo et al. (2006) measured life cycle stage by retained earnings to total equity and reported that firm having high retained earnings to total equity pay high dividends. Furthermore, the DeAngelo et al. (2006) maintain that signaling explanation of dividends is directly opposite to the life cycle explanation. Based on signaling theory of dividends, firms with low retained earnings to total equity might pay higher dividends to signal future growth whereas US firms that have high retained earnings to total equity have high cash dividends. Similarly, these results are also agree with the findings of the research as similar conditions
persist in the developed countries like Japan, Canada, Germany, France and UK (Denis & Osobov, 2008).

According to Coulton and Ruddock (2011), firms that pay dividends are larger with high profitability and low investment opportunities as compared to the non-paying firms. Furthermore, they claimed that the retained earnings to total equity increase the dividend pay-outs. Likewise, according to Faff et al. (2016), firms at early stage of life cycle tend to increase their debt as they get more investment opportunities and reduce their level of debt when they no longer have investment opportunities. This also supports the life cycle theory in those mature firms with low growth opportunities have lower debt serving capabilities as compared to the growing firms that gradually increase their debt based on the available investment opportunities (Faff et al., 2016).

On the same footing, Chay and Suh (2009) postulated that mature firms do have more cumulative profits with high retained earnings to total equity ratio and these firms may not need high capital infusion depending on their low growth opportunities as compared to the firms in the growth phase. Thus, firms might pay high dividends at maturity stage and low dividends at growth stage of their life cycle. Moreover, findings of the study by Chay & Suh (2009) supported the arguments that dividend paying behavior is positively related to the retained earnings to total equity in Australia, Japan, Germany, Canada, US, France and UK. Furthermore, Denis and Osobov (2008) posited that the dividend paying behavior is positively affected by the ratio of retained earnings to total equity in US, UK, Canada, Germany, France, and Japan. Abidin et al. (2011) found that the mature firms with high retained earnings to total equity pay have high dividend pay-outs. All these results support the existence of life cycle effect of the dividends in the developed equity markets.

Similar findings also have been reported in the developing countries. For instance, Thanatawee (2011) claimed that, based on the listed companies in Thailand from the year 2002 to 2008, the firms at mature stage have high profitability thus pay high dividends. Moreover, Fairchild et al. (2014) also supported the prevalence life cycle effects on the dividend pay-outs in Thailand. Likewise, Wang et al. (2011) studied the paying behavior of firms listed at Taiwan Stock Exchange from 1992 to 2007 and the findings of this study also supported the life cycle theory that mature firms pay higher cash dividends as compared to the young firms. Similarly, life cycle theory has been supported by findings of El-Ansary and Gomaa (2012) in Egypt and Hassani and Dizaji (2013) in Tehran. In addition, many survey studies also supported life cycle theory of dividends in developing countries. For instance, survey study by Baker and Powell (2012) supported life cycle theory of dividends in Indonesia, Baker and Kapoor (2015) in India and Baker and Jabbouri (2016) in Morocco.

Brockman and Unlu (2011) supported the life cycle theory of dividends by taking the sample from many developed and developing countries. Their results showed that cash dividend depends on retained earnings to total equity percentage around the world. Similar finding were reported by Al-Ajmi and Abo Hussain (2011) concerning the Saudi Arabian firms where larger firms are likely to maintain high dividend pay-outs and life cycle stages serving as the determinants of dividend payments. Although, results of the later studies support the life cycle theory, yet many emphasize on more flexible models which entail country wise disclosure and governance structures. Furthermore, findings of later studies emphasized on the agency based life cycle explanation of dividends which requires more investigation on the role of segregated governance measures in the life cycle theory of dividends.
3. WHAT IS THE ROLE OF GOVERNANCE IN THE LIFE CYCLE THEORY OF DIVIDENDS AND WHICH GOVERNANCE MEASURE MATTERS THE MOST?

There are various probable proxies to measure the corporate governance, however none of them is considered as “best” measure (Bhagat & Bolton, 2013). Previous studies have used three types of corporate governance measures. The first type used an index of anti-takeover provisions constructed by Gompers et al. (2001) and Entrenchment Index constructed by Bebchuk et al. (2009) as a measure of corporate governance. The second type adopted indices like the ones developed by Credit Lyonnais Securities Asia (CLSA), index used by Durnev and Kim (2005) and Klapper and Love (2004). In addition, corporate governance indices based on KCGS data also have been used by some of the previous studies (Black & Kim, 2012; Byun et al., 2012; Hwang et al., 2013; Lee & Park, 2009). However, corporate governance indices are also used based on the ISS (Institutional Shareholder Service) corporate governance data (Aggarwal et al., 2011; Chung et al., 2012; Nguyen et al., 2015; Pergola & Joseph, 2011). Koerniadi et al. (2014) constructed an aggregate corporate governance index and four sub-indices including sub index of board structures, autonomy and effectiveness, sub index of shareholdings and compensation policies, sub index of shareholder rights and sub index of disclosure policies.

The third type is those where individual measures of corporate governance have been used instead of aggregate corporate governance index. For instance, Bhagat and Bolton (2013) employed corporate governance by taking three individual governance measures; independence, director ownership and CEO duality. Moreover, their study suggested director ownership as a new measure of corporate governance which has fewer chances of measurement error and weighting problem as being simple. The stock ownership of directors has also been used in some other studies (Bhagat & Bolton, 2008; Bhagat & Tookes, 2012). Harford et al. (2012) used different corporate governance measures separately as proxy for corporate governance index. Gugler and Yurtoglu (2003) used five different proxies for corporate governance. These five proxies were: the percentage of voting rights of major investors, percentage cash flow rights of major shareholders, ratio of cash flow rights to voting rights of major investors, controlling cross-shareholding structure in the ultimate layer of pyramid and number of layers between the firm and the ultimate largest shareholders.

According to Bhagat and Bolton (2013), it is possible on economic and econometric grounds to use any single board characteristics as proxy for corporate governance instead of an aggregate index. Since the board has the authority to control or sometimes influence the decision making process, therefore, ownership interest of board members will create their interest to effectively monitor the management and corporate financial decisions (Bhagat et al., 2008). In addition, measures like board independence and director ownership can also work as good proxies of the corporate governance measures on econometric grounds (Bhagat & Bolton, 2013; Bhagat et al., 2008). Moreover, the measurement error associated with single governance measure can be less than the measurement error of the aggregate corporate governance indices. Similarly, problems associated with corporate governance indices are about the weights assigned to each measure in construction of the index. Equally, it is also difficult to accurately predict the weights that informed market participants may use in measuring the governance and thus there is the possibility that inappropriate interpretations may arise. Therefore, most of the studies prefer separate measures of corporate governance over aggregate index (Bhagat & Bolton, 2008, 2013; Bhagat et al., 2008; Brown & Caylor, 2004).

Given the details on the measurement issues of corporate governance, it is pertinent to consider these issues while investigating the life cycle explanation of dividends controlling the agency problems. Life cycle theory posits that agency problems are lower at growth stage and higher at maturity stage (Bulan & Subramanian, 2009). Notwithstanding, the large number of research studies on life cycle theory of dividends has overlooked one important part of it. O’Connor and Byrne (2015a) claimed that this part is about how governance structure changes with the life
cycle of firms (O’Connor & Byrne, 2015a). Using a governance-prediction model, O’Connor and Byrne (2015a) concluded that with the increase of life cycle stage of the firm, quality of governance also becomes better. Moreover, the growing firms that need debt have better governance mechanisms. However, such firms may not properly adopt corporate governance practices in those economies in which practicing better governance does not provide benefits more than the cost of adopting those governance mechanisms (Doidge et al., 2007). Filatotchev et al. (2006) drawn a framework that entails the concept that corporate governance indicator that may change with the life cycle stages of the firm since the wealth creation and wealth preservation functions of governance are required at different life-cycle stages. However, the governance quality may not remain the same at different stages of life cycle for all the governance indicators. Thus, the individual indicators of governance must be emphasized in the life cycle theory of dividends.

Several studies have concluded that dividends are the outcome of strong governance mechanism (La Porta et al., 2000; Mitton, 2004; Setia-Atmaja, 2010; Yarram & Dollery, 2015). It is based on the outcome hypothesis of La Porta et al. (2000) that dividends are the result of better governance mechanism which is in direct opposition to the substitution hypothesis with the assumption that dividends substitute the governance as alternative mechanisms. However, it is not clear what type of governance indicators are more important, whether collectively or individually that is related to the dividends (O’Connor, 2013). Individual governance provisions may not remain the same through the life cycle stages, therefore, a more flexible model needs to be built (Filatotchev et al., 2006; O’Connor & Byrne, 2015a). The wealth creation and protection functions of governance alter with the life cycle stages of the firm (Filatotchev et al., 2006). Likewise, Black et al. (2012) posited that firms are in need of different governance provisions at different phases of their life cycle and emphasized the flexible governance model which means that firms may adopt the governance strategy that suits their particular stage of life cycle.

Therefore, the question arises as to whether different governance provisions behave similarly in agency based life cycle framework of dividends or not? For instance, Chay and Suh (2009) discussed that firms with higher agency conflicts might pay lower dividends. Furthermore, they demonstrated that firms with lower insider ownership are likely to pay high dividends. Any firm with high insider ownership reflects the low level agency conflicts (Chay & Suh, 2009). Given the scenario, any firm with high insider ownership and high institutional ownership may behave differently in terms of dividend pay-outs. There are two kinds of approaches in this regard. The first approach is in line with the substitution hypothesis stating that dividends are substitutes for resolving agency conflicts. On the other hand, the second approach is in line with the outcome hypothesis stating that dividends are the outcome of better monitoring activities (La Porta et al., 2000).

Hence, the result of all previous discussion is based on the very fact that governance quality may vary in firms depending not only on their life cycle stage but also with their individual characteristics. For instance, structure of a firm indicates varying type of associations between governance and life-cycle stage of a firm. Moreover, as everything being equal, governance quality may become better for firm that need external sources of finance (O’Connor & Byrne, 2015a). Likewise, size may also play role in change pay-out policy as posited by Al-Ajmi and Abo Hussain (2011). Resultantly, a more flexible model that can addressed the agency based life cycle explanation of dividends needs to be built, however most of the studies have neglected this fact. These studies used commonly single aggregate index (which has its own measurement issues as discussed above) or sometimes focused on selected individual proxies incorporated in the agency based on life cycle explanation of dividends. On the other hand, more comprehensive models need to be tested in this framework to shape flexible models that can capture the dividend policy of firms by addressing the changing governance issues with the life cycle stage.
According to O'Connor and Byrne (2015b), corporate governance does not matter at all stages of the life cycle since it is not valued for the mature firms. The findings of O'Connor and Byrne (2015b) revealed that for mature firms, governance does not significantly affect their performance. Besides, it was also revealed that these are the resource/strategic governance functions that are rewarded but not the monitoring functions. These findings need to be scrutinized under the framework of life cycle theory of dividends. The firms at their mature stages only initiate dividend if premium is high (Bulan et al., 2007). For instance, future studies may consider different governance indicators under different life cycle stages to find out whether firms with different governance structures behave similarly in terms of their pay-out policies because premium attached with dividend initiation may vary based on their life cycle stage and the chosen governance structure.

Moreover, examination of life cycle theory by taking cross country data should be given high attention since national culture and investor protection may vary across countries. As indicated by the previous studies, culture significantly impacts the pay-out policy (Fidrmuc & Jacob, 2010; Shao et al., 2010; Zheng & Ashraf, 2014) and culture also varies along with the life cycle of the firms (Belak, 2016). Therefore, interaction of culture and life cycle stage may become the prospective of future research area. Likewise, investor protection may significantly alter the pay-out policy in the countries with strong or weak investor protection (Alzahrani & Lasfer, 2012). However, more explanation is required in the context of life cycle theory of dividends by examining the role of interaction of investor protection and life cycle proxies while determining the pay-out policies across countries. It may also become another future research domain.

4. CONCLUSION AND FUTURE RESEARCH DIRECTIONS

Researchers carefully documented the results of various studies conducted on the life cycle theory of dividends. Results from the previous studies are consistent with the life cycle theory, therefore, signaling explanation of dividend is becoming less important in the existing dividend literature. Based on the signaling theory, growth firms should pay higher dividends because they have abundant growth prospects to signal whereas most of the empirical literature supports the opposite situation where growth firms pay low or no dividend due to their need for capital infusion. Moreover, a few studies supported the agency based life cycle explanations of the dividend. Nonetheless, a little consideration has been given to the varying needs of corporate governance of the firms along the corporate life cycle and the agency based life cycle framework requires wide-ranging investigation by incorporating individual governance indicators.

A lot of research still needs to be conducted on the identification of appropriate proxies for corporate governance along with life cycle stages of firms. A clear line needs to be drawn among dividends, growth opportunities, expected future earnings and earnings retained. Furthermore, supposition of low agency problems may also be addressed by individually analyzing the governance indicators. For instance, it is unreasonable to assume that insider ownership and institutional ownership will behave similarly in terms of their role in life cycle theory of dividends. Furthermore, different governance indicators may not be treated similarly while analyzing the different research models. Despite the high agency problems, mature firms may also have better governance which eliminates the need for dividend as alternative governance measure. Furthermore, the country level corporate disclosure requirements also vary. Therefore, it should also become one of the future research areas regarding life cycle theory of dividends.
REFERENCES


