

## SMEs Fintech Financing: Does Board Governance Matter?

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**Abstract:** The purpose of this study is to examine the board governance factors that influence a small and medium enterprise's (SME's) decision toward fintech financing. A structured questionnaire survey of 90 Malaysian SMEs was used and the data analyzed using the Heckman selection model and the marginal effect model. The results demonstrate that SMEs' female board members, family board members, and the duality of their CEOs have a significant influence on their decision to obtain financing from fintech platforms. Professional services provided by experts have a negative influence on their decisions to engage in fintech financing. The SMEs' board size, the length of their chairmen's service, and non-family board members are negatively related to their decisions to apply for financing. The more male members that were on the board, the more likely the SME was to choose to apply for external financing during the survey year.

**Keywords:** fintech financing, apply finance, CEO duality, board structure

**JEL Classification:** G32, G39

## Introduction

SMEs play a significant role in the Malaysian economy, contributing 36% to national GDP in 2016 and employing more than four million people. The SMEs' contribution to GDP was expected to grow to 41% by 2020. However, the main challenge to the SMEs' ability to grow and increase their productivity is poor access to capital and financing. Most of their capital and financing are obtained from banking institutions, followed by the Development Financial Institution, Bank Negara, Malaysia's Funds and Government Funds. Compared to publicly listed companies, SMEs are much smaller; they have insufficient collateral and the lack of information disclosures by them increases the chances of their financial applications being turned down.

Despite the importance of SMEs to the nation's economic development, they still face financial constraints. Many small firms report access to finance, or the cost of finance, as major obstacles to their growth (Bloom, Mahajan, McKenzie & Roberts, 2010). Unlike large and publicly traded firms, SMEs have limited or no access to certain types of external financing, such as long-term debt or issuing equity (Uyar & Guzelyurt, 2015). It is generally acknowledged that their inability to access bank loans could be due to high collateral requirements, high interest rates, and the lack of a relationship with bankers (Uddin, 2014). There is no doubt that SMEs face an increasingly large number of constraints and have less access to formal sources of external finance, thus accounting for their limited growth potential (Saidia, Ayodele, & Maxwell, 2021; Wahab & Abdesamed, 2012).

The rapid growth of financial technology (fintech) is aimed at tackling this problem and is important in boosting SMEs. This financing platform includes the equity crowdfunding (ECF) framework, Investment Account Platform (IAP), and peer-to-peer (P2P) lending. Fintech financing can reach under-served SMEs, mainly because the company does not have to meet the requirements of a bank's credit assessment. Indeed, advances in fintech lending have started to change the way consumers and small businesses are financed (Jagtiani & Lemieux, 2018). Recent facilities help reduce the cost and time taken to access funding, complementing conventional banking facilities in supporting financing for SMEs' growth at different stages. Demand for fintech financing is expected to increase in the future (Ivashchenko, Britechenko, Dyba, Polishchuk, Sybirianska & Vasylyshen, 2018) and fintech financing platforms are becoming economically relevant for financing SMEs (Cornelli, Davidson & Frost, 2019). However, even with this alternative form of financing, corporate governance through the board of directors has a significant influence on SMEs' financing decisions. This research examines the use of fintech financing by SMEs with financial constraints, and the influence of corporate governance on these financing methods. It is based on field surveys of Malaysian SMEs, employing a self-administered questionnaire. The study is expected to identify the SMEs' preference for seeking fintech

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financing, and the influence of corporate governance factors such as the board's size, the frequency of board meetings, and the financial literacy of the board. The findings will provide evidence for policy makers to further design and strengthen corporate governance, to enhance the SMEs' growth.

Widespread research has investigated capital structures and corporate governance. However, less attention has been given to them in the context of SMEs, as most of the prior research has focused on corporate governance and SMEs' performance. In recent years, there have been numerous studies which looked at the obstacles SMEs face in accessing financing (Akther, 2022; Khan, Siddique, Sarwar, Minh Huong, & Nadeem, 2020; Lussuamo & Serrasqueiro, 2020), but they have mainly focused on bank loans. There has been limited research into financing through online platforms. To the best of the researcher's knowledge, few studies have examined corporate governance and financing among SMEs, in terms of fintech, as most have tended to focus only on its adoption (Hu, Ding, Li, Chen, & Yang, 2019). Hence, this study is motivated by the need to bring new evidence to the field, with an in-depth investigation of the effect of board governance and the use of fintech financing among Malaysian SMEs. This issue is critical, given the important role of SMEs in contributing to the Malaysian economy.

Lately, regulators and policymakers around the world have expanded their concerns to address the issues of gender equality in the boardroom. Hence, a growing literature is starting to explore the economic benefit of board gender diversity on firm performance (Ahern & Dittmar, 2012; Solakoglu & Demir, 2016; Green & Homroy, 2018), corporate decisions (Miller & Triana, 2009; Rossi, Cebula, & Barth, 2018), and risk-taking behavior (Adams and Funk 2012). However, the relationship between women's representation and the use of debt financing in SMEs, especially with fintech financing, has scarcely been studied.

## **Literature Review**

The issue of corporate governance has been a growing area of management research, especially among large and listed firms. The success or failure of a company, regardless of whether it is a listed company or a SME, is determined by its corporate governance practices. However, the influence of corporate governance variables on the capital structure is less evident in the case of SMEs (Dasilas & Papasyriopoulos, 2015). The board of directors plays a significant role in the SMEs' access to capital through attracting investors (Hamad & Karoui, 2011), innovative ideas in the competitive environment (Chou & Wang, 2009) and the company's strategic management plan (Brunninge, Nordqvist & Wiklund, 2007). Corporate governance heavily influences a company's capital structure (Antoniou, Guney,

& Paudyal, 2008). One of the main activities of boards is facilitating access to resources, particularly capital (Gkliatis, 2009), to reduce the cash flow problem, maintain resource allocations through the most profitable investment, and manage shocks (Bigsten, Collier, Dercon, Fafchamps, Gauthier, Gunning, Oduro, Oostendorp, Patillo, Söderbom, & Teal, 2003).

Due to the firm's closely held nature, the responsibility of the board in SMEs is different compared to listed firms. The risk management's opportunistic behavior is lower in SMEs, since management and ownership overlap (Johannisson & Huse, 2000). Thus, a well-functioning board of directors may create added value to an SME with better control over the management. However, large boards can bring negative value to SMEs with worse coordination, flexibility, and communication (Arosa, Iturralde, & Maseda, 2013). A company with a large board is more prone to seek external financing for expansion and aggressive exploitation of investment opportunities (Ganiyu & Abiodun, 2012). Consistent with this are the findings of Heng, Azrbajani, and San (2012), that board size is inversely proportional to the leverage ratio. However, Nazir and Javaid (2018) believe that board size is not a significant influence on a company's financial decisions. If a board is controlled by the CEO, this indicates a lack of separation between decision and control in the company's management (Fama & Jensen, 1983). Therefore, we hypothesize that:

**H1:** Board size positively influences fintech financing.

The number of board meetings influences the growth of a small business (Gill, Biger, Mand, & Shah, 2012). The board's effectiveness can be seen in the frequency it holds meetings to carry out the tasks of monitoring and advising that lead to better company performance (Gabrielsson & Winlund, 2000; Arosa, Iturralde, & Maseda, 2012). However, frequent meetings may increase the financial burden of the SME. The financial benefits could be reduced by the expenditure associated with such meetings, for instance, the rental of venues, payment of allowances, and transport costs (Abor & Biekpe, 2007). The frequency of meetings may have a negative impact on the financing decisions (Anandasayanan & Velnampy, 2018). Thus, we hypothesize that:

**H2:** Board meetings negatively influence fintech financing.

Regardless of size, financial knowledge about the capital structure is one of the important factors that contribute to the growth and development of SMEs, enabling them to stay competitive in the market (Delic, Peterka, & Kurtovic, 2016). Zulridah and Iskandar (2012) state that a financially literate board of directors can sustain the company and

safeguard its business from financial distress. Board members with financial literacy can effectively guide the management on issues related to financial matters (Gabrielson & Winlund, 2000; Lybaert, 1998). Therefore, we hypothesize that:

**H3:** Board knowledge negatively influences fintech financing.

A CEO's duality causes higher debt policies to be pursued, since a CEO, when also acting as chairman, concentrates on decision making (Na, Lee, & Yu, 2023; Abor, 2007). Gill, Biger, Mand, and Shah (2012) conclude that Indian SMEs incur high levels of debt due to their CEOs' duality and large board size. They argue that the duality of the CEO and the board's size should be used with caution, since a small firm can face an increased risk of bankruptcy through higher debt. Therefore, we hypothesize that:

**H4:** The CEO's duality positively influences fintech financing.

The directors' tenure on a board indicates their commitment to better service (Kaczmarek, Kimino, & Pye, 2012). Longer tenure enables long-term investment protected by incentives and stewardship (Le Breton-Miller & Miller, 2006). Nevertheless, according to Musteen, Barker and Baeten (2006), the longer directors hold their positions, the more they insist on change. Hence, we hypothesize that:

**H5:** Board tenure negatively influences fintech financing.

According to Hart (1995), most SMEs are controlled by families, and family members sit on the board of directors and decide on company operations, including financial matters. Family involvement is mainly engaged in managing the company and taking on less debt, compared to their non-family counterparts (Ampenberger, Schmid, Achleitner, & Kaserer, 2013). Contrary to the findings of Gottardo and Moisello (2014) and Ramalho, Rita, and da Silva (2018), family firms are more leveraged than non-family companies. The main corporate governance factors that affect SMEs' debt ratio are the proportion of family shareholding and family directors (Kuo, Wang & Liu, 2012). Family directors can reduce the frequency of using short-term debt to satisfy long-term financial needs. When they need to make financial decisions, their main concern is how it would affect the family's control, rather than an assessment of the complex financial issues (Crocì, Doukas, & Gonenc, 2011). Hence, we hypothesize that:

**H6:** Family management negatively influences fintech financing.

When making debt-financing decisions, family firms focus on family-centered goals concerning the risk of losing control due to credit monitoring (Schmid, 2013). To safeguard the family's involvement and control, they try to avoid debt financing. However, with limited internal funds available, they may have to consider external sources of financing. When family members are also on the board of directors, family-centered goals can still be achieved and these can influence the debt-financing decision making (Jaskiewicz & Klein 2007). Hence, we hypothesize that:

**H7:** Family board members negatively influence fintech financing.

Nevertheless, when the board of directors includes non-family or outside members, the noneconomic interest of the family shareholders may align with the economic interest of non-family shareholders to grow the business (Blumentritt, 2006). Based on the aforementioned literature, we believe SMEs with family-centered goals are more likely to have family representation on the board as a strategy to influence the firm's decision making, especially regarding the aspects of debt financing. Hence, we hypothesize that:

**H8:** Non-family board members positively influence fintech financing.

The presence of women directors on boards is important for the company's survival (Djan, Zehou, Bawuah, 2017 ; Pasaribu, 2017) since they have an effect in lessening the debt level and reducing earnings volatility (Faccio, Marchica, & Mura, 2016). They prefer short-term debt, unlike their male counterparts (Datta, Doan, & Toscano, 2021). However, women's attitudes toward risk depend on the environment of the company; they can embrace more risk than their male counterparts in certain situations (Adam & Funk, 2012). Thus, we hypothesize that:

**H9:** Female board members negatively influence fintech financing.

By nature, men are willing to take greater risks, while women directors are risk-averse and reluctant to engage in debt financing that would affect the company's performance (Ball, Eckel, & Heracleous., 2010). Diversity on the board enhances a company's competence and reduces any tendency to information asymmetry between managers and owners, and hence toward long-term debt financing (Alves, Couto, & Francisco, 2015). Therefore, based on the above discussion, we hypothesize that:

**H10:** Male board members positively influence fintech financing.

## Methodology

The data were collected using a structured questionnaire survey, given the unavailability of public access to the SMEs' audited financial statements, to obtain corporate governance information. The questionnaire consisted of three sections. Section 1 captured the demographics of the respondents and the companies' profiles. In section 2, respondents were asked for information about the companies' corporate governance. The third section covered questions regarding the companies' financial characteristics.

The study focused on Malaysian SMEs, and 1,000 questionnaires were randomly distributed; however, only 110 were returned and the final usable sample was only 90. As the questionnaire was distributed in 2020, the low response rate was definitely due to the outbreak of coronavirus (COVID 19), which led to Malaysia implementing a Movement Control Order (MCO) beginning on March 18. To curb the spread of COVID-19, only essential services remained open, including supermarkets, hospitals, and pharmacies. Other businesses remained strictly closed. As of August 30, 2020, the last date for data collection, Malaysia was still under a Recovery Movement Control Order (RMCO), which lasted until the end of the year.

Table 1 summarizes the variable definitions and descriptive statistics. The Heckman selection model was employed to examine the relationship between the SMEs' corporate governance and fintech financing. This model was based on the simultaneous estimation of an outcome equation and selection equation, which allowed for any correlations between the unobserved error terms for the dependent variables and participation in the survey (Bärnighausen, Wandira-Kazibwe & Canning, 2011). The model designed by Heckman (1976) allowed for estimating the SMEs' fintech financing, from data obtained from the responses to the survey question "To what extent the firm seeks fintech financing (1: extremely least use; 7: extremely most use)." The Heckman model assumed an existing underlying regression relationship.

$$y_j = x_j \beta + u_{1j} \quad (1)$$

However, the dependent variable ( $y_j$ ) was only observed if

$$z_j \gamma + u_{2j} > 0 \quad (2)$$

Where  $y_j$  was the SME's fintech financing during the survey year, and  $x_j$  and  $z_j$  vectors of observable characteristics relative to this fintech financing, which might or might not be common in the specifications of both equations (1) and (2).  $\beta$  and  $\gamma$  were vectors of the parameters to be estimated, and  $u_{1j}$  and  $u_{2j}$  were normally distributed error terms with

a mean of zero and a standard deviation  $\sigma$  to be estimated. The error terms were distributed as follows:

$$\begin{aligned} u_1 &\sim N(0, \sigma) \\ u_2 &\sim N(0, 1) \\ \text{corr}(u_1, u_2) &= \rho \end{aligned} \quad (3)$$

When  $\rho \neq 0$ , a standard regression model technique, was applied to Equation (1), it provided biased results. The Heckman model provided consistent and asymptotically efficient estimates for all the model's parameters. When  $\rho = 0$ , the standard regression model, was applied to Equation (1), it provided consistent and asymptotically efficient estimators for all the model's parameters (Sarvašová, Quiroga, cSuárez, Ali, T, Lukmine, Đorđević, & Hrib, 2018). Like an instrumental variable method, the Heckman selection model was one way to address an omitted variable bias that occurred due to sample selection issues (Clougherty, Duso, & Muck, 2016; Certo, Busenbark, Woo, & Semadeni, 2016).

Thus, the model was developed as follows:

$$\begin{aligned} \text{Fintech}_{fin} = & \alpha + \beta_1 * \text{Apply}_{fin} + \beta_2 * \text{Board\_Size} + \beta_3 * \text{Board\_Meeting} + \beta_4 * \text{Board\_qual} \\ & \text{ity} + \beta_5 * \text{CEO\_Duality} + \beta_6 * \text{Chairman\_ser} + \beta_7 * \text{Family\_manag} + \beta_8 * \text{Board\_Family} + \\ & \beta_9 * \text{Board\_NoFamily} + \beta_{10} * \text{Board\_Male} + \beta_{11} * \text{Board\_Female} + \beta_{12} * \text{Difficulty}_{fin} + \beta_{13} \\ & * \text{Professional\_Serv} + \beta_{14} * \text{Firm\_Age} + \beta_{15} * \text{Tot\_Assets} + \beta_{16} * \text{Sales\_Grw} + \beta_{17} * \text{R\&D\_Tsales} \\ & + u_{it} \end{aligned} \quad (4)$$

Fintech financing was observed if:

$$\begin{aligned} \gamma_1 * \text{Apply}_{fin} + \gamma_2 * \text{Board\_Size} + \gamma_3 * \text{Board\_Meeting} + \gamma_4 * \text{Board\_quality} + \gamma_5 * \text{CEO\_Du} \\ \text{ality} + \gamma_6 * \text{Chairman\_ser} + \gamma_7 * \text{Family\_manag} + \gamma_8 * \text{Board\_Family} + \gamma_9 * \text{Board\_NoFamily} \\ + \gamma_{10} * \text{Board\_Male} + \gamma_{11} * \text{Board\_Female} + \gamma_{12} * \text{Difficulty}_{fin} + \gamma_{13} * \text{Professional\_Serv} + \gamma_{14} \\ * \text{Firm\_Age} + \gamma_{15} * \text{Tot\_Assets} + \gamma_{16} * \text{Sales\_Grw} + \gamma_{17} * \text{R\&D\_Tsales} + u_{it} > 0 \end{aligned} \quad (5)$$

Even though it has been widely used, the interpretation of the coefficient estimates using the Heckman model can be complicated since common variables are used in both the selection and outcome equations (Vance, 2009). To check the robustness of the result, this study therefore employed the marginal effect model suggested by Vance (2009) to correct the selectivity bias, since it was calculated using a nonlinear function of the underlying model's parameters. The results are reported in Table 3 (Heckman model) and Table

4 (marginal effect model). Model 1 was mainly used to test the board structure, model 2 examined the family board members and board gender diversity and model 3 was for governance variables.

## Empirical Results

The descriptive statistics summarized in Table 1 show that, on average, most SMEs in the sample had two members on the board of directors, with at least one being a family member. On average, the SMEs held five board meetings a year. The age of most of the businesses was around 12 years, with the chairman's tenure about 9.4 years.

**Table 1.** Variable Definition and Descriptive Statistics

Variable	Measurement of Variable	Mean	Std. Dev.
<b>Panel A : Dependent Variable</b>			
Fintech_fin	Ordinal dummy variables for the extent to which the firm seeks fintech finance (1: extremely least use; 7: extremely most use)	3.189	1.907
Apply_Fin	Dummy variable equal to 1 if firm applied for finance in the survey year, and 0 otherwise	0.544	0.501
<b>Panel B : Independent Variable</b>			
Board_size	Number of board members	2.444	1.608
Board_Meeting	Number of board meetings last year	4.756	12.909
Board_qualify	Dummy variable equals 1 if a board member has a qualification in finance or accounting, and 0 otherwise	0.433	0.498
CEO_Duality	Dummy variable equal to 1 if CEO is also the board chairman, and 0 otherwise	0.767	0.425
Chairman_ser	Length of present chairman's service	9.408	7.513
Family_manage	Ordinal dummy variables for the number of family members involved in management: 0 (1), 1-2 (2), 3-4 (3), 5-6 (4), and >6 (5).	1.944	0.987
Board_Family	Number of family board members	1.411	1.728
Board_No-Family	Number of non-family board members	0.800	3.526
Board_Male	Number of male board members	2.022	1.628
Board_female	Number of female board members	0.856	0.855
Difficulty_fin	7-point Likert scale from extremely easy to extremely hard	5.167	1.478
Professional_Serv	Dummy variable with value 1 if law/accounting/consulting firm provides professional service, 0 otherwise	0.700	0.461
<b>Panel C: Control Variable</b>			
Firm_Age	Year business founded	12.322	8.314

Total_Assets	Ordinal dummy variables for total assets: <RM50,000 (1), RM50,000 to less than RM100,000 (2), RM100,000 to less than RM500,000 (3), RM500,000 to less than RM1million (4), and > RM 1 million (5).	3.100	1.536
Sales_Grw	Ordinal dummy variables for sales growth rate: <10% (1), 10%–20% (2), 20–30% (3), 30–40% (4), and >40% (5).	1.600	0.731
R&D_TSales	Ordinal dummy variables for the ratio of R&D expenditure to total sales: <1% (1), 1%–3% (2), 3–5% (3), 5–10% (4), and >10% (5).	1.944	1.301

The result of the tolerance statistic (TOL) and variance inflation factor (VIF) (Table 2) show that no multicollinearity existed for the independent variables. The lowest TOL value was 0.140 (board size) and the highest was 0.815 for professional service. The VIF results ranged between 1.218 and 7.167, all less than 10. Hence, no multicollinearity was detected in the models.

**Table 2.** Multicollinearity

Variable	VIF	Tolerance
Board_size	7.167	0.140
Board_Meeting	1.396	0.716
Board_qualify	1.458	0.686
CEO_Duality	1.447	0.691
Chairman_ser	2.546	0.393
Family_manage	2.529	0.395
Board_Family	4.075	0.245
Board_NoFamily	1.218	0.821
Board_Male	5.774	0.173
Board_female	1.862	0.537
Difficulty_fin	1.389	0.720
Professional_Serv	1.227	0.815
Firm_Age	2.262	0.442
Total_Assets	1.528	0.654
Sales_Grw	1.474	0.678
R&D_TSales	1.957	0.511

Table 3 reports the regression results from the Heckman selection model for applying for finance and fintech financing on board structure, family board members, board gender diversity and firm characteristics. Table 4 reports the robustness results for the marginal effect model. The result apparently showed that the sign, magnitude, and the level of significance of the coefficient was very similar to the coefficient obtained from the

Heckman selection model. However, the result for family board members was positive, and influenced applying for financing at a 10% significance level, unlike the Heckman selection model, but the magnitude of the coefficient was similar for both regressions.

## Applying for Finance

In terms of board size (tables 3 and 4), SMEs with more members prefer more debt financing. The result in model 3 showed that board size was positively and significantly associated with companies applying for financing during the survey year, at a 10% significance level. Companies with large boards enjoy a lower cost of debt, apparently because creditors view them as an effective monitoring device in financial accounting processes (Anderson, Mansi, & Reeb, 2003). In addition, having more directors creates difficulties when decision making, and reduces the quality of corporate governance, consequently increasing the external debt financing (Abor, 2007).

The results also suggested that CEOs with dual positions were insignificant in influencing SMEs to employ debt financing. However, the chairman's length of service had a positive and significant effect on a company's decision to apply for debt financing. The longer the chairman had served, the more likely the company was to access financing. The greater the tendency of a chairman to remain entrenched in his position, the more debt financing was used to reduce information asymmetry. The frequency of board meetings showed no relationship with an SME's decision to apply for external financing, although the associated costs reduced the benefits of obtaining the financing (Abor & Biekpe, 2007).

Family members on boards had little influence on the decision to apply for financing. Nevertheless, the results suggested that the presence of non-family members was positively related to applying for financing, at a 5% significance level. Family directors were foreseen as wanting to dominate and control the risk motivations and increased the fear of bankruptcy due to an insufficient repayment capability (Mishra & McConaughy, 1999), and through being risk averse (Strebulaev & Yang, 2013). They created more cautious attitudes to adopting debt financing. Boards comprising non-family members chose to apply for financing to mitigate agency problems and reduce information asymmetry; they have helped SMEs to achieve strategic changes (Bankewitz, 2016), and added value through their advice regarding future growth (Van den Heuvel, Van Gils, & Voordeckers, 2006).

As for board diversity, the outcome demonstrated that male board members strongly influenced the decision to apply for financing, while female members were insignificantly related to this. Women experienced greater difficulties in looking for external financing since they had less access to sources of information and debt capital than men did (Constantinidis, Cornet, & Asandei, 2006).

The results also reported that the longer the SME had been operating in the market, the more likely it was to apply for finance. This was consistent with the results of Yazdanfar and Ohman (2014), who found that newer SMEs would be in a phase of less diversified and volatile profits. For older SMEs, the level of information asymmetry tended to be lower, so they found it easier to obtain funding through external financing (Mac and Bhaired & Lucey, 2010). Sales growth strongly influenced company decisions to apply for financing, at a 1% significance level. This suggests that high-growth SMEs require more external funding, as capital would be needed to support their future growth prospects. Degryse, Matthews and Zhao (2017) similarly conclude that SMEs favor long-term leverage with increased growth opportunities.

## **Fintech Financing**

Based on the Heckman selection model and the marginal effect model in tables 3 and 4 respectively, the result indicated that the duality of the CEOs positively influenced the SMEs to obtain financing through fintech platforms, at a 1% significance level, hence Hypothesis H4 was accepted. There were insignificant relationships between board size, board meetings, board knowledge and board tenure and fintech financing, therefore hypotheses H1, H2, H3 and H5 were rejected. Given the economic conditions at the time the survey was conducted, we further examined the companies' strategic decisions, and the CEOs' duality indicated an increased debt portion, especially through fintech financing. With environmental dynamism, an increase in uncertainty would challenge the CEO's decision making and strategic implementation (Halevi, Carmeli, & Brueller., 2015). A CEO is required to utilize all the resources and capabilities to continue sustained company performance (Waldman, Ramirez, House & Puranam, 2001) and innovation (Prasad & Junni, 2016); consequently, SMEs with CEO duality perform better than those without duality (Gabrielsson, 2007). Thus, CEOs' duality takes advantage of the fintech platform to obtain a source of capital to continue business operations and reduce the possibility of information asymmetry inside the company.

When SMEs appoint board members with knowledge of finance and accounting, they are insignificantly associated with the decision to apply for external financing, mainly through fintech platforms. This result contradicts Zulridah and Iskandar (2012), who concluded that board members' financial and accounting knowledge helps SMEs to sustain their businesses, with guidance on matters related to financing (Gabrielson & Winlund 2000; Lybaert 1998). However, our results reveal that once SMEs have received advice from professional people, such as lawyers, accountants or financial consultants, regarding their business activities and operations, this adversely affects debt financing using the al-

ternative medium of financing. Models 1 and 2 show that professional advice had a negative relationship with fintech financing, at 10% and 5% significance levels, respectively.

In models 5 and 6, when the board of directors consists of family members, SMEs employ significantly less debt financing through fintech platforms, at 10% and 5%, respectively. Therefore, Hypothesis H7 was accepted, where family board members negatively influence fintech financing. There was a strong feeling of trust in the banks by family companies, consequently improving access to bank financing, mainly for long-term debt and meeting their target leverage (Crocì, Doukas, & Gonenc, 2011; Pindado, Requejo, & la Torre, 2015). Therefore, family members on the board prefer conventional financial institutions for external sources of capital, instead of the new medium. The result also revealed that family members in management positions, and non-family members on the board, were insignificant in influencing SMEs decisions regarding some aspects of financing through online platforms. Thus, hypotheses H6 and H8 were rejected.

In terms of board diversity, females had a significantly negative attitude to fintech financing in models 5 and 6, therefore hypothesis H9 was accepted. However, hypothesis H10 was rejected, as the result showed that male board members had an insignificant preference for obtaining capital financing through fintech platforms. Female directors attended more board meetings and obtained information to monitor the executive directors (Adams & Ferreira, 2009); hence, board diversity helped to improve monitoring efficiency (Carter, D'Souza, Simkins, & Simpson, 2010). Managerial opportunistic behavior and information asymmetry were reduced with female directors on the board, which subsequently affected creditors' perceptions of the likelihood of loan default and the cost of debt (Usman, Farooq, Zhang, Makki & Khan, 2019).

SMEs' research and development (R&D) was positively and significantly related to fintech financing, at a 5% significance level. When a SME needed capital to finance its R&D, it chose to obtain it through a fintech platform. Consistent with the findings of Chebukhanova and Blokhina (2020), there were positive relationships between R&D and alternative online funding platforms. Fintech channels provided manageable conditions for SMEs to obtain financing and reduce the financial constraints (Degryse, Matthews & Zhao, 2017). Easy access to finance has helped SMEs overcome market competition through new product developments and long-term survival (Altomonte, Gamba, Mancusi, & Vezzulli, 2016).

Total assets represented the size of the company and showed a negative relationship with fintech financing, at a 1% significance level. This indicated that large companies prefer to employ adverse debt through innovative financing. Large SMEs, having diversified business operations with stable profits, prefer to access financing through formal channels, such as financial institutions, venture capitalists, and the government (Arif,

Hasan, Joyo, Gan, &amp; Sazali Abidin, 2020).

**Table 3.** Heckman Selection Model

Variable	Applying for Finance			Fintech Financing		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Board_size	-0.195*		0.370*	0.047		0.178
	-0.102		-0.204	-0.176		-0.4
Board_Meeting	-0.01		-0.011	-0.006		-0.003
	-0.018		-0.01	-0.035		-0.038
Board_qualify	0.224		0.314	-0.259		-0.372
	-0.244		-0.252	-0.44		-0.47
CEO_Duality	-0.013		0.019	1.285***		1.332**
	-0.35		-0.296	-0.41		-0.582
Chairman_ser	0.056**		0.042	-0.024		-0.027
	-0.024		-0.026	-0.035		-0.036
Family_manage	0.008		-0.424	0.051		0.409*
	-0.192		-0.36	-0.207		-0.21
Board_Family		0.107	0.332		-0.059*	-0.039**
		-0.105	-0.195		-0.121	-0.235
Board_NoFamily		0.226*	0.123		-0.034	-0.056
		-0.112	-0.23		-0.019	-0.021
Board_Male		-0.396***	-0.722***		-0.028	0.199
		-0.11	-0.258		-0.184	-0.507
Board_Female		0.116	0.058		-0.521**	-0.578*
		-0.232	-0.294		-0.228	-0.327
Difficulty_fin				0.136	0.104	0.164
				-0.139	-0.128	-0.132
Professional_Serv	0.262	0.342	0.388	-1.238*	-1.373**	-0.952
	-0.42	-0.532	-0.534	-0.602	-0.524	-0.7
Firm_Age	0.076*	0.102***	0.083**	0.039	0.021	0.013
	-0.038	-0.036	-0.037	-0.031	-0.031	-0.026
Tot_Assets	-0.01	-0.002	0.012	-0.555***	-0.539***	-0.579***
	-0.206	-0.161	-0.185	-0.133	-0.134	-0.152
Sales_Grw	0.764***	0.674***	0.932***	-0.255	-0.014	-0.47
	-0.249	-0.247	-0.329	-0.189	-0.248	-0.32
R&D_TSales	-0.275*	-0.243*	-0.445**	0.453*	0.367**	0.492**
	-0.145	-0.134	-0.193	-0.234	-0.175	-0.226
Obs	90	90	90	90	90	90
rho				0.023	0.085	-0.087
sigma				1.287	1.3	1.217

lambda	0.03	0.111	-0.106
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*Note: \*, \*\*, \*\*\* shows statistical significance at the level of 10%, 5% and 1%, respectively.*

**Table 4.** Marginal Effect Model

Variable	Applying for Finance			Fintech Financing		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Board_size	-0.195**		0.370*	0.05		0.199
	-0.102		-0.204	-0.184		-0.446
Board_Meeting	-0.01		-0.011	-0.006		-0.003
	-0.018		-0.01	-0.036		-0.04
Board_qualify	0.224		0.314	-0.263		-0.354
	-0.244		-0.252	-0.428		-0.443
CEO_Duality	-0.013		0.019	1.285***		1.334***
	-0.35		-0.296	-0.407		-0.575
Chairman_ser	0.056**		0.042*	-0.025		-0.025
	-0.024		-0.026	-0.042		-0.04
Family_manage	0.008		-0.424	0.051		0.385
	-0.192		-0.36	-0.207		-0.275
Board_Family		0.107	0.332*		-0.065	-0.02
		-0.105	-0.195		-0.125	-0.291
Board_NoFamily		0.226**	0.123		-0.047	-0.049*
		-0.112	-0.23		-0.056	-0.027
Board_Male		-0.396***	-0.722***		-0.005	0.158
		0.11	0.258		-0.196	-0.615
Board_Female		0.116	0.058		-0.528**	-0.575*
		0.232	0.294		-0.231	-0.31
Difficulty_fin				0.136	0.104	0.164
				-0.139	-0.128	-0.132
Professional_Serv	0.262	0.342	0.388	-1.243**	-1.394***	-0.93
	-0.42	-0.532	-0.534	-0.583	-0.469	-0.645
Firm_Age	0.076**	0.102***	0.083**	0.037*	0.014	0.018
	-0.038	-0.036	-0.037	-0.022	-0.026	-0.019
Tot_Assets	-0.01	-0.002	0.012	-0.555***	-0.538***	-0.578**
	-0.206	-0.161	-0.185	-0.134	-0.131	-0.151
Sales_Grw	0.764***	0.674***	0.932***	-0.268	-0.055	-0.417
	-0.249	-0.247	-0.329	-0.23	-0.291	-0.433
R&D_TSales	-0.275*	-0.243*	-0.445**	0.458**	0.382**	0.467***
	-0.145	-0.134	-0.193	-0.211	-0.171	-0.183

*Note: \*, \*\*, \*\*\* shows statistical significance at the level of 10%, 5% and 1% , respectively.*

## Conclusion

SMEs play a significant role in the Malaysian economy, and their contribution to GDP is expected to increase. However, the main challenge limiting SMEs' ability to grow and increase their productivity is poor access to capital and financing. Most of the prior research focuses on corporate governance and SMEs' performance. However, the main contribution of this study is to examine the effect of corporate governance and the use of fintech financing among Malaysian SMEs. Based on 90 respondents, and using the Heckman selection model and the marginal effect model, the results show that SMEs facing financial constraints have no relationship with the decision to apply for finance, or choosing fintech platforms to raise the required funds. Other than that, the CEOs' duality positively influences the decision to choose capital financing through fintech. This positive preference for the fintech platform might be due to it offering lower-cost financing and taking less time to access capital, compared to conventional banking facilities. Surprisingly, the results reveal that having expert members on the board does not influence the decision either to apply for, or choose, an alternative medium of financing. The financial benefit of having board members with knowledge of accounting and finance to map business operations and support growth at different stages is yet to be seen. However, advice from professionals does influence the SMEs' decision to choose fintech to obtain finance, albeit negatively. They prefer companies which are less dependent on alternative financing, even though the traditional financial institutions are not as easy to access.

In terms of board diversity, males positively influence SMEs to apply for financing, although not necessarily through fintech. Having wider networks than females, male board members may have less difficulty in approaching traditional financial institutions and do not need to focus on alternative methods of financing. Female board members do influence the decision to obtain the capital needed through fintech platforms. When SMEs have board members with no family affiliations, the decision to apply for external debt financing increases, whereas family board members only exert their influence when the company decides to choose a fintech platform to obtain the capital it needs. Family members, who are involved in company management, have little influence on applying for financing or choosing fintech as the medium.

The findings from this study have important implications for policy makers and regulators, financial institutions, and researchers. They contribute to the body of knowledge by exploring fintech financing as a medium used to access funding by Malaysian SMEs; this is rarely reported in the literature. This study also examined the use in fintech financing of aspects of corporate governance mechanisms, especially board structure. Therefore, it encourages policy makers and regulators to explore the corporate governance mechanisms that influence SMEs to obtain finance through a fintech platform, further

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designing and strengthening corporate governance to enhance the SMEs' growth.

However, the current study has limitations that should be considered for future research. First, data were collected via a survey questionnaire based on a random sampling of SMEs, with a very low response rate as a result of the COVID 19 restrictions. Future studies are recommended to extend the current framework on SMEs' behavior toward fintech financing after the pandemic. Second, the survey data could be subject to sampling bias, making it difficult to accurately measure a true representative sample. Hence, the results do not characterize all Malaysian SMEs. Finally, the variables used in the current study are not comprehensive, and future studies should include others, coupled with moderating or mediating effects, to have more inclusive findings.

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