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Corporate Spin-Offs and Shareholders' Wealth: A Systematic Review and Future Research Agenda

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Abstract. The spin-off has become a common mode of restructuring in the corporate world for the last few decades and has thus attracted the interest of researchers to investigate how this form of divestiture creates value for shareholders. While there is an agreement among researchers about the wealth creation of spin-offs around the announcement of the event, the sources of this wealth generation remain controversial. Moreover, the long-run stock performance of the spin-offs invites debates, as there are varied shreds of evidence in this regard. The present study endeavours to provide an overview of the existing literature by systematically reviewing 89 theoretical and empirical works published between 1976 and 2021 on short-term and long-term wealth effects separately to provide state-of-the-art research on the topic concerned. Based on the findings of existing literature, certain suggestions for future research have been made.

Keywords: spin-off, corporate divestiture, stock prices, shareholder wealth, systematic review, demerger

JEL Classification: G14, G34

1. Introduction

Like in physical science where every action has an equal and opposite reaction, the corporate world also has a reaction for every action. The corporate action in the form of spin-offs (synonymous with demergers) is followed by the reaction on the part of the markets as a manifestation of change in stock prices, as evidenced empirically (Klein and Rosenfeld, 2010; Miles and Rosenfeld, 1983). Spin-offs provide a unique way for conglomerates to divest their business divisions. This restructuring strategy leads to the transfer of one or more divisions of a company to a newly formed or existing corporate entity. The shareholders of the original

company do not lose ownership in the spun-off entity, as the shares of the spun-off entity are distributed among them on a pro-rata basis (Krishnaswami and Subramaniam, 1999). This transaction does not lead to the generation of any cash flow and is generally tax-free (Gertner et al., 2002). Therefore, the distinctiveness of this form of corporate restructuring attracts attention and motivates researchers to gain insight into how this strategic move affects shareholders' wealth.

Spin-off has for long been a buzzword in the corporate community, as the giant business empires – in a bid to provide the best value to their investors – embrace this form of restructuring to streamline their complex business models. To what extent this divestment strategy has been successful to benefit the owners is worth knowing, and this knowledge can be attained by empirical investigation into the subject. In order to follow state-of-the-art research in a particular field of knowledge, a review of the relevant literature available on the subject is imperative (Snyder, 2019). As per the authors' knowledge, there is barely any study that provides an organized representation of the diverse literature on the reaction of the market to corporate spin-offs. Therefore, the present study endeavours to provide a systematic review of the wealth impact of shareholders in the context of spin-offs.

The study has considered all the theoretical and empirical works published from 1976 (as this marks the year in which the theoretical model was developed to show how spin-offs may create value for shareholders by expropriating wealth from bondholders) to October 2021. Also, some gaps have been identified in the existing literature, which provides the direction for future research.

The rest of the paper is organized as follows: section 2 outlays the research methodology followed for the selection of the pertinent research work, section 3 deliberates upon the theoretical and empirical substantiation of the subject matter, section 4 exhibits the conclusion of the study, section 5 underlines the limitations of the study, and section 6 highlights the gaps in the literature and proposes the direction for future research.

2. Research Methodology

A systematic review needs to delineate the criteria followed to include the study in or exclude the study from the review (Palmatier et al., 2018) and the choice of database (Kamboj and Rahman, 2015).

2.1. Inclusion/Exclusion Criteria

The study has taken into consideration the following parameters while selecting the articles for review:

2.1a. Time

The study chose the research works published since 1976, as this year marks the theoretical argument presented on how spin-offs can create value for shareholders through expropriating value from bondholders. The selected time frame, i.e. 1976–2021, presents the developments that have emerged in the selected area of research.

2.1b. Journal Articles

Only the articles published in peer-reviewed journals have been considered. Consequently, textbooks, conference proceedings, reports from government and non-government institutions, and student and doctoral dissertations have been excluded.

2.2. Database Selection

The articles to be included in the review have been retrieved from databases such as Emerald Insight, Elsevier (Science Direct), JSTOR, Springer, Sage, Taylor and Francis, and Wiley Online Library, following Adjei-Bamfo et al. (2019). The articles were searched using the words "spin off", "spin-off", "demerger", "shareholder wealth", "stock prices", "stock returns", "corporate restructuring", and "divestment".

2.3. Search Outcome

The preliminary search produced 169 articles. Out of these, 61 articles were dropped after screening the title and abstract, leaving a total of 108 articles. Further, full-text screening of the remaining articles was done to ensure that they fall in line with the theme of the review. This resulted in the further exclusion of 19 articles and left the final sample of 89 studies that met the criteria for inclusion in the systematic review (see *Figure 1*).

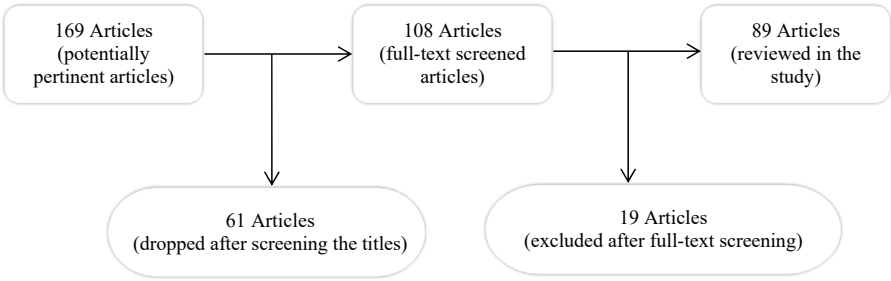

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Figure 1. *Flow chart of the article selection process for the review*

2.4. Geographical Distribution of Studies

Out of a total of 89 articles included in the systematic review, 74 are based on empirical studies that draw evidence on the impact of spin-offs on shareholders' wealth and the sources of this wealth generation. Most of these studies are grounded on evidence from North America (predominantly from the US), forming 82% of the total evidence-based studies (as evident from *Figure 2*), followed by Asia, which claims 6% of the sample studies. Europe and Africa contribute 4% each followed by Australia with 1% of empirical studies on the topic. There are certain studies that have reported a positive impact of spin-offs in samples based on multiple countries, and these form 3% of the total evidence-based studies.

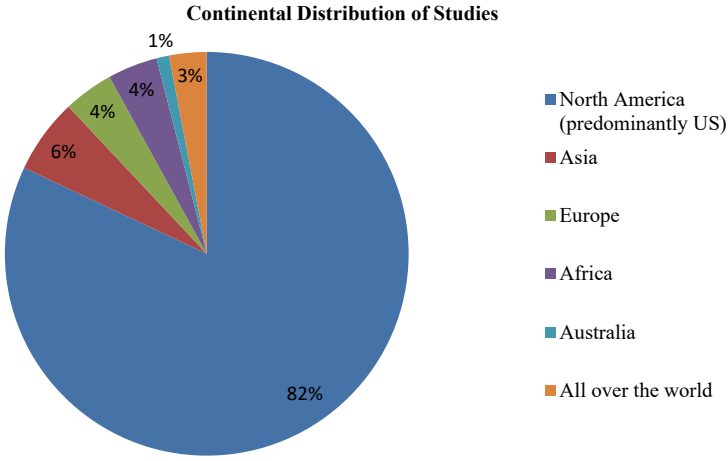

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Figure 2. *Continental distribution of studies based on the sample of the study*

2.5. Journal-Wise Distribution of Articles

The distribution of the articles on the basis of journals in which they are published is provided in *Figure 3*. As depicted in the figure, there are 42 journals that have published articles on the subject matter of this review study since 1976. The highest number of articles (16) is from the *Journal of Financial Economics* followed by *Strategic Management Journal*, *Journal of Corporate Finance*, and *The Journal of Finance*. These four journals have collectively produced more than 39% of the studies on the topic during the selected period of time for the study. The remaining 61% of the articles are widely dispersed among 38 journals, indicating the attention grabbed by the topic from a large number of journals.

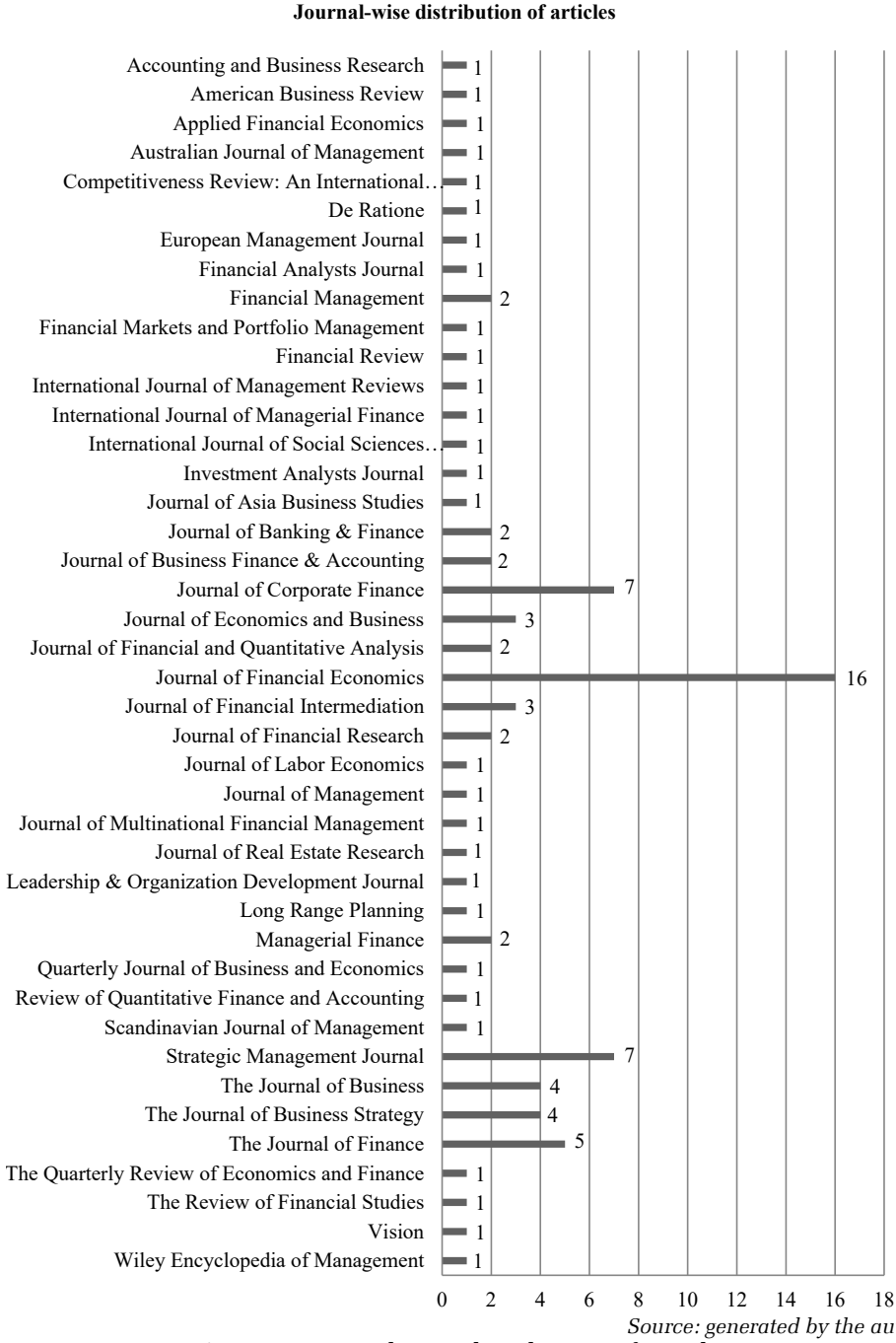

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Figure 3. *Journal-wise distribution of articles*

3. Theoretical and Empirical Evidence in the Appraised Studies

Divestment activities (including spin-offs) are escalating and form the major drivers of restructuring activities motivated by an urge to shed unrelated businesses, transformation in the competitive atmosphere, need to raise extra funds, and stress from shareholders among others (Deloitte, 2018). A good number of studies have been conducted to date to examine the reaction of the capital markets to the spin-off of companies. These studies are consistent in their conclusion that this form of corporate restructuring leads to the positive response of shareholders on the announcement of this event (Ball et al., 1993; Chai et al., 2018) but draw inconclusive substantiation to elucidate the sources of gains to the shareholders (Ahn and Denis, 2004; Chemmanur et al., 2014; Habib et al., 1997; Maxwell and Rao, 2003). Furthermore, whether spin-offs succeed in the creation of wealth for shareholders in the long-run periods is a debatable issue in the community of academicians (Chong et al., 2009; Cusatis et al., 1993; Murray, 2008; Veld and Veld-Merkoulova, 2004).

3.1. Spin-off Announcements and the Stock Prices

Diversification diminishes the value, and this diminution is more prominent in unrelated industry diversifications (Berger and Ofek, 1995). This loss in value can be regained by shedding unrelated businesses to improve the corporate focus (Comment and Jarrell, 1995). The positive abnormal returns around the spin-offs reflect the markets' confidence in the restructuring firm's ability to improve its performance (Bhana, 2004). A mass of studies has acknowledged the positive impact of spin-off announcements on stock prices all over the world (Blount and Davidson, 1996; Harris and Glegg, 2008; Parrino, 1997; Seifert and Rubin, 1989; Veld and Veld-Merkoulova, 2004) despite the variations in methodology, sample period, and the variables studied for explaining the gains to the shareholders (Burch and Nanda, 2003; Denning, 1988; Krishnaswami and Subramaniam, 1999; Slovin et al., 1995; Veld and Veld-Markoulova, 2008). Most of these studies come from the USA (Feng et al., 2015; Miles and Rosenfeld, 1983; Rosenfeld, 1984; Seward and Walsh, 1996; Wheatley et al., 2005), and, though comparatively small in number, studies from Europe (Murray, 2008; Veld and Veld-Merkoulova, 2004) and Asia-Pacific have also begun to emerge (Aggarwal and Garg, 2019; Chai et al., 2018; Padmanabhan, 2018).

The first empirical study to see the impact of spin-off announcements on stock prices was conducted by Miles and Rosenfeld (1983). The study was based on 55 companies in the USA that spun off their divisions from January 1963 to

December 1980. It was concluded that there is a positive influence of spin-off announcements on stock prices. Wealth generation of spin-offs is not limited around the announcement dates only, but the execution of the event also boosts the yield (Vijh, 1994). Nevertheless, there are few studies that have evidenced a temporary drop in the security prices of the spun-off unit (Brown and Brooke, 1993; Seifert and Rubin, 1989), and this drop is attributed to the transitory selling pressure created by institutional investors to rebalance their portfolio (Brown and Brooke, 1993). Shareholders benefit not only from domestic spin-offs (within the country spin-offs) but also from cross-border spin-offs, and the magnitude of the gains depends on the characteristics of the foreign market in which the subsidiary is operating (Harris and Glegg, 2008). Spin-offs generate gains not only for retail shareholders but for institutional investors as well, who are relieved from the trading constraints by being able to deal either in the parent or in the spun-off unit or in both, depending upon their investment objectives and requirements (Chemmanur and He, 2016). However, the increase in returns does not come alone and brings with it an increase in the volatility of the returns due to the loss of diversification effect and the increased instability of profits (Desai and Savickas, 2010; Huson and MacKinnon, 2003). Moreover, spin-offs are sometimes devised to segregate poorly performing divisions that pose a big challenge to the management of the spun-off firm (Wruck and Wruck, 2002).

A number of possible sources are identified by different studies regarding the gains resulting from spin-offs (Ahn and Walker, 2007; Allen et al., 1995; Chemmanur and Yan, 2004; Krishnaswami and Subramaniam, 1999; Maxwell and Rao, 2003; Wruck and Wruck, 2002). These can be categorized as improved industrial focus and elimination of negative synergies (anergy), expropriation of wealth from bondholders to shareholders, merger/takeover facilitation, tax and regulatory advantages, mitigation of information asymmetry, correction of previous mistakes (undo previous mergers or acquisitions), size of the spun-off unit, efficiency in capital allocation, and others.

3.1a. Industrial Focus and Elimination of Negative Synergies

The proponents of the focus hypothesis for the abnormal returns accompanying spin-off argue that highly diversified firms reduce the efficiency of management, thereby resulting in the poor performance of the division (Berger and Ofek, 1995; Bickner, 1989; Cox et al., 1992; Johnson, 1996; Lord and Saito, 2019; Schipper and Smith, 1983). The failure of the conglomerates to realize economies of scope through diversification paves the way for corporate focus (Comment and Jarrell, 1995). So, by separating unrelated business divisions, the management can concentrate on the business in which it has a specialization (Chemmanur and Yan, 2004; Daley et al., 1997; Gordon, 1992; Ito, 1995; Jain et al., 2011; Khaugani and Priscillah,

2020; Pearson, 1998; Semadeni, 2015). Hite and Owers (1983), Miles and Rosenfeld (1983), and Rosenfeld (1984) suggest that similarly to mergers that create value by capitalizing on synergies, spin-offs create value by eliminating anergies in unrelated operating divisions of a conglomerate. Moreover, conglomerates suffer from a diversification discount, which states that diversified companies are more under-valued than focused companies (Burch and Nanda, 2003; Fluck and Lynch, 1999; Nanda and Narayanan, 1999; Slovin et al., 1995), and therefore parting the unrelated units enables the firm to fix this problem (Ahn and Denis, 2004) and also attract pure-play investors who are interested in focused firms (Khan and Mehta, 1996).

Chemmanur et al. (2014) contend that the performance of the firms is improved after the spin-off, and this improvement is more pronounced in focus-increasing spin-offs (a spin-off of unrelated divisions) than in non-focus-increasing ones. The improvement is attributed to minimization in the cost of production. Similar results have been reported by Bhana (2004), Desai and Jain (1999), Johnson et al. (1996), Murray (2008), Veld and Veld-Merkoulova (2004), and Veld and Veld-Merkoulova (2009). The findings of these studies contradict the performance deterioration of the divested unit post-spin-off, as reported by Woo et al. (1992). Moreover, inconsistent with the previous studies, Huang (2014) highlights that it is the enhanced CEO experience-retained assets match that generates abnormal returns on conglomerate divestitures rather than the corporate focus.

3.1b. Expropriation of Wealth from Bondholders to Shareholders

Researchers have attempted to elucidate whether the shareholders' gains accompanying spin-offs are due to the loss to the bondholders. In other words, does the spin-off expropriate wealth from bondholders to shareholders? There is no single answer to this question. While some studies agree with the hypothesis that there is a transfer of wealth from debtholders to shareholders (Parrino, 1997; Murray, 2008), several others do not find any evidence to support this claim (Gertner et al., 2002; Hite and Owers, 1983; Veld and Veld-Markoulova, 2008; Dittmar, 2004). Maxwell and Rao (2003) validating the theoretical argument of wealth transfer from bondholders to shareholders by Galai and Masulis (1976) contend that spin-offs lead to the loss of collateral available to the bondholders in the form of assets transferred to the spun-off units and to the termination of coinsurance arising from the operations of different divisions that are not perfectly correlated.

Murray (2008) studied the spin-offs in an environment of bank debt and documented, although very limited, deprivation in the value of debt holders. The proponents of this expropriation hypothesis argue that spin-off is used as an instrument of disproportionate allocation of debt between the parent and the spun-off unit (Parrino, 1997), while its opponents propose that spin-offs increase wealth

by the optimal allocation of debt by the optimally levered pre-spin-off firms (John, 1993). Veld and Veld-Markoulova (2008) remark that bondholders have become vigilant following the Marriott case (Parrino, 1997) and place more restrictive covenants on shareholders to avoid the expropriation of wealth. Contrary to the pure spin-offs, spin-offs preceded by carve-outs report wealth gains not only for shareholders but for the bondholders as well, as carve-out proceeds add to the collateral available to bondholders (Thompson and Apilado, 2010).

3.1c. Merger/Takeover Facilitation

Spin-offs add to the wealth of shareholders by creating pure plays to attract potential bidders who are well-versed in creating value for the stakeholders (Chemmanur and Yan, 2004; Cusatis et al., 1993; Harris and Glegg, 2008; Hite and Owers, 1983; Johnson et al., 1996). In a theoretical model, Chemmanur and Yan (2004) proposed that spin-offs can lead to an improvement in the performance of the firm by being taken over by a more efficient rival firm. Even the threat of takeover following the spin-off can pressurize the management to work efficiently, thereby resulting in improved performance.

However, contrary to the studies that analyse spin-off as a facilitator of takeover, Chemmanur et al. (2010) considered the association between anti-takeover provisions (ATPs) and share price reaction accompanying spin-off announcement and found a positive relationship between the two. They contend that instead of using ATPs for boosting returns to shareholders, CEOs use them to secure themselves from being overthrown for their inefficiency. Harris and Madura (2010) observe that spun-off units with parents having anti-takeover provision adopt poison pills, which, although resulting in a negative response of the market in the short run, work to their advantage by improving their bargaining power in a takeover bid, leading to a positive impact on wealth over a long period of time. Further, Murray (2008) does not support the claim of superior stock returns around spin-offs in anticipation of takeover premium. Rather, an argument is made that it is the weak performance and lower subsequent valuation of the shares of the firms that make them attractive targets for the acquirers.

3.1d. Tax and Regulatory Advantages

The separation of a highly regulated operating division can relieve the parent company of the complex regulatory constraints and therefore lead to a positive response to the announcement of the spin-off (Hite and Owers, 1983). Spin-offs modify the contracts with various tax and other regulatory authorities, and if these modifications are in the favour of the restructuring firms, they will be accompanied by positive stock returns (Frank and Harden, 2001; Johnson et al., 1996; Veld and Veld-Merkoulova, 2009; Schipper and Smith, 1983).

3.1e. Mitigation of Information Asymmetry

Corporate unbundling increases the flow of information about the diversified firms' operations and mitigates the asymmetry in the information held by the internal and external stakeholders (Bergh et al., 2008; Bhana, 2004; Desai and Savickas, 2010; Habib et al., 1997). The advocates of this hypothesis claim that the share price of a multi-divisional firm gives a picture of its overall performance and does not provide insight into the individual performance of each unit, and therefore, by spinning off the units, the information regarding the operations of the separated divisions is made public, which makes their valuation easy (Chemmanur and Liu, 2011; Cox et al., 1992; Nanda and Narayanan, 1999).

Habib et al. (1997) provide a theoretical analysis of how spin-offs improve value by mitigating information asymmetries. They argue that spin-offs raise the quantity of securities merchandized, which improves the pricing mechanism, thereby making it more informative. Spin-offs improve the value and result in an increase in the wealth of shareholders by diminishing the asymmetries in the information about the performance of various divisions of a diversified firm. When traded separately, the operating performance and the growth potential of the individual units are clearly visible to the market, which is not possible under the consolidated firm (Krishnaswami and Subramaniam, 1999). The misvaluation or undervaluation of diversified firms (often referred to as "diversification discount") is due to the information asymmetry that arises because of the inability of the analysts to provide accurate forecasts of the firms' future prospects of performance due to their complex nature (Feldman, 2016); and this asymmetry is reduced by spin-offs, which make it easy for the analysts to provide more accurate forecasts of the separated firms (Feldman et al., 2014). However, Chemmanur and He (2016) and Huson and MacKinnon (2003) argue that information asymmetry is not only between the management and market but among the investor classes in the market as well. The institutional investors have an informational advantage over other investors due to which they earn superior returns around the spin-off execution (Chemmanur and He, 2016). Furthermore, spin-offs increase the disparity between informed and uninformed traders, insiders, and outsiders (Allen, 2001), and this informational disparity is more pronounced when the unrelated businesses are parted (Huson and MacKinnon, 2003).

3.1f. Correction of Previous Mistakes

The "correction of previous mistakes" hypothesis asserts that spin-off is the reversing of the previous unsuccessful merger and acquisition, and therefore the gains arising from the spin-off announcement reflect the expectations about the restoration of value destroyed due to unproductive mergers, acquisitions, or takeovers (Allen et al., 1995). Fluck and Lynch (1999) developed a theoretical model to expound

on why firms acquire and then divest subsequently. They theorize that when firms are incapable of funding their profitable business opportunities, a merger offers an avenue to finance them. However, conglomeration comes at a cost of anergy, which they referred to as "consolidation cost", and when these costs surpass the financial synergy gained by the merging, the appropriate strategy for these firms is then to divest them. Marquette and Williams (2007) investigated the overall wealth effects for firms that undertake two events: a takeover followed by subsequent spin-offs. They noted significant unfavourable returns on takeover announcements and favourable returns around the announcement of spin-offs. Nevertheless, the collective results depicted an insignificant effect on overall wealth. Finally, the study failed to conclude whether spin-offs of previously acquired firms create or destroy the wealth of shareholders. Schweizer and Lagerströmb (2020) explain spin-offs with a divorce metaphor by arguing that a spin-off is a corporate divorce that results from unsuccessful marriage (previous merger or acquisition). The failure of the firms to realize synergies expected at the time of the merger as well as the poor implementation ultimately lead to the separation of the consolidated partners.

3.1g. Size

Size is found to have a positive association with the stock returns around the spin-off announcement. The bigger the size of the unit spun-off, the greater is the gain of the shareholders (Johnson et al., 1994; Veld and Veld-Merkoulova, 2004; Veld and Veld-Merkoulova, 2009). In a survey of restructuring by British and German companies, Kirchmaier (2003) found that size has a bearing on the choice of strategic and structural change by the firms. Small firms show less inclination towards inorganic expansion or contraction than large ones. However, Woo et al. (1989) report contrary findings, that small spin-offs outdo the bigger ones.

3.1h. Completion or Withdrawal of Proposed Spin-Offs

All proposed spin-offs are not actually executed (Harris and Madura, 2011), and whether a proposed spin-off is executed or later withdrawn has an implication on the response of the market. While a few studies have shown a positive relationship between the completion of spin-offs and stock returns of the announcing firms (Veld and Veld-Merkoulova, 2004), some have evidenced the opposite results, i.e. spin-offs that are later withdrawn record more increased abnormal returns than those which are completed (Alli et al., 2001; Harris and Madura, 2011; Veld and Veld-Merkoulova, 2009). Harris and Madura (2011) investigated the reason for the withdrawal of the previously announced spin-offs and found that the market timing has an impact on the decision of the firms either to go for separation or to retract the proposal. The argument is that unfavourable industrial environment

and unattractive takeover market discourage spin-offs and hence increase the likelihood of withdrawal. Another reason could be that the management finds the earlier decision of separation inexpedient and accordingly corrects it by revoking the proposal (Alli et al., 2001). Furthermore, Chai et al. (2018) argue that completion or withdrawal has no influence on the return generation of spin-offs.

3.1i. Efficiency in Capital Allocation

The growth in the share prices subsequent to spin-offs has been reported to be associated with the efficiency with which the capital is allocated. McNeil and Moore (2005) document the inverse relation between spin-off returns and the efficiency with which the capital is allocated to the units to be divested, depicting the confidence of the market in the spin-off that this restructuring would improve the efficiency of capital allocation. They note that following spin-offs, firms with high growth opportunities increase their capital expenditure, while those with lower growth potential see a reduction in it, thus establishing that spin-offs lead to a better allocation of capital. These findings are similar to those of Ahn and Denis (2004), Ahn and Walker (2007), Gertner et al. (2002), Rovetta (2006), and Johnson et al. (1996). However, these findings are challenged by Çolak and Whited (2007). The argument presented is that although spin-offs are followed by improved investment allocation, the improvement in allocation is not because of an increase in focus due to spin-offs. The authors attribute the reported improvement by previous studies to measurement errors.

3.1j. Other Sources

Several other sources have been identified in the literature that have an impact on the performance of spin-offs. The age of top executives and their external directorships play an important role in the success of spin-offs in that young and fresh minds are ready to take risks, accept challenges, and embrace new ideas to lead the organizations to new heights, and experiences gained by being the director of some other organizations help them to compete in the challenging environment (Ozbek, 2020). Semadeni and Cannella Jr (2011) demonstrate the impact of the relation between the parent and the spun-off unit following spin-off on the post-separation performance of the divested unit. They maintain that a trade-off should be fixed between having the parent's excessive and negligible involvement in the spun-off unit. Other possible sources of gains to shareholders by spin-offs include equity incentives to executives (Feng et al., 2015) and effective corporate governance (Wruck and Wruck, 2002).

Nevertheless, the meticulous research with regard to the source of the confirmed gains is still deficient, keeping in view the diversity in the claimed sources, and therefore an issue of substantial deliberation.

3.2. Long-term Stock Price Performance of the Parent and the Spun-Off Unit

Research on the long-term impact of spin-offs on stock performance produces inconclusive evidence. While some studies claim that spin-offs result in the long-run outperformance of the concerned entities' stocks (Bhana, 2004; Chai et al., 2018; Desai and Jain, 1999; Rovetta, 2006), others rule out this statement by not finding any evidence in its support (Ball et al., 1993; Klein and Rosenfeld, 2010; Murray, 2008; Veld and Veld-Merkoulova, 2004). This inconclusiveness regarding the long-run stock performance of spin-offs makes it a debatable issue among researchers.

The first study to investigate the post-spin-off stock performance of companies was made by Cusatis et al. (1993). It reported significant positive abnormal returns for spin-offs, their parents, and the spin-off–parent combinations for the three-year post-spin-off period. Results suggested a direct relation between abnormal performance and returns for both spin-offs and parents involved in takeover activity, as the returns for the spin-off–parent combinations not involved in takeover activity showed insignificant abnormal performance. The explanation given for the reported results was that through spin-offs companies create pure plays to attract potential bidders who are well-versed in creating value for the stakeholders. The findings of this study were further corroborated by Feng et al. (2015) and Chai et al. (2018), who also evidenced superior returns, particularly for the focus-increasing spin-offs. Junge et al. (2021) propose that the post-spin-off attachment with the parent firm has an impact on the risk-taking behaviour of the spun-off unit, which has implications for its performance. In an attempt to test the claim of positive abnormal returns by spin-offs in the long run, McConnell et al. (2001) measured the returns against various benchmarks over different long-term horizons but failed to find any robust evidence to support the assertion of outperformance of returns following spin-offs. Similarly, Veld and Veld-Merkoulova (2004), after finding no superior returns in European spin-offs over a period of 3 years following spin-off, concluded that the European capital markets react efficiently to the information contained in the spin-off announcements. Additionally, Chong et al. (2009) report deterioration of wealth due to a decline in growth and profitability over an extended period.

3.3. Methodology Used to Determine Wealth Effects of Spin-Offs

An event analysis is performed to look at how the market responds to the spin-offs. A variety of expected return models that are divided into two groups – statistical models (such as the constant mean return model, market model, market-adjusted return model, industry-adjusted return model, and so on) and economic models (e.g. Capital Asset Pricing Model and Arbitrage Pricing Theory) – can be used to determine the abnormal returns associated with the event. However,

due to their complicated implementation and negligible practical advantage over statistical models, economic models are not employed to calculate expected returns (Campbell et al., 1997). For long-horizon event studies, the buy-and-hold abnormal returns (BHAR) model and Jensen's alpha approach (also known as the calendar-time portfolio approach) are the two most often employed models for assessing abnormal stock performance (Kothari and Warner, 2007).

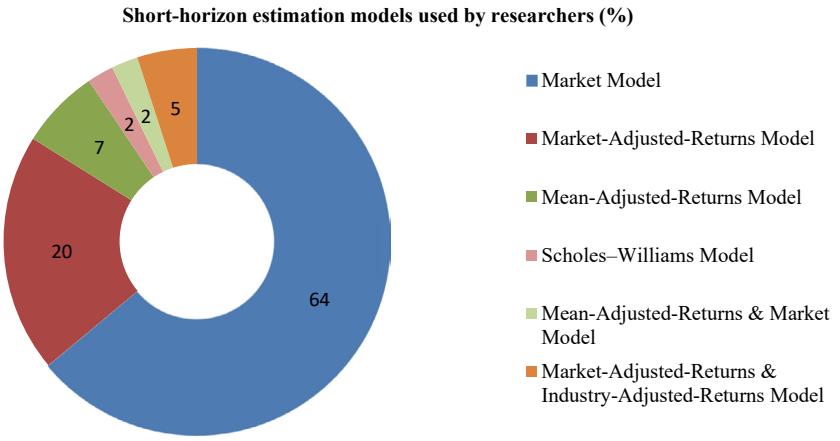

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Figure 4. *Short-horizon estimation models employed in the reviewed studies*

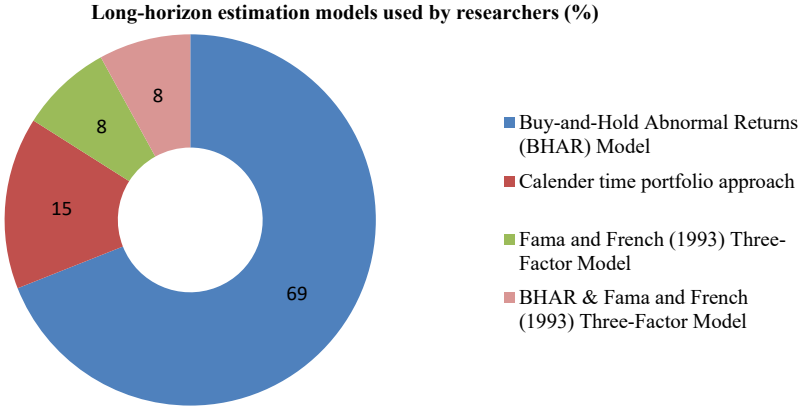

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Figure 5. *Long-horizon estimation models employed in the reviewed studies*

The various models adopted to identify the abnormal returns in the short- and long-horizon studies are shown in *figures 4* and *5* respectively. The market model, which was used by 64% of the studies analysed for this review, is the most

frequently employed model for return estimation in short-horizon studies, followed by the market-adjusted return model, the mean-adjusted return model, and the Scholes–Williams model, which were used by 20%, 7%, and 2% of the research articles respectively. Additionally, 7% of the studies used more than one model to assess how reliable their findings were. As far as long-horizon estimation models are concerned, BHAR is the most widely used model, followed by the calendar-time portfolio approach and the Fama and French (1993) three-factor model, which have been applied in 15% and 8% of the reviewed studies respectively.

4. Conclusions

This paper is aimed to review the existing literature on corporate spin-offs to specify what and how much we are acquainted with and what we still need to explore in order to enhance our knowledge about this significant form of restructuring. The reviewed studies confirm that spin-offs, irrespective of the markets (developed or emerging), lead to the creation of wealth for shareholders around the announcement of the event. The sources of wealth effects, as posited in the literature, are diverse and inconclusive. A number of determining factors of value creation have been studied such as merger or takeover facilitation, elimination of negative synergies and improved industrial focus, wealth expropriation from bondholders to shareholders, and so on. Of all the hypotheses claimed, the hypothesis of elimination of negative synergies and improved industrial focus has been widely supported. With regard to the long-term performance of spin-offs, there is inconclusiveness. While some studies demonstrate the stock outperformance of spin-offs in the long run, raising questions about the efficient market hypothesis, others support this theory by not finding any evidence of outshining returns from spin-offs over longer periods.

Against this backdrop, more research needs to be conducted to assist academicians as well as practitioners to gain more insight into this phenomenon and investigate how to make the best out of this restructuring practice while averting the drawbacks.

5. Limitations of the Study

The study, despite attempting to include all the relevant and reliable works on the chosen topic, has some limitations. Firstly, only the articles published in peer-reviewed journals were reviewed, which lead to the exclusion of other relevant works in this field. Secondly, an analysis of the available literature relevant for the selected period of the study showed that most of the research works pertain to developed economies, for instance, North America (predominantly the USA), and only a few studies can be traced in relation to developing economies.

6. Suggestions for Future Research

Research on the wealth effects of spin-offs in emerging economies is still in the infancy stage and needs further investigation. The confinement of the studies on the impact of corporate spin-offs to the US and Europe highlights a gap of deficiency in the current literature, which can be bridged by a deeper examination of the subject by conducting worldwide studies, particularly aimed at Asia-Pacific, to see whether their results can be extended to these markets as well or new insights might be gained. Furthermore, the explaining factors for the positive gains are non-exhaustive. What defines the gains in one market may not define the same in some other market. Therefore, a possible direction for future research could be to study the explanatory factors as posited in the current literature for further confirmation and also to attempt to find new factors, more appropriate for a particular market, which may pinpoint the gains (as is evident from Blount and Davidson (1996), where the spin-off is carried out not to attain financial advantages but in response to the changing political scenario, depicting the unique characteristics of the South African market). Further, the findings of Thomas (2002) suggesting that diversified firms do not suffer from a higher level of information asymmetry raise questions as to whether firms engage in spin-offs to mitigate asymmetry in the information. One more direction towards future research is the human aspect of the spin-offs. The separation from the parent could arouse a sense of refusal and desolation among the employees of the spun-off unit (Hoare and Cartwright, 1997), and thus the effect of the separation on employees and their performance can be explored. Also, spin-offs involve not only the restructuring of assets but the restructuring of the top management as well (Wruck and Wruck, 2002). Additional research needs to be conducted to understand the way management is structured in spin-offs and the impact of this structuring on the firms' performance. Moreover, the long-term wealth effect of spin-offs requires further insight, as there are mixed shreds of evidence in the present literature.

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