

Behavioral biases in trade credit policy: does it matter for financial performance?

Behavioral
biases in trade
credit policy

Umar Farooq

School of Economics and Finance, Xi'an Jiaotong University, Xi'an, PR China

Mosab I. Tabash

College of Business, Al Ain University, Al Ain, United Arab Emirates

Ahmed Abousamak

*College of Business, Al Ain University, Al Ain, United Arab Emirates and
Accounting and Auditing Department, Suez Canal University, Ismailia, Egypt, and*

Samar Habib

*College of Business Administration, American University in the Emirates, Dubai,
United Arab Emirates*

Received 2 October 2021
Revised 4 December 2021
27 December 2021
20 February 2022
Accepted 13 March 2022

Abstract

Purpose – Corporate firms often follow their peer firms to articulate multiple financial decisions. Among the others, trade credit policy is a vital financial decision that can impart its dynamic role in achieving financial efficiency. Therefore, the current analysis aims to assess the role of herding behavior in determining the trade credit policies of corporate firms and its relevant effect on corporate financial performance.

Design/methodology/approach – For this purpose, the financial data of 13089 nonfinancial sector firms from 50 countries are employed and the dynamic generalized method of moments (GMM) model to estimate the regression is applied.

Findings – The empirical findings first reveal that corporate firms actively mimic their peer firms regarding trade credit policies. However, this mimicking behavior hampers the financial performance due to noncompatibility with peers' trade credit policies. Peer firms often develop such trade credit policies that are not applicable to corporate firms.

Practical implications – Mainly, the findings of the study suggest two implications. First, it highlights the peer effect in terms of trade credit patterns. Second, it elaborates an adverse effect regarding financial performance due to herding of peers' trade credit policies.

Originality/value – This study adds new thoughts regarding herding behavior in terms of trade credit policy and its possible consequences for corporate financial performance. No study explores such a relationship.

Keywords Herding behavior, Peer effect, Trade credit policy, Corporate financial performance

Paper type Research paper

1. Introduction

This study primarily focuses on finding out the peer effect in terms of trade credit and its possible consequences regarding the financial efficiency. Corporate firms actively mimic their peer firms to formulate the variety of business decisions. Such firms are attended to follow the operational activities of peer firms due to information supremacy and decisional

JEL Classification — G39, G40

© Umar Farooq, Mosab I. Tabash, Ahmed Abousamak and Samar Habib. Published in *Asian Journal of Accounting Research*. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at <http://creativecommons.org/licenses/by/4.0/legalcode>



Asian Journal of Accounting
Research
Emerald Publishing Limited
2443-4175
DOI 10.1108/AJAR-10-2021-0179

expertise of peer firms (Porter, 1979). Normally, corporate firms mimic their peer firms to mitigate the of business instability, to meet the market competition and to follow those business policies that can enable bringing the maximum financial efficiency (Joo *et al.*, 2016). Other objectives include mitigation of cost of information asymmetry, building the investor confidence and eradication of business uncertainty. Based upon these anecdotal assumptions, this study revisits the peer influence in terms of trade credit pattern and stratifies the concept of herding behavior for this crucial decision of enterprises. Despite the positive influence, sometimes herding behavior overwhelmed the profitability of corporate firms due to noncompatibility with peer policies. While intensity of herding increases, it creates the operational complexities for corporate firms.

The strategic link between a peer firm trade credit policy and those of corporate firms can be understood through various channels. Theoretically, voluminous literature exists which stratifies the effect of peer firm policies on corporate business decisions (Leary and Roberts, 2014; Joo *et al.*, 2016; Anwar and Akhtar, 2018). The empirical outcomes of these studies suggest that a similar relationship can exist in terms of trade credit decisions. Furthermore, a recent study arranged by Gyimah *et al.* (2020) has explicitly inferred the significant effect of peer trade credit policies on corporate firms. The current study provides robustness regarding similar effects in alternative data specifications. Additionally, the findings of these studies explain per effect in terms of financing policies, capital investment behavior and cash saving attitude. Such activities alternatively relate with trade credit patterns to some extent. There exists a strong link between financing policies and trade credit decisions (Yang, 2011). Corporate firms having more secondary financing ultimately reduces the primary financing, i.e. trade credit. Similarly, herding behavior in terms of capital investment can change the trade credit pattern. Sometimes, corporate firms make short-term investments by extending the trade credit. More flow of funds in capital investment ultimately reduces the trade credit investment. Next, as mimicking exists in cash saving behavior which eventually decreases the credit sales as it hinders the saving of cash (Wu *et al.*, 2012), all these notions supplement the theoretical support to peer effect regarding trade credit decisions.

As a secondary source of financing, trade credit with its low financing cost advantages those firms that are stuck in financial distress (Ferrando and Mulier, 2013). It expedites the financial performance of financially distressed firms by offering an economical source of financing. Furthermore, it is necessarily needed for firms to enhance the trade credit volume to earn more profit. Corporate firms that are intended to widen their production activities can achieve their objectives by purchasing the voluminous raw material on credit. Similarly, the objective of high sale volume is attached to selling the goods at flexible trade credit policies. It can eliminate the hesitation of financially constrained customers who desire to buy more on credit. Furthermore, these activities can mitigate the extra operational cost and help in achieving the economy of scale which further pertains to positive financial performance (Abuhommous, 2017; Dary and James, 2019). However, due to an ambiguous business environment and insufficient business information, there exists a wide range of fluctuations to achieve the desired objectives (Lieberman and Asaba, 2006). This situation is more volatile in newly established or small corporate firms that have limited market information. In this situation, corporate firms prefer to imitate their peers' successful strategies to eliminate business uncertainty. Trade credit has a strategic association with business activities even in a single industry (Bams *et al.*, 2016). This factor motivates the corporate firms to follow their peers.

The research on mimicking behavior is not limited to the field of business, but its effects have also been widely discussed in sociology and economics (Ewijk and Slegers, 2010). The ambiguous business environment intrigues the corporate firms to mimic their peers. For this instance, the corporate firms are often interested to integrate with their revilers and competitors by imitating the firms that have a good market position. Moreover, to eradicate

the antagonistic actions, corporate firms follow their competitors which results in the elimination of a series of unproductive costs. This cut-off in cost enhances the profitability, stability and growth of firms. These factors motivate the researchers to study the effect of herding behavior on various corporate related decisions (Franco *et al.*, 2011). However, such herding behavior of corporate firms can deteriorate their financial efficiency due to different business models from peer firms. By following the aforementioned notions, this study tries to answer the following research questions:

- RQ1. Are corporate firms following their peer firms regarding trade credit policy?
- RQ2. What are the possible consequences in terms of financial performance due to this herding behavior?
- RQ3. How the trade credit pattern (both account receivable and account payable) of corporate firms affects their earnings?

The main consideration behind this study is to find the relationship between the peer's and corporate firm's trade credit policies and how this relationship determines the corporate financial performance. To analyze this relationship, we have collected the ten years of data of 13,089 nonfinancial sector firms from 50 economies and applied a dynamic GMM model to estimate the regression. We follow the random sampling technique for the selection of countries. Additionally, the selection of countries is subject to data availability. The empirical findings corroborate the existence of herding behavior regarding trade credit policies. It further suggests that this herding behavior diminishes the financial performance due to the irrelevance nature with the peer business model. In addition to these, the statistical results highlight the dynamic role of other firm-specific factors in determining corporate financial performance. This study adds new thoughts regarding trade credit herding behavior and suggests the hampering role of herding behavior in terms of financial efficiency. Furthermore, this study presents the dynamic outcomes of trade credit policies relative to corporate profitability. Mostly, the previous studies were just limited to herding behavior.

A recent study conducted by Gyimah *et al.* (2020) has empirically highlighted the peer influence on trade credit, but their study was limited to peer effect and did not respond to other questions, i.e. what will be the effect of this attitude on corporate financial performance. This study provides robustness and extends their analysis by quantifying the possible effect of this mimicking attitude on corporate financial performance. Our analysis first confirms the views of those researchers who stressed trade credit as an important determinant of firm financial performance (Martínez-Sola *et al.*, 2012; Yazdanfar and Ohman, 2016). It widened this concept by focusing on the mimic behavior of corporations. Prior studies mostly stressed on dynamic effect of trade credit on different business decisions. But it is still uncommon that whether corporate firms follow the trade credit pattern of their peers and what will be the possible effect of this attitude on their financial health. This study can be considered as early attempt to resolve such ambiguity.

As for concerning implications of the study, the findings of the study suggest to corporate managers that they should not blindly follow their peers specifically in terms of trade credit. Sometimes, there exist specific business objectives behind the trade policies developed by peers that are not applicable for corporate firms. Corporate managers should make deep analyses before following the strategies and should consider the specific business situation during which peer firms have developed such strategies. Sometimes peer firms may be in financial distress and can develop soft trade credit policies to instantly respond to this situation and to get more credit. In such a situation, they can offer high sale discounts to their customers to boost their cash inflow. If the corporate firms try the same and start to give discounts to their customers, it will cause the cost increment and depletion of profit volume of corporate firms. So, the managers should make unbiased analyses before the adoption of any strategy of their peers.

The rest of the paper is structured as follows: [Section 2](#) discusses the literature review, [Section 3](#) consists of data and methodology, and [Section 4](#) of the study describes the results of the study. [Section 5](#) concludes the whole discussion of the study. It also presents the future recommendations and limitations of the study. The reference detail is placed at the end of the paper.

2. Literature review

The peer effect can be defined as “the change in behavior and proceedings of corporate firms due to change in behavior of chosen reference firms” ([Patnam, 2011](#)). The emerging studies in the subject of finance and economics argued that peer firms play the key role in different types of corporate decisions ([Ferrando and Mulier, 2013](#); [Leary and Roberts, 2014](#); [Joo et al., 2016](#); [Anwar and Akhtar, 2018](#)). An array of studies target the different topics and examined the peer effect on corporate decision making such as those of [John and Kadyrzhanova \(2008\)](#) have examined the peer effect on corporate governance, those of [Leary and Roberts \(2014\)](#) investigated the effect on capital structure, those of [Bizjak et al. \(2008\)](#) noted the effect of peers on mergers and acquisitions, and those of [Li et al. \(2014\)](#) suggested the effect on tax avoidance. These studies argued that dynamics of corporate firms’ decisions adhered with those of peer firms. In spite of detailed literature on herding behavior, it is still unknown that how mimicking attitude of corporate firms in terms of trade credit alters their financial performance. This study considered this instant need and tried to highlight the possible consequences regarding the financial performance of corporate firms due to mimicking the trade credit policies of peer firms.

The managers of corporate firms induced their efforts in accordance with peer firms. Their motivation behind following their peers is to mitigate the possible imperfection of business decisions ([Popadak, 2019](#)). On the contrary, the study conducted by [Kaustia and Rantala \(2015\)](#) argued that corporate firms were unable to derive any benefit by mimicking their peer firms. They have noted that the corporate firms may mimic the stock splitters, but no benefits occurred due to this mimicking. The study arranged by [Foucault and Frésard \(2013\)](#) investigated the pattern of financial investment of enterprises which was in accordance with their peers. They have argued that the investment policy of corporate firms depends upon the stock price volatility of peers. Similarly, [Hoberg et al. \(2014\)](#) have argued that the investment decision of corporates in R&D adhered with peers because corporations struggled to enhance their product quality by more investing in research and development. The findings of these studies strengthen the concept of mimicking behavior of corporations in multiple decisions. So, a similar relationship can be hypothesized in terms of trade credit.

H1. Peer firms’ trade credit pattern has a significant effect on corporate trade credit.

The economies where secondary source of financing is comparatively costly, firms try to fulfill their financing needs through trade credit. The firms also prefer it when other types of funds are not available in enough quantity, and funding gaps remain unfilled ([Cuañat, 2007](#)). [Fisman and Love \(2003\)](#) linked the utilization of trade credit financing with firms’ financial stability and document that the firms that used more trade credit have rapid growth. Specifically, this effect can be more pronounced in such economies that have less developed financial sector. This notion was also later supported by [Farooq et al. \(2018\)](#). Another empirical study conducted by [Boissay and Gropp \(2007\)](#) suggested the link between trade credit and firm performance. They have documented that the firms that are confronted with more liquid position can acquire more trade credit from their suppliers. The firms can also enhance their trade credit by offering more goods on credit to their customers. [Abuhommous \(2017\)](#) suggested that the firms facing vulnerable positions can increase their sustainability by enhancing trade credit. They have also noted that the firms

with voluminous trade credit in the form of account receivable have more profitability. Ferris (1981) has noted that the firms can boost their product demand in the period of demand recession, and it also helps to minimize the cost of holding the inventory due to rapid sale. These studies stimulate to analyze the peer effect in terms of trade credit as it affects the firm financial performance.

The linkage between peer effect, trade credit and firm profitability can be explained through different trade credit theories. Transaction cost theory suggested that the firms enhanced their profit volume by mitigating the cost of the transaction. This transaction cost relates to bank financing which is eliminated in terms of trade credit (Emery, 1984). The liquidity theory of trade credit explained that the firms which are more in financial distress use more trade credit to sustain their profitability (Ferris, 1981). But, when corporate firms herd their peers' trade credit policy, their liquidity increases as more funds are stuck in receivables. The price discrimination through trade credit theory reveals that the firms offered more trade credit instead of bank financing because trade credit may be used for price discrimination. This technique is useful in a highly competitive market and during sale declining periods (Soufani, 2002). But this phenomenon becomes adverse when firms imitate their peers. Corporate firms cannot discriminate the cost as peer firms can do. Similarly, the theory of social learning and competitive rivalry theory explicitly explained mimic behavior of corporate firms. The social learning theory suggested that the firms learn or mimic their peers in the period of uncertainty and information asymmetry (Bikhchandani *et al.*, 1998). Corporate firms become more social to assess reliable information. The competitive rivalry theory explained that the firms follow the actions of their peers to impede the unfair competition and to follow the competitive strategies (Peteraf, 1993). The theoretical notions of these theories explained the herding behavior in terms of trade credit.

In literature, normally the relationship between trade credit and profitability has been segmented into two parts, that are, of trade credit on profitability (Martínez-Sola *et al.*, 2014) and profitability as a determinant of trade credit (Kim, 2016). This study considers the effect of trade credit on profitability regarding the mimic behavior of corporations. The previous studies have suggested the significant relationship between the trade credit and profitability (Kestens *et al.*, 2012; Yazdanfar and Ohman, 2016; Dary and James, 2019), but how the mimic behavior of corporations affect this relationship is not common in literature. The research on mimic behavior of corporates is emerging in the literature of finance (Ferrando and Mulier, 2013; Leary and Roberts, 2014; Chen and Hui, 2017), and this trend has attracted the attention of research community to explore the mimicking behavior in other corporate decisions. Furthermore, previous studies focused on dynamic effect of peers on corporate investment decisions (Chen and Hui, 2017), on financial policy (Leary and Roberts, 2014), on growth rate (Ferrando and Mulier, 2013) etc. But, it is still unknown that how peer firms' trade credit policies influence the corporate financial performance. This study extends the literature on trade credit policy of peers as a determinant of corporate profitability by examining the mimic behavior of corporations. Peer firms always designed their trade strategies according to their business models, e.g. they can offer more goods on credit due to high financial pace and longer maturity date of trade credit contracts (Gyimah *et al.*, 2020). Thereby, mimicking such trade credit activities by corporate firms can create an extra layer of stress for corporate firms due to low financial reserve, and thus can hamper their financial efficiency. In view of such theoretical explanation, the underlying relationship can be hypothesized as follows:

- H2. Peer's terms trade credit pattern has a negative and significant effect on corporate financial performance.

3. Data and methodology

3.1 Data description

This study follows the deductive approach of research and analysis based upon secondary data. Sample size consists of ten years of data (ranging from 2007 to 2016) of 13,089 nonfinancial sector firms from 50 economies. The firms from financial sector were excluded due to nonavailability of trade credit. Next, the firms having financial observation less than five years for specific variable were excluded from the sample because existence of such firms may result in biased analysis. The standard industrial code (SIC) classification was used to segregate the industries. The industrial classification has been defined in Table A3. As for concerned data source, financial information of companies was obtained from Thomson Reuters Data Stream [1]. This data source has been repeatedly used in a number of finance and economics studies published in well-reputed journals. The data availability statement comprises [2].

3.2 Variables of the study

Firm profitability is used as a dependent variable and measured by four ratios including return on assets (ROA), return on equity (ROE), net profit margin (NPM) and Tobin's q (TQ). These proxies have been frequently used by other researchers to measure firm profitability (Abuomous, 2017; Dary and James, 2019). Return on assets is calculated as earnings before interest and tax (EBIT) to total assets, and ROE is measured as EBIT/total shareholder equity. Similarly, TQ is measured as total debt plus market capitalization divided by total assets, and NPM has formula of net sales over total income. The objective behind the inclusion of various proxies of firm profitability is to make the analysis comprehensive and to find the robustness. A set of control variables including firm size (FS), leverage (LVG) and growth of firm (GR) were also included in the analysis. Firm size was measured as a log of sale, leverage quantified as total debt to total assets and growth of firm was calculated as current year sales minus last year sale divided by current year sales. A series of studies has suggested the impact of these variables on trade credit and firm profitability (Babalola and Abiodun, 2013; Yazdanfar and Ohman, 2016; Gyimah *et al.*, 2020). Further, trade credit is used as an independent variable and segregated into two ratios, that are account receivable and account payable, and measured as account receivable divided by total assets and account payable divided by total liability relatively (Vaidya, 2011; Ferrando and Mulier, 2013). The measurement of peer firms is based upon systematic techniques proposed by Leary and Roberts (2014). The trade credit policy of peer firms was calculated by excluding the specific firm and taking the average of remaining firms. For the calculation of peer firms, we take the average of residual firms left after the exclusion of specific firms relating to a specific industrial classification. Additionally, we also exclude the specific year for which peer effect is to be measured. This measurement exemplifies the trend of peer firms in a specific year. A brief description of these variables has been given in Table 1 (available online at: https://docs.google.com/document/d/1w4cyB8_wDBWxyKykl5NGyDSTzqFsONCn/edit?usp=sharing&oid=106149622860931771032&rtopf=true&sd=true).

3.3 Econometric models

$$AR_{ijt} = \beta_0 + \beta_1 ARP_{-ijt} + \beta_2 LVG_{ijt} + \beta_2 FS_{ijt} + \beta_3 GR_{ijt} + \epsilon_{ijt} \quad (1a)$$

$$AP_{ijt} = \beta_0 + \beta_1 APP_{-ijt} + \beta_2 LVG_{ijt} + \beta_2 FS_{ijt} + \beta_3 GR_{ijt} + \epsilon_{ijt} \quad (1b)$$

$$ROA_{ijt} = \beta_0 + \beta_1 AR_{ijt} + \beta_2 AP_{ijt} + \beta_3 ARP_{-ijt} + \beta_4 APP_{-ijt} + \beta_5 AR_{ijt} \times ARP_{-ijt} + \beta_6 AP_{ijt} \times APP_{-ijt} + \beta_7 LVG_{ijt} + \beta_8 FS_{ijt} + \beta_9 GR_{ijt} + \varepsilon_{ijt} \quad (2)$$

Behavioral
biases in trade
credit policy

$$ROE_{ijt} = \beta_0 + \beta_1 AR_{ijt} + \beta_2 AP_{ijt} + \beta_3 ARP_{-ijt} + \beta_4 APP_{-ijt} + \beta_5 AR_{ijt} \times ARP_{-ijt} + \beta_6 AP_{ijt} \times APP_{-ijt} + \beta_7 LVG_{ijt} + \beta_8 FS_{ijt} + \beta_9 GR_{ijt} + \varepsilon_{ijt} \quad (3)$$

$$NPM_{ijt} = \beta_0 + \beta_1 AR_{ijt} + \beta_2 AP_{ijt} + \beta_3 ARP_{-ijt} + \beta_4 APP_{-ijt} + \beta_5 AR_{ijt} \times ARP_{-ijt} + \beta_6 AP_{ijt} \times APP_{-ijt} + \beta_7 LVG_{ijt} + \beta_8 FS_{ijt} + \beta_9 GR_{ijt} + \varepsilon_{ijt} \quad (4)$$

$$TQ_{ijt} = \beta_0 + \beta_1 AR_{ijt} + \beta_2 AP_{ijt} + \beta_3 ARP_{-ijt} + \beta_4 APP_{-ijt} + \beta_5 AR_{ijt} \times ARP_{-ijt} + \beta_6 AP_{ijt} \times APP_{-ijt} + \beta_7 LVG_{ijt} + \beta_8 FS_{ijt} + \beta_9 GR_{ijt} + \varepsilon_{ijt} \quad (5)$$

Where the econometric equation, Eq (1a) and (1b) specifies the peer influence on corporate firms, likewise, Eqs (2)–(5) indicate the impact of corporate and peer trade credit policies on corporate financial performance. These equations also include the control variables. In these equations, ROA presents the return on assets, ROE is the abbreviation of return on equity, and NPM shows the net profit margin. The TQ shows the abbreviation of Tobin's q which is a systematic measurement of firm performance. These proxies are used for the quantification of firm profitability and for robustness check. Next, AR is for account receivable, AP is for account payable of corporate firms, but account receivable of peers (ARP) and account payable of peer firms (APP) represent the peer firm's trade credit. The LVG, FS and GR show the three control variables, that are, leverage, firm size and firm growth, respectively.

3.4 Methodological discussion

The objective of the study is to find out the effect of peer firm trade credit policy on corporate firms and how this effect changes the financial efficiency of corporate firms. To achieve the objective, we have started our analysis from the baseline econometric technique for the panel data named fixed effect model (results of this model have been shown in Table A2). However, the statistical results of the Wald Test (shown in Table 2 (available online at: https://docs.google.com/document/d/1w4cyB8_wDBWxyKykl5NGyDSTzqFsONCn/edit?usp=sharing&oid=106149622860931771032&rtopf=true&sd=true)) suggest the existence of an endogeneity issue. The significant probability values of restriction terms imply the acceptance of alternative hypothesis, i.e. error term is correlated with explanatory variables. To eradicate the endogeneity problem, we have applied the dynamic GMM model to estimate the regression. This econometric technique has the capacity to treat the problem of endogeneity and gives unbiased results. We have fixed the cross-section as Petersen (2009) has suggested the significance of the implication of fixed effect. He has vowed that fixed effects produced more appropriate and unbiased results. Further, the fixed effect was applied because firms were selected from different sectors of multiple countries which may cause the problem of heterogeneity. Additionally, the output of the Hausman test also confirms the validation of fixed effect.

4. Results

4.1 Descriptive statistics

Table 3 (available online at: https://docs.google.com/document/d/1w4cyB8_wDBWxyKykl5NGyDSTzqFsONCn/edit?usp=sharing&oid=106149622860931771032&rtopf=true&sd=true) provides the information about descriptive statistics of variables used in this study. ROA which is representative of firm profitability has a mean value of 0.066. The under-

analysis firms have a 6.6% utility percentage over their assets. The median value is 0.066 or 6.6% which represents the common earning ability of most firms. The maximum and minimum values present both ends (upper and lower). These values argue that no firm earns more than 0.794 and does not fall from -0.858 in their earning capacity. The standard deviation is 0.077 or 7.7% which exhibits the flexibility or degree of change in net response. The corresponding values of variables (reported in Table 3) illustrate the responses of variables according to specific numeric values. But the notable factor in this table is that corporate firms respond just like their peers in terms of trade credit. Rows 6 and 8 of Table 3 provide supportive evidence on this notion. The value of the account receivable of peer firms is 0.208 or 20.8%, and the value of the account receivable of corporate firms is 0.207 or 20.7% which is the same as the peer firm's value. The same trend can also be viewed in the case of account payable. Both corporate firms (0.233) and peer firms (0.231) have almost the same degree of account payable. These values support the assumptions that corporate firms follow the trade credit policy of their peers.

4.2 Correlation matrix

Table 4 (available online at: https://docs.google.com/document/d/1w4cyB8_wDBWxyKykl5NGyDSTzqFsONCn/edit?usp=sharing&oid=106149622860931771032&rtpof=true&sd=true) reports the correlation analysis and addresses the strength of association among the variables of the study. Panel 2 of Table 4 depicts the correlation coefficients between ROA and its subcomponents (ROE, NPM and TQ) that were used as proxy indices for firm profitability. ROA has a correlation coefficient with their other components as 0.571 (ROE), 0.658 (NPM) and 0.316 (TQ) relatively. The ROA and NPM have high coefficient values as compared to ROE and TQ. These values suggest the degree of association among proxies of firm profitability. The AR and AP have correlation values as 0.019 and 0.011, relatively. Both the factors positively correlate with firm performance, but these criteria become opposite in the case of peer firms (-0.025 and -0.073). The trade credit policy of peer firms negatively relates to corporate profitability. Firm size (FS) and growth (GR) have also positive correlation values as 0.118 or 11.8% and 0.254 or 25.4%, respectively but leverage has a negative correlation with ROA and the strength of this adverse adherence is -0.088 or 8.8%. The overall correlation coefficients are normally distributed (have average correlation values, i.e. 0.70) which reject the existence of multicollinearity. The next section expresses the regression analysis.

4.3 Regression analysis

The statistical outcomes presented in Table 5 (available online at: https://docs.google.com/document/d/1w4cyB8_wDBWxyKykl5NGyDSTzqFsONCn/edit?usp=sharing&oid=106149622860931771032&rtpof=true&sd=true) stratify the effect of peer trade credit policies on corporate trade credit patterns. The numerical values of *t*-stat (shown in $[\]$) and *p*-stat (shown in $()$) indicate the significant and positive effect of ARP and APP on AR and AP of corporate firms, respectively. This significant relationship is in line with statistical findings of the recent study arranged by Gyimah *et al.* (2020). They have analyzed the US firms but this study relates with nonfinancial sector firms of different economies. Corporate firms always try to follow their peer firms to reduce their strategical failure, and to follow the successful strategies of their peer firms. Additionally, such mimicking behavior may enhance their market reputation due to aligning their business model with successful peer firms. They follow their peer firm's business strategies in order to reduce the failure risk and other operational risks regarding basic business operations. A plethora of studies have suggested the significant association between peer and corporate firms' business movements (Bizjak *et al.*, 2008; Li *et al.*, 2014; Gyimah *et al.*, 2020). In addition to the empirical literature, the

theoretical description of social learning theory also vows that corporate firms always learn from their industry peer groups. Table 5 responds the first research question, i.e. significant effect of peer on corporate trade credit policies.

Table 6 (available online at: https://docs.google.com/document/d/1w4cyB8_wDBWxyKykl5NGyDSTzqFsONCn/edit?usp=sharing&ouid=106149622860931771032&rtpof=true&sd=true) presents the outputs of the GMM model applied to mainly estimate the relationship between peer firm trade credit policies and corporate financial performance. The results show that the AR has significant and positive t -statistic values (4.349, 3.687 and 2.643) with all the proxies (instead of NPM) which have an insignificant relationship of corporate financial performance. The firms that relaxed their trade credit policies have more financial benefits because such firms can enjoy the high sale volume, large customers and high sales rates (Abuhomous, 2017). Such firms can enjoy more profitability because economies of scale in production and more sale volume stem from credit sales. A study of Wu *et al.* (2012) has suggested the similar relationship between trade credit and corporate financial performance. The other proxy of trade credit is an account payable which has a significant but negative relationship with ROA (−4.637) and ROE (−3.544). The study arranged by Yazdanfar and Ohman (2016) noted that the firms that have more AP must bear low profitability because more burden of AP put the firms to more unstable condition and made the firms less efficient. Additionally, high AP volume depicts the extensive volume of liabilities and thus can damage the market reputation of firms which has negative spillover regarding profitability. Likewise, Row 4 of Table 6 reveals the relationship between the ARP and corporate financial performance. The statistics show that ARP has a significant and positive t -value with all proxies (5.672 with ROA, 4.688 with ROE, and 2.348 with TQ relatively) of corporate financial performance except NPM (−0.640) which has an insignificant relationship. ARP which is an account payable for corporate firms has favorable effects on corporate financial performance because when the peers extend their AR terms then corporate firms may enjoy credit easiness. Peer firms soften their AR terms toward corporate firms which create the financial flexibility for corporate firms. Additionally, it creates relaxation to repay back to their peers. This factor provides the credit easiness to financially constrained corporate firms (Musamali and Tarus, 2013). This ease of repayments results in more profitability for corporate firms (Yousaf, 2013).

As extending the discussion, APP has a negative adherence with firm performance. It has a significant and negative relationship with ROA (−2.106) but has a positive relationship with TQ (6.452). When the APP, that is, AR for corporate firms become delayed then corporate firms may face more financial distress which harms their profitability (Kumar and Shrivastava, 2013). As shown in Table 6, when corporate firms try to mimic their peer firms regarding AR policy (AR*ARP), it results in negative financial performance (−1.839). The coefficient sign of AR*ARP with TQ shows that when corporate firms try to mimic their peers in terms of AR then they lose their profitability. This effect is due to high information asymmetry between corporate and peer firms. The peer firms may extend their AR because they have high capital reserves and resistance to shocks, but corporate firms must decide their own AR policy according to their financial health. The same criteria exist in terms of account payable. The mimicking behavior of corporate firms in terms of AP may deplete profitability. The t -value of AP*APP shows that the mimicking behavior has a significant but negative relationship with NPM (−1.818). Such a relationship is not specified directly in any study, but the study of Gyimah *et al.* (2020) somehow mirrors this relationship.

The other determinants of firm profitability that are FS, GR, and LVG have a similar relationship as suggested by previous studies. The firm size has a significant and positive relationship with ROA, ROE and NPM but negative relationship with TQ. The study of Babalola and Abiodun (2013) argued that larger size firms have more profitability because such firms enjoy the low-cost benefits, high sales volume and more access to cheap financing.

But the study of [Valeiras et al. \(2016\)](#) opposed this narration and vowed that larger size firms may have low profitability due to low-profit margins on sales. The GR has a positive and significant effect on all the proxies of corporate profitability. The higher the growth, firms enjoy more profitability because such firms have more innovative attitudes which led to more financial success ([ÇOBAN, 2014](#)). In the end, the LVG has negative and significant regression with ROA (-49.321), ROE (-44.648) and NPM (-42.446) but a positive relationship with TQ (11.672). Firms that preferred more debt financing must bear the fixed cost of interest. Moreover, due to high leverage, the volatility of firms increases which depletes the firm profitability ([Yousaf, 2013](#)). But debt financing may be beneficial in case of high information asymmetry caused by acquiring more equity financing. This high information asymmetry enhances the agency cost and thus firms preferred more leverage. The findings of the study quantified the relationship between corporate mimicking behavior in terms of trade credit and their effect on corporate financial performance.

Briefly, the analysis vowed the significant effect of peer firms on trade credit policy of corporate firms which is in line with theoretical notions of social learning theory. However, the empirical findings infer that corporate firms should not herd the trade credit policies of their peer firms because it can hamper their financial efficiency due to different business models.

5. Conclusion

The study aims to find out the effect of corporate herding behavior regarding trade credit policy of peer firms on their financial efficiency. We have employed a dynamic GMM model to estimate the predicted research model. The statistical outputs of this model, first, imply that corporate firms actively follow their peer firms. But as statistical values reveal, this herding behavior mitigates their financial performance. So, it can be suggested that corporate firms should not copy their peer firms in terms of trade credit policy because it results in low profitability. The literature is in favor of mimicking behavior because corporate firms cannot perform in isolation and indeed try to follow their peer firms that have more useful information, financial experts and more market approach. But the current study vows that corporate firms should not blindly imitate their peers because it causes biases in decision makings. They should develop their own business strategies such as trade credit policy due to different business models from peer firms. Corporate firms should develop their own trade credit patterns according to their ability to respond to credit shocks.

The study has highlighted the emerging issue in the field of corporate and behavioral finance that how the mimicking behavior of corporate firms affects their trade credit policy which further determines the corporate financial performance. By employing a large range of data from 50 countries, this study offers a new idea as corporate firms should not imitate their peer firms because it hampers their profitability. The results of the study properly answer the research questions and the objective of the study has been achieved.

5.1 Implications and future research

The findings of the study imply that corporate managers should not follow the trade credit policy of peer firms because results show the adverse effects. They should formulate their own trade credit policy because peer firms designed their trade credit policies according to their capital reserve, the capacity of resistance to fluctuation and high sale volume objectives which are not suitable for small corporate firms. The managers should only exercise adherence but not herding because adherence may allow them to find the space for more business opportunities. Theoretically, this study enriches the prevailing literature by

extending the discussion of peer effect on the financial efficiency of corporate firms. This study corroborates the theoretical notions of social learning theory. Furthermore, as for concerning the policy implication, this study suggests the direct trade credit policy to corporate managers that they should deliberately establish their own trade credit pattern instead to rely on others. However, the current analysis is limited as it does not provide the trend of individual countries regarding the trade credit peer effect on corporate financial performance. Each country might have separate arrangements of business and thus distinguishing trends regarding trade credit pattern. In future, the more comprehensive studies can be arranged by enumerating the other factors such as the macroeconomic condition of a country which can moderate the imitating behavior of corporate managers.

Notes

1. <https://data.imf.org/?sk=F8032E80-B36C-43B1-AC26-493C5B1CD33B>
2. The statistical analysis based upon firm-specific data that are available at Thomson Reuters Data Stream. It is a public site which provides the data on monetary subscription.

References

- Abuhommous, A.A.A. (2017), "The impact of offering trade credit on firms' profitability", *The Journal of Corporate Accounting and Finance*, Vol. 28 No. 6, pp. 29-40.
- Anwar, M.M. and Akhtar, M.R. (2018), "Do peer firms impact corporate investment policies?", *Pakistan Journal of Commerce and Social Sciences*, Vol. 12 No. 1, pp. 363-378.
- Babalola and Abiodun, Y. (2013), "The effect of firm size on firms profitability in Nigeria", *Journal of Economics and Sustainable Development*, Vol. 5 No. 4, pp. 90-96.
- Bams, D., Bos, J. and Pisa, M. (2016), *Trade Credit: Elusive Insurance of Firm Growth*, s.L., Maastricht University, Graduate School of Business and Economics (GSBE), Maastricht.
- Bikhchandani, S., Hirshleifer, D. and Welch, I. (1998), "Learning from the behavior of others: conformity, fads, and informational cascades", *Journal of Economic Perspectives*, Vol. 12 No. 3, pp. 151-170.
- Bizjak, J.M., Lemmon, M.L. and Naveen, L. (2008), "Does the use of peer groups contribute to higher pay and less efficient compensation?", *Journal of Financial Economics*, Vol. 90 No. 2, pp. 152-168.
- Boissay, F. and Gropp, R. (2007), *Trade Credit Defaults and Liquidity Provision by Firms*, ECB Working Paper No. 753.
- Chen, S. and Hui, M. (2017), "Peer effect in decision-making: evidence from corporate investment", *China Journal of Accounting Research*, Vol. 10 No. 2, pp. 167-188.
- Çoban, S. (2014), "The interaction between firm growth and profitability: evidence from Turkish listed manufacturing firms", *The Journal of Knowledge Economy and Knowledge Management*, Vol. 9 No. 1, pp. 73-82.
- Cuñat, V. (2007), "Trade credit: suppliers as debt collectors and insurance providers", *The Review of Financial Studies*, Vol. 20 No. 2, pp. 491-527.
- Dary, S.K. and James, H.S. (2019), "Does investment in trade credit matter for profitability? Evidence from publicly listed agro-food firms", *Research in International Business and Finance*, Vol. 47 No. C, pp. 237-250.
- Emery, G. (1984), "A pure financial explanation for trade credit", *Journal of Financial Quantitative Analysis*, Vol. 19 No. 3, pp. 271-285.
- Ewijk, R.v. and Slegers, P. (2010), "The effect of peer socioeconomic status on student achievement: a meta-analysis", *Educational Research Review*, Vol. 5 No. 2, pp. 134-150.

-
- Farooq, U., Malik, J.A. and Muhammad, L. (2018), "The impact of banking sector development on capital structure of non-financial sector firms in Pakistan", *Journal of Accounting and Finance in Emerging Economies*, Vol. 4 No. 2, pp. 177-188.
- Ferrando, A. and Mulier, K. (2013), "Do the firms use the trade credit channel to manage the growth?", *Journal of Banking and Finance*, Vol. 37 No. 8, pp. 3035-3046.
- Ferris, J.S. (1981), "A transactions theory of trade credit use", *The Quarterly Journal of Economics*, Vol. 96 No. 2, pp. 243-270.
- Fisman, R. and Love, I. (2003), "Trade credit, financial intermediary development, and industry growth", *The Journal of Finance*, Vol. 58 No. 1, pp. 353-374.
- Foucault, T. and Frésard, L. (2013), "Learning from peers' stock prices and corporate investment", *Journal of Financial Economics*, Vol. 111 No. 3, pp. 554-577.
- Franco, G.D., Kothari, S. and Verdi, R.S. (2011), "The benefits of financial statement comparability", *Journal of Accounting Research*, Vol. 49 No. 4, pp. 895-931.
- Gyimah, D., Machokoto, M. and Sikochi, A. (2020), "Peer influence on trade credit", *Journal of Corporate Finance*, Vol. 64, pp. 1-24.
- Hoberg, G., Phillips, G. and Prabhala, N. (2014), "Product market threats, payouts, and financial flexibility", *The Journal of Finance*, Vol. 69 No. 1, pp. 293-324.
- John, K. and Kadyrzhanova, D. (2008), *Relative Governance*, Working paper, University of Maryland.
- Joo, C., Yang, I. and Yang, T. (2016), "Peer group effect in firm cash holding policy: evidence from Korean manufacturing firms", *Asia-Pacific Journal of Financial Studies*, Vol. 45 No. 1, pp. 535-573.
- Kaustia, M. and Rantala, V. (2015), "Social learning and corporate peer effects", *Journal of Financial Economics*, Vol. 117 No. 3, pp. 653-669.
- Kestens, K., Cauwenberge, P.V. and Bauwhede, H.V. (2012), "Trade Credit and Company performance during the 2008 financial crises", *Accounting and Finance*, Vol. 52 No. 4, pp. 1125-1151.
- Kim, W. (2016), "Determinants of corporate trade credit: an empirical study on Korean firms", *International Journal of Economics and Finance*, Vol. 6 No. 2, pp. 414-419.
- Kumar, P. and Shrivastava, A. (2013), "Trade credit and corporate profitability: some empirical findings in Indian context", *Journal of Management Value and Ethics*, Vol. 3 No. 3, pp. 41-56.
- Leary, M.T. and Roberts, M.R. (2014), "Do peer firms affect corporate financial policy?", *The Journal of Finance*, Vol. 69 No. 1, pp. 139-177.
- Li, L., Winkelman, A.K. and D'Amico, J.R. (2014), "Peer pressure on tax avoidance: a special perspective from firms' fiscal year-ends", *Journal of Accounting and Finance*, Vol. 14 No. 6, pp. 171-188.
- Lieberman, M.B. and Asaba, S. (2006), "Why do firms imitate each other?", *Academy of Management Review*, Vol. 31 No. 2, pp. 366-395.
- Martínez-Sola, C., García-Teruel, P.J. and Martínez-Solano, P. (2012), "Trade credit policy and firm value", *Accounting and Finance*, Vol. 53 No. 3, pp. 791-808.
- Martínez-Sola, C., García-Teruel, P.J. and Martínez-Solano, P. (2014), "Trade credit and SME profitability", *Small Business Economics*, Vol. 42 No. 3, pp. 561-577.
- Musamali, M.M. and Tarus, D.K. (2013), "Does the firm profile influence financial access among small and medium enterprises in Kenya?", *Asian Economic and Financial Review*, Vol. 3 No. 6, pp. 714-723.
- Patnam, M. (2011), *Corporate Networks and Peer Effects in Firm Policies*, s.l.: s.n.
- Peteraf, M.A. (1993), "The cornerstones of competitive advantage: a resource-based view", *Strategic Management Journal*, Vol. 14 No. 1, pp. 179-192.
- Petersen, M.A. (2009), "Estimating standard errors in finance panel data sets: comparing approaches", *The Review of Financial Studies*, Vol. 22 No. 1, pp. 435-480.

- Popadak, J. (2019), "Dividend payments as a response to peer influence", *Journal of Financial Economics*, Vol. 131 No. 3, pp. 549-570.
- Porter, M.E. (1979), "The structure within industries and companies' performance", *The Review of Economics and Statistics*, Vol. 61 No. 2, pp. 214-227.
- Soufani, K. (2002), "On the determinants of factoring as a financing choice: demand analysis", *Journal of Economics and Business*, Vol. 54, pp. 239-252.
- Vaidya, R.R. (2011), "The determinants of trade credit: evidence from Indian manufacturing", *Modern Economy*, Vol. 2 No. 5, pp. 707-716.
- Valeiras, E.L., Conde, J.G. and Rodriguez, T.F. (2016), "Firm size and financial performance: intermediate effects of indebtedness", *Agribusiness An International Journal*, Vol. 32 No. 4, pp. 454-465.
- Wu, W., Rui, O.M. and Wu, C. (2012), "Trade credit, cash holdings, and financial deepening: evidence from a transitional economy", *Journal of Banking and Finance*, Vol. 36 No. 11, pp. 2868-2883.
- Yang, X. (2011), "Trade credit versus bank credit: evidence from corporate inventory financing", *The Quarterly Review of Economics and Finance*, Vol. 41 No. 4, pp. 419-434.
- Yazdanfar, D. and Ohman, P. (2016), "The impact of trade credit use on firm profitability: empirical evidence from Sweden", *Journal of Advances in Management Research*, Vol. 13 No. 2, pp. 116-129.
- Yousaf, S. (2013), "Impact of financial leverage on firm' s performance: a case of cement production industries of Pakistan", *International Journal of Management Sciences and Business Research*, Vol. 6 No. 1, pp. 98-105.

Further reading

- Deloof, M. (2003), "Does working capital management affect profitability of Belgian firms?", *Business Finance and Accounting*, Vol. 30 Nos 3-4, pp. 573-587.
- Salim, M. and Yadav, D.R. (2012), "Capital structure and firm performance: evidence from Malaysian listed companies", *Social and Behavioral Sciences*, Vol. 65, pp. 156-166.
- Tobin, J. (1969), "A general equilibrium approach to monetary theory", *Journal of Money, Credit and Banking*, Vol. 1 No. 1, pp. 15-29.
- Umer, U.M. (2014), "Determinants of capital structure: empirical evidence from large taxpayer share companies in Ethiopia", *International Journal of Economics and Finance*, Vol. 6 No. 1, pp. 53-65.

Appendix

Appendix is available online at: <https://docs.google.com/document/d/13oNqRmUO2A5g134xvxNjgHojUYGa054n/edit?usp=sharing&ouid=106149622860931771032&rtpof=true&sd=true>.

Corresponding author

Umar Farooq can be contacted at: umerrana246@gmail.com

For instructions on how to order reprints of this article, please visit our website:

www.emeraldgrouppublishing.com/licensing/reprints.htm

Or contact us for further details: permissions@emeraldinsight.com