



## Managerial experience, fixed asset, and capital structure

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### ABSTRAK

Penelitian ini bertujuan untuk membuktikan secara empiris pengaruh pengalaman manajerial terhadap struktur modal dan peran aset tetap sebagai variabel moderasi yang mempengaruhi hubungan antara pengalaman manajerial dan struktur modal di Indonesia. Sampel penelitian adalah seluruh perusahaan yang tergabung dalam Sektor Infrastruktur, Utilitas dan Transportasi di Bursa Efek Indonesia tahun 2014-2018. Pengambilan sampel penelitian dilakukan dengan menggunakan metode purposive sampling. Analisis data dalam penelitian ini menggunakan teknik regresi dengan metode Ordinary Least Square (OLS). Berdasarkan analisis regresi, hasil penelitian ini menunjukkan bahwa pengalaman manajerial secara signifikan berpengaruh negatif terhadap struktur modal. Akan tetapi, aset tetap tidak terbukti memoderasi hubungan signifikan antara pengalaman manajerial dan struktur modal. Analisis lebih lanjut menunjukkan bahwa aset tetap memoderasi hubungan tersebut jika pengalaman manajerial diukur dari pengalaman internal. Selain itu, hubungan antara pengalaman manajerial dan struktur modal signifikan ketika rasio aset tetap moderat atau tinggi. Temuan ini mengindikasikan bahwa riset tentang pengaruh karakteristik manajer puncak (CEO) terhadap kebijakan atau kinerja perusahaan harus memakai data yang lebih detail tentang karakter atau variabel konteks yang ada.

### ABSTRACT

This study empirically investigates the effect of managerial experience on capital structure and the role of fixed assets as the moderating variable in this relationship. Our research sample is all firms in the infrastructure, utilities, and transportation sectors listed at the Indonesian Stock Exchange in 2014-2018 based on the purposive sampling method. We analyze the research data with the ordinary least square (OLS) method. The results of our regression analysis show that managerial experience negatively

affects capital structure. However, we find that fixed assets do not moderate the relationship between managerial experience and capital structure. Further analysis indicates that fixed assets moderate the relationship between managerial experience (MANXEP) and capital structure when MANEXP is measured with internal experience but not with the external one. Besides, the relationship between managerial experience and capital structure is significant when the fixed asset ratio is moderate or high. Overall, these findings indicate that studies on the effects of top managers/ CEOs' characteristics on firms' policies or performance should obtain and analyze more detailed measures of the CEOs' characteristics or the context variables.

## INTRODUCTION

Capital structure, commonly known as financial leverage, is a fundamental property of corporate finance resulting from managers' funding decisions in selecting and combining funding sources to support their firms' investment activities. Chang et al. (2019); Yildirim et al. (2018) define capital structure as a combination of debts and equities related to firms' capabilities to meet stakeholders' needs. Ross et al. (2016) define financial leverage as firms' dependence on debt-based funding sources.

Capital structure represents an essential form of firms' financial decisions. Brown et al. (2019) conclude that capital structure is crucial that institutional investors consider this factor when making investment decisions. Gan et al. (2021); Li & Islam (2019); Sharma (2017) suggest that capital structure is strategic in managing corporate funds that arguably affects the cost of capital, profitability, and firm valuation. Badruzaman (2019); Ibrahim & Zulkafli (2018); Matias et al. (2018) argue that capital structure reflects shareholders and creditors' contributions in financing firms' assets that affect firms' financial and social performance.

Funding decisions are closely related to Chief Executive Officers' (CEOs) roles in firms' strategic decision-making processes and fixed asset availability as debt collaterals (Matemilola et al., 2018). Table 1 below explains this argument by highlighting firms' capital structures in the infrastructure, utilities, and transportation sectors. These firms rely more on debts than equities, as indicated by the 2014-2018 debt to capital ratio values that range from 41.05 to 44.94 percent. Similarly, the debt to asset ratio values (33.86 to 37.04 percent) indicate the low use of debts to finance firms' assets. Furthermore, the data offers an early indication that firms with more experienced CEOs and higher fixed asset ratios (in 2017) tend to have lower debt proportions. Firms in these sectors obtain debts from various sources, including bond issuances. News from CNBC Indonesia (2019) informs that the infrastructure sector dominated bond issuance in the second semester of 2019. Infrastructure firms have significantly issued bonds mainly due to the presidential policy to encourage infrastructure development.

**Table 1**  
**Average Debt to Asset, Debt to Capital, Fixed Assets, and Managerial Experience of Firms in the Infrastructure, Utilities, and Transportation Sectors, 2014-2018**

Year	DTA	DTC	Fixed Assets	Experience
2014	34,29	44,88	50,27	24
2015	35,16	43,72	46,50	25
2016	37,04	44,94	64,20	25
2017	34,91	42,02	64,78	26
2018	33,86	41,65	62,87	24

Source: Secondary data processed (2020)

Ardalan (2017); M'ng et al. (2017) reveal that excessive debt levels increase bankruptcy risks that firms need to make debt decisions more cautiously. Higher debts increase costs (interests) that remain payable regardless of firms' profits. Hence, firms that select suboptimal funding source compositions exhibit higher bankruptcy risks.

The pecking order and trade-off theories can explain funding decisions. The pecking order theory explains that firms have preferences in making decisions about funding sources (Myers, 1984; Myers & Majluf, 1984). Managers will prioritize internal financing sources. However, they will rely on external financing sources (debts and equities) when internal sources are insufficient (Hang et al., 2018; Haron, 2016) because of information asymmetry (managers have better firm-specific information than investors and creditors as external stakeholders). Information asymmetry increases transaction costs that firms have to incur higher costs of capital (Halim et al., 2019).

The trade-off theory highlights how firms take tax savings and interest costs into consideration when they strategically determine the debt and equity levels. Managers seek to preserve their investment plans by maximizing tax shields. Hence, they tend to rely on more debts (Matemilola et al., 2018). However, prior studies of Ahsan et al. (2016); Alipour et al. (2015); Chadha & Sharma (2015); Harris & Roark (2019); Kiraci & Aydin (2018); Li & Islam (2019); Vo (2017); Yousef (2019) have still shown inconsistent results on capital structure and focused on firm-level characteristics.

In this respect, Hambrick & Mason (1984) upper echelon theory suggests that managers' cognitive aspects are crucial in explaining firms' strategic decisions, including those related to capital structure. Kauer (2008) cognitive theory defines cognitive aspects as the accumulation of knowledge obtained by managers based on their managerial experience.

Firms' higher debt levels raise the question of whether managers exploit their skills to maximize firm values. Several proxies measure managerial skills, including managerial experience (Matemilola et al., 2018). Managerial experience represents firms' knowledge accumulation strategy to achieve competitive advantage (Kang et

al., 2019). More experienced managers (longer tenure) arguably can make better decisions because they know how to exploit their firms' resources more effectively (Dong, 2016).

Borgia & Newman (2012); Loan, et al. (2020); Matemilola et al. (2018) conclude that more experienced managers use higher debts in capital structure policies. However, Ting et al. (2016) demonstrate that more experienced managers tend to be more careful and use lower debt levels in their firms' capital structure. The inconsistent results highlight the importance of further studies on this issue by incorporating other variables. However, prior studies largely have not discussed which variables potentially moderate the relationship between managerial experience and capital structure.

According to the trade-off theory, firms need fixed assets as collateral to obtain external funding sources (debts). Besides, firms with higher fixed asset values arguably have lower credit risks that their debt utilization ratio increases (Matemilola et al., 2018). Thus, we argue that fixed assets likely moderate the effect of managerial experience on capital structure.

To our best knowledge, the role of managerial experience and fixed assets on capital structure is relatively understudied (Borgia & Newman, 2012; Loan, et al., 2020; Matemilola et al., 2018; Ting et al., 2016). Thus, our paper extends the capital structure literature by investigating fixed assets' moderating role on the relationship between managerial experience and capital structure.

## **LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT**

### **Managerial Experience**

Various managerial characteristics affect managers' decisions (Tarus & Ayabei, 2016), including managerial experience. Dong (2016); Kang et al. (2019) emphasize that experience represents knowledge accumulation (depth and breadth). More experienced managers have better knowledge about their firms' strengths and weaknesses and formulate better strategies and decisions.

### **Upper Echelon Theory**

Hambrick & Mason (1984) propose the upper echelon theory suggesting that firms' more complex and strategic decisions highly involve managerial cognitive aspects. Consequently, managers' characteristics play a crucial role in explaining firms' various decisions and outcomes. They argue further that several managerial characteristics can measure the cognitive aspects, including experience. Accordingly, it is potentially insufficient to explain capital structure decisions only with firm-specific variables.

### **Dynamic Capability Theory**

This theory explains how firms integrate, build, and reconfigure their resources and competencies (Mostafiz et al., 2019) to create and maintain competitive advantages competitors by responding to and creating environmental changes (Miles, 2012). The dynamic capability theory integrates three specific ideas: individual capabilities, strategic actions, and company performance. This theory enables managers to respond to strategic change and optimally allocate resources, including physical, human, and organizational assets.

Management as human resources is a driving factor for developing firms' capabilities and competencies, including using their experience (Castanias & Helfat, 1991; Mostafiz et al., 2019). Management capabilities involve cognitive aspects (including knowledge and mindsets as the basis for decision making) to create new investment opportunities (Mostafiz & Goh, 2018). Thus, management capabilities help firms create values through strategic decision-making.

### **Pecking Order Theory**

This theory explains that firms have ordered funding preferences to meet their investment needs. Particularly, firms prioritize internal financing sources. However, when internal sources are insufficient, they tend to use debt-based external funding sources. If debts remain inadequate, firms will eventually turn to share-based external funding sources (Hang et al., 2018; Haron, 2016). According to this theory, highly profitable firms have low debt ratios because they can rely on internal funding sources (from their retained profits) to finance their investment projects sufficiently.

### **Trade-off Theory**

This theory illuminates how firms consider the costs and benefits of debt financing in their capital structure. Debts help firms save taxes because interest costs are usually tax-deductible (Baker & Martin, 2011). However, firms cannot fully finance their investments with debts because higher debt levels increase bankruptcy risks (Karugu et al., 2018).

### **Managerial Experiences and Capital Structure**

Hambrick & Mason (1984) upper echelon theory implies that capital structure decisions highly involve managers' cognitive aspects as the strategic decision-makers. The cognitive aspects represent managers' depth and breadth of knowledge and abilities based on their experience (Kauer, 2008). More experienced managers have better knowledge about their firms' weaknesses and strengths and make appropriate decisions based on their knowledge (Dong, 2016). Consequently, they tend to be more cautious and maintain lower debt levels (Ting et al., 2016) because they know that higher debts will increase bankruptcy risks. Consequently, prior studies show that managerial experience positively affects capital structure (Borgia & Newman, 2012; Matemilola et al., 2018). Thus, this study proposes the following hypothesis:

**H1:** Managerial experience positively affects firms' capital structure.

### **Fixed Assets, Managerial Experiences, and Capital Structure**

Bonds represent external debt-based funding sources with several sectors (mainly infrastructure) rely heavily on bonds due to massive infrastructure projects initiated by the government in recent years. The trade-off theory argues that firms try to balance the benefits and costs of debt issuance. Firms continue using debts as long as their benefits exceed the costs. Palliam et al. (2013) argue that firms need to consider their fixed assets when formulating capital structure policies.

Among various asset types, firms usually rely on their (tangible) fixed assets as collateral to obtain external fundings (Panda & Nanda, 2020). Panda & Nanda (2020) reveal that firms with high fixed asset levels are easier to generate more debts. Higher fixed assets also motivate firms to use more debts. Alipour et al. (2015) document that firms use debt-financed fixed assets as collateral for other debts. Consequently, they need more fixed assets to pay debts in the event of bankruptcy and firms with more fixed assets have better access to debts. However, higher fixed asset levels also potentially increase financial risks by increasing operating leverage.

Assets are a fundamental element in achieving firms' competitive advantages. The dynamic capability theory reveals that high capabilities enable firms to integrate, build and rebuild internal and external resources (Lee et al., 2021). Management as a human resource is a driving factor for developing firms' capabilities and competencies (Castanias & Helfat, 1991; Mostafiz et al., 2019), including allocating resources (such as physical, human, and organizational assets) optimally. The dynamic capability theory reveals that management facilitates firms to identify and seize opportunities by integrating and reconfiguring assets (Lee et al., 2021).

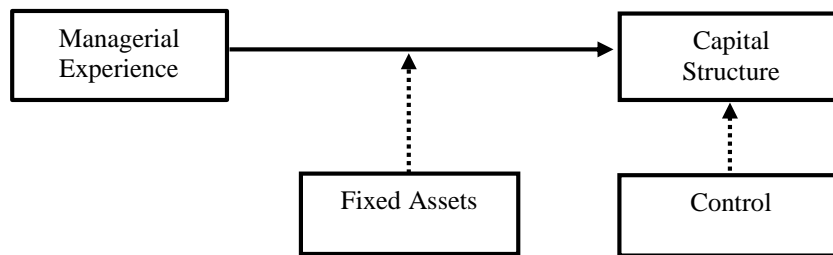
Managerial experience represents managerial abilities that include knowledge and mindsets in supporting firms' profit-seeking activities (Mostafiz & Goh, 2018). More experienced managers can evaluate their firms' weaknesses and strengths (Dong, 2016), including those related to capital structure decisions. In this respect, the role of managerial experience in capital structure decisions depends on firms' fixed assets. Firms with more fixed assets are better able to generate debt fundings to support their investment decisions financially (Haron, 2016). Thus, the following is the second hypothesis:

**H2:** Fixed assets moderate the effects of managerial experience on the company's capital structure

### **RESEARCH METHODS**

We use the following model to illustrated the predicted relationships between

the research variables. The secondary data is generated from *Bloomberg* and firms' annual reports.



**Figure 1**  
**Research Theoretical Framework**

### Population and Sample

This study's population is all firms in the infrastructure, utilities, and transportation sectors listed at the Indonesia Stock Exchange in 2014-2018. These three sectors are selected because they have shown significant developments in recent years due to the Indonesian government's policies (Rahayu & Rahmawati, 2019). We use the purposive sampling method to obtain sample firms based on the following criteria: 1, firms in these sectors that have been continuously listed at the Indonesian Stock Exchange in 2014-2018, 2) firms in these three sectors that have published annual reports consistently in this period, 3) firms with no missing data, 4) firms with no negative or zero values for the selected variables. The criteria result in 18 sample firms and 90 firm-year observations.

### Research Variable and Operational Definition

Our dependent (independent) variable is capital structure (managerial experience). Meanwhile, firms' fixed assets represent the moderating variable. Lastly, we include several control variables (CEO's education level, profitability, and firm size).

This study measures capital structure with the debt to asset ratio that indicates debt-based financing sources' role to finance firms' assets. We operationalize this ratio by dividing total debts with total assets (Ting et al., 2016). As an alternative proxy, this research also employs the debt to capital ratio representing firms' prior capital structure policies (Baker et al., 2010).

Managerial experience is measured with the CEO's working experience in the current firm and her prior firms' working experience (Matemilola et al., 2018). Further, the fixed asset variable is operationalized with the ratio of net fixed asset value to total assets where net fixed assets consist of property, plant, and equipment – depreciation and total assets contain current and net fixed assets (Matemilola et al., 2018).

This study uses several control variables to mitigate the risk of spurious relationships between the independent and dependent variables (Miller & Brewer,

2003). We operationalize profitability with the ratio between net income and total assets (Panda & Nanda, 2020). The trade-off theory explains that profitability is positively associated with debts because highly profitable firms can repay their debts and interests more easily and thus are motivated to rely on larger debts (Matemilola et al., 2018). Firm size is measured with the natural logarithmic value of net sales. The trade-off theory explains that larger firms are more stable and have lower bankruptcy risks that they can obtain more debt fundings (Matemilola et al., 2018). Lastly, the CEO's education level is measured with a seven-point ordinal scale representing the highest educational level attained by the CEO with the following scale: one (lower than high school), two (high school), three (attended undergraduate school), four (earned undergraduate degree), five (attended graduate school), six (earned master degree), and seven (earned Ph.D./doctorate) (Ting et al., 2016).

### Analytical Tools

Initially, the descriptive statistics explain the characteristics of the research variables. This study does not employ the (firm and year) panel elements because it assumes that the effects of the independent and moderating variables are firm and time-invariant.

The data is analyzed with the ordinary least square (OLS) method with SPSS 25 and Stata 14. This study utilizes Process Macro on SPSS 25 provided by Hayes (2018) to capture fixed assets' moderating effect. Thus, the regression model of this study is as follows:

$$CAPS = \beta_0 + \beta_1 MEXP + \beta_2 ASSET + \beta_3 (PMEXP * ASSET) + \beta_4 PROF + \beta_5 FSIZE + \beta_6 EDUC + \varepsilon \dots\dots\dots 1$$

where CAPS is capital structure, MEXP refers to managerial experience, ASSET is fixed assets, PROF represents profitability, SIZE is firm size, EDUC is education, and  $\varepsilon$  is the error term.

We also run an additional analysis by classifying managerial experience into the internal and external experiences to investigate whether the effect of *MANEXP* on capital structure depends on the sources of managerial experience. We also investigate the conditional effect of fixed assets by classifying the observations into three categories based on fixed asset values (low, medium, and high).

## ANALYSIS AND DISCUSSION

### Results

Table 2 presents the descriptive statistics (mean and standard deviation) of the research variables. The statistics suggest that our observation firms rely more on equities than debts (the CAPS value is lower than 0.5) and have highly experienced



CEOs (the average managerial experience is about 25 years). Further, the sample firms have a great proportion of fixed assets and are relatively profitable, with an average total sales of about Rp 500 billion. Meanwhile, the median value of the education variable (*EDUC*) is six, indicating that sample firms' CEOs mostly earn a master's degree.

**Table 2**  
**The Estimation Result Of Descriptive Statistics**

	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
CAPS	90	35.05	15.63
MEXP	90	24.66	12.91
ASSET	90	0.58	0.30
PROF	90	5.80	3.94
SIZE	90	20.04	3.86

Source: Secondary data, processed (2020)

Initially, we run the successive interval method to transform the non-metric data (*EDUC* – measured in ordinal scale) to metric data. Sarwono (2012) highlights that statistical techniques such as regression analysis assume that the research variables are measured on a ratio or interval scale. We also mean-center the research variables to mitigate the risk of high correlation between interacted independent variables (Hamilton, 2013). We use Microsoft Excel and SPSS to run these two methods.

This study uses the Newey-West procedure or robust standard error to overcome the autocorrelation and heteroscedasticity problems in the regression model (Gujarati & Porter, 2009; Wooldridge, 2016), although this method does not eliminate the problems. This procedure works by adjusting the regression model's standard errors to facilitate statistical conclusions.

**Table 3**  
**The Regression Results**

<b>Variable</b>	<b>Coefficient</b>	<b>Standard Error</b>	<b>t</b>	<b>p</b>
MEXP	-0.599	0.119	-5.028	0.000*
ASSET	4.413	5.371	0.822	0.414
MEXP*ASSET	-0.050	0.445	-0.112	0.911
PROF	-1.585	0.341	-4.645	0.000*
SIZ	-0.077	0.316	-0.242	0.809
EDUC	-7.035	1.658	-4.244	0.000*
p-value of F-Statistic	0.000			
R-square	0.411			

Source: Secondary data, processed (2020)

\*Significant at  $\alpha = 0.05$

Table 3 above displays the results of the regression analysis to test the hypotheses. The F-statistic p-value is significant ( $<0.05$ ), indicating that the regression model is feasible to predict the dependent variable. Further, the t-statistic values suggest that *MEXP* negatively affects capital structure ( $-0.599, p=0.00<0.05$ ), implying that the first hypothesis is empirically supported. However, the second hypothesis is not empirically supported, as indicated by the insignificant regression coefficient of *MEXP\*ASSET* ( $-0.050, p=0.910>0.05$ ). For the control variables,

profitability (*PROF*) and CEO's education level (*EDUC*) have significantly negative impacts on capital structure.

**Table 4**  
**The Results of the Robustness Test**

Variable	Coefficient	Standard Error	t	p
MEXP	-0.679	0.153	-4.449	0.000*
ASSET	0.399	6.942	0.058	0.954
MEXP*ASSET	0.727	0.512	1.415	0.161
PROF	-1.922	0.416	-4.622	0.000*
SIZ	-0.542	0.570	-0.951	0.345
EDUC	-6.843	2.309	-2.963	0.004*
p-value of F-Statistic	0.000			
R-square	0.326			

Source: Secondary data, processed (2020)

\*Significant at  $\alpha = 0.05$

As an alternative test, we use a different proxy of *CAPS*. The results of the robustness test are qualitatively similar to the main analysis. Specifically, *MEXP* negatively affects firms' capital structure, although the interaction between managerial experience and fixed assets has no significant impact on *CAPS*. For the control variables, *PROF* and *EDUC*'s regression coefficients remain significant.

We also run additional analyses by dividing managerial experience into internal and external experiences (Matemilola et al., 2018). Table 5 presents the regression results with internal and external managerial experiences (models 2 and 3).

**Table 5**  
**The Estimation Result of Additional Analysis**

	Model 2	Model 3
MEXP (INTERNAL)	-0.440 (0.000)*	
MEXP (EXTERNAL)		-0.446 (0.008)*
ASSET	-1.955 (0.723)	2.417 (0.649)
MEXP*ASSET	-1.093 (0.003)*	0.629 (0.301)
PROF	-1.314 (0.000)*	-1.276 (0.001)*
SIZ	0.361 (0.319)	-0.337 (0.351)
EDUC	-7.182 (0.000)*	-5.309 (0.001)*
p value of F-Statistic	0.000	0.000
R-square	0.313	0.267

Source: Secondary data processed (2020)

\*Significant on  $\alpha = 0,05$

Similar to the main analysis, Table 5 suggests that managerial experience negatively affects firms' capital structure in both models. However, *MEXP\*ASSET* negatively affects capital structure in model 2, but not in model 3.

We also analyze the conditional effect of fixed assets as the moderating variable (interaction effect). Table 6 below displays the estimation results:

**Table 6**  
**Fixed Assets' Conditional Effects**

<b>Fixed Assets</b>	<b>Effect</b>	<b>p-value</b>
-0.300	-0.112	0.382
0.000	-0.440	0.000*
0.000	-0.769	0.000*

Source: secondary data, processed (2020)

\*Significant on  $\alpha = 0.05$

Table 6 shows that for firms with low fixed assets (-0.3002), the effect of internal managerial experience on capital structure is negative (-0.112) but insignificant ( $p=0.382$ ). For firms with moderate fixed asset values, the effect of internal managerial experience on *CAPS* is negative (-0.440) and significant ( $p=0.000$ ). Similarly, for firms with high fixed asset ratios, the effect of internal managerial experience on *CAPS* is negative (-0.769) and significant ( $p=0.000$ ).

## Discussion

The main results suggest that *MEXP* negatively affects *CAPS*. This finding is consistent with (Borgia & Newman (2012); Loan, et al. (2020); Matemilola et al. (2018); Ting et al. (2016). Hence, firms with more experienced CEOs have lower debt levels. Thus, the empirical evidence supports the upper echelon theory and Kumar et al. (2017), who underscore the role of cognitive aspects in firms' capital structure decisions. The negative impact of managerial experience on capital structure also supports the pecking order theory and Ting et al. (2016), who reveal that more experienced managers tend to be more careful that their firms use lower debt levels in their capital structure policies. In this respect, debts increase costs (interests payable to creditors regardless of firms' profitability) that reliance on excessive debt financing increases bankruptcy risks.

Our analysis demonstrates that fixed assets do not moderate the effect of managerial experience on firms' capital structure. However, further analyses highlight that fixed assets moderate the effect of internal managerial experience on capital structure. Fixed assets crucially enable firms to obtain external fundings that the effect of managerial experience on capital structure depends on firms' capital structure. Hence, our results support the dynamic capability theory. Management as human resources helps firms optimally integrate, build and rearrange internal and external resources (such as physical, human, and organizational assets) (Castanias & Helfat, 1991; Lee et al., 2021; Mostafiz et al., 2019). Thus, managers facilitate firms to create competitive advantages by integrating and reconfiguring company-owned assets (Lee et al., 2021).

More experienced managers can better evaluate their firms' strengths and weaknesses (Dong, 2016), including capital structure decisions. However, the role of fixed assets in moderating the effect of managerial experience on capital structure depends on from which CEOs accumulate their experience. For firms where CEOs

accumulate their experience from their current firms, fixed assets moderate the impact of managerial experience on capital structure likely because these CEOs have better knowledge about firm-specific conditions related to fixed assets and capital structure. Consequently, higher fixed asset levels will motivate these CEOs further to have lower debt-based external financing. Further, the role of fixed assets in moderating the impact of managerial experience on capital structure depends on fixed asset levels. Specifically, low fixed asset levels cannot moderate the relationship significantly, while moderate and high fixed asset levels significantly moderate the relationship. Hence, our results do not support (Alipour et al., 2015; Panda & Nanda, 2020), who reveal that firms with higher asset levels will use more debt levels.

## CONCLUSIONS, LIMITATION, AND RECOMMENDATION

Our empirical study finds the effect of managerial experience on capital structure. However, fixed assets fail to moderate the relationship. Further analysis reveals that both internal and external managerial experiences affect capital structure, and fixed assets moderate the effect of internal managerial experience only. Besides, fixed assets' moderating role on this relationship is only significant when firms have moderate or high fixed assets levels. Thus, this study offers a more nuanced perspective on the role of certain CEOs' characteristics (managerial experience) on firms' outcomes. More specifically, studies on the role of CEOs' characteristics should analyze these characteristics in a more detailed way to identify certain relationship patterns.

This study focuses on firms in certain sectors (infrastructure, utility, and transportation) that arguably rely on more fixed assets than other sectors. Future studies can use firms in many sectors and analyze the industry-level variables on these issues.

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