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Working Capital Management Policy: Female Top Managers and Firm Profitability

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Abstract

Purpose: This study aims to investigate female top managers' choice of working capital management policies and its effect on firm profitability. The theoretical arguments about the effects of working capital management policies on firm profitability and empirical evidence are often inconsistent. Additionally, it is likely that the policy choice is closely related to the gender of top managers.

Methodology: Our research sample was all 136 manufacturing firms listed in Indonesian Stock Exchange during the 2013–2017 period. Following the hypothesis formulation, this study employed four estimation models tested using panel data regression.

Findings: Female CFOs tend to choose more conservative working capital investment policies. Moreover, conservative investment policies have a positive effect on firm profitability and mediate the impact of top female managers on firm profitability.

Originality: Previous literature tends to overlook the role of top female managers in affecting working capital management policies and the effect of these policies on firm profitability. In this respect, this study provides insights on the role of the gender of top managers as a factor that likely explains the choice of working capital management policies in manufacturing firms which, in turn, affect firm profitability.

Keywords: working capital management, female top manager, aggressive policy, conservative policy, profitability.

JEL: G31, L25, C23

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Introduction

The manufacturing industry plays a strategic role in the national economy. In developing countries like Indonesia, the manufacturing industry contributes most significantly to the economy, namely 20.16% of total GDP, and grew by 4.27% in 2017. The significant contribution of manufacturing firms is mainly due to their ability to employ labor force, innovate, and create added value. In Indonesia, manufacturing firms are classified into three industry groups: miscellaneous industry, basic industry, and consumer goods industry.

Manufacturing firms exhibit a high level of investment in current assets and a greater reliance on short-term financing. For example, in Indonesia for years 2010–2017, account receivables and inventory accounted for 18% and 21% of total assets, respectively. Meanwhile, account payable accounted for 11% of total assets. A high proportion of current assets and liability investment implies that working capital management determines the continuity of manufacturing firms (Raheman, Afza and Qayyum, 2010). Working capital management is related to the management of current assets and current liabilities, along with the interrelationship between these two accounts (Abuzayed, 2012). Indeed, previous studies show that working capital management significantly affects firms' liquidity (Adekola, Samy and Knight, 2017; Attom, 2016) and profitability (Aqil et al., 2019; Deloof, 2003; Hien Tran, Abbott and Jin-Yap, 2017; Kusuma and Bachtiar, 2018; Nastiti, Atahau and Supramono, 2019).

There are two types of working capital management policy, namely aggressive and conservative policies. Aggressive working capital management policy aims to minimize investments in current assets to achieve higher profitability, although firms are likely to have higher liquidity risk. Meanwhile, conservative policy invests heavily in current assets. In this respect, firms will have lower liquidity risk, but they are less likely to generate higher profits. However, numerous studies demonstrate that conservative policies positively affect profitability (Adam, Quansah and Kawor, 2017; Nazir and Afza, 2009; Raheman et al., 2010).

Besides the inconsistency between the theoretical argument and empirical evidence, it is interesting to investigate whether working capital management policy is related to managerial characteristics. According to the upper echelons theory, introduced by Hambrick and Mason (2013), the characteristics of organizations' top managers can be used to predict organizations' choice of strategic decisions. The basic idea of this theory is that organizational actions reflect the character of top managers. Gender is important among various top managers' characteristics because women tend to behave

differently from men in strategic analysis and decisions (Alonso-Almeida and Bremser, 2015; Bear, Rahman and Post, 2010). In this respect, gender is likely related to working capital management policies. Meanwhile, Rasyid, Lukman, and Husni (2018) propose that the choice of working capital management policy depends on managers' preference for risk and return.

Several recent studies emphasize firms' gender-based financial policies, especially those related to investment, financing, and dividend policies. For example, studies investigate the gender issue in investment policy (Levi, Li and Zhang, 2014; Liang, Hsieh, Lin and Chi, 2018), while other consider financing policy (Faccio, Marchica and Mura, 2016; Huang and Kisgen, 2013) and dividend policy (Al-amarneh, Yaseen and Iskandrani, 2017; Djan, Zehou and Bawuah, 2017; Kristianto and Djuminah, 2018). In general, these studies demonstrate that firms with female top managers tend to take less risky financing and investment options than their male counterparts. Similarly, because dividends are considered less risky than capital gains, firms managed by female top managers have a larger dividend payout than firms with male top managers.

This study aims to investigate female top managers' choice of working capital management policies and its effect on firm profitability; it contributes to the extant literature in two ways. First, the article includes the gender aspect in analyzing the working capital management policy. The literature tends to overlook the relationship between the gender of top managers and working capital management policies. According to our knowledge, there is only one study (Orabia, 2013) that analyzes the relationship between gender with working capital management. However, the current study investigates factors that affect the behavior of working capital management between male and female managers. Moreover, the current study answers the appeal of Kilic and Kuzey (2016) to further examine the effects of women's representation in top management, as this issue is relatively understudied.

Second, this article aims to provide empirical evidence of the indirect effect of gender on firm profitability through working capital management policies in developing countries like Indonesia. Some studies investigated the effect of working capital policy on profitability, but most did not analyze the role of working capital policy in mediating the influence of the gender of top managers on profitability. Moreover, this study is expected to have practical implications, among others, by describing the economic benefits of the involvement of women in the top management, which will eventually underscore the importance of gender equality in business.

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Literature and Hypotheses Development

Working capital management policy is closely related to firms' investments in current assets and short-term financing (Gitman and Chad, 2012). This policy can be classified with two characteristics: conservative and aggressive. Scholars consider firms to have a conservative working capital management policy if the ratio of their current assets to total assets is high or if the proportion of their current liabilities to total assets is low. On the contrary, firms exhibit aggressive working capital management policy when they have a low proportion of current assets relative to total assets and a relatively high proportion of current liabilities to total equity.

Theoretically, a conservative current assets investment policy is likely to minimize liquidity risk. However, this approach is more costly due to greater holding and financing costs that are spread in the long run, which will arguably reduce a profit. On the contrary, an aggressive policy incurs a higher risk but is likely to generate a higher profit (Sohail, Rasul and Fatima, 2016). A well-formulated policy will enable firms to continue their operations and have sufficient cash flows to pay both their due short-term liabilities and operating costs at a minimum cost (Barine, 2012) that will eventually determine firm performance (Adam et al., 2017; Bei and Wijewardana, 2012; Nazir and Afza, 2009).

As part of top management characteristics, gender is an important characteristic that is worth considering, because gender difference likely leads to different perspectives and strategic preference that will be implemented in firms (Alonso-Almeida and Bremser, 2015; Bear, Rahman and Post, 2010). In line with this view, the upper echelons theory (Hambrick and Mason, 2013) postulates that individual characteristics play an important role in the firm-level decision-making process. In the context of working capital management, a previous study by Oreba (2013) shows that women and men differ in working capital management decisions. This behavioral difference is affected by two factors: perceived usefulness and attitude. Specifically, women are more likely to involve in working capital management when they perceive that the involvement will achieve the desired results. On the other hand, men will involve in working capital management when they consider working capital management important.

Working capital management policy choices – that is, whether firms have more aggressive or conservative working capital policies – are also likely influenced by differences in behavioral factors between women and men. Women as top managers are associated with less overconfident behavior. Behavioral finance literature argues that overconfident individuals behave as if they had better performance than they actually have (e.g., Dittrich, Güth and Maciejovsky, 2014; Odean, 1998; Pompian, 2012). Meanwhile, the literature

proposes three major definitions of overconfidence (Moore and Healy, 2008). First, overestimation refers to a situation when individuals overstate themselves or their ability. Second, better-than-average- or overplacement is individuals' belief that they are better than others. Third, overprecision is an excessive belief in the accuracy of ones' predictions.

Overconfidence leads to various effects, such as underestimating risks (Odean, 1998) and individuals' tendency to believe that their assessments are more accurate than the actual assessment performance. Thus, overconfident top managers potentially choose aggressive working capital management policies that prioritize profitability over liquidity risk by reducing the investments in current assets or relying more on short-term financing. Conversely, less overconfident managers will arguably choose conservative policies. Meanwhile, several studies demonstrate that women exhibit less overconfidence than men (Barber and Odean, 2001; Huang and Kisgen, 2013). In this respect, female top managers are likely to implement more conservative working capital management policies than their male counterparts.

Besides overconfidence, the effect of the presence of women as top managers on the choice of working capital management policy influences risk preference. Risk-averse top managers arguably try to prevent their firms from stock out and ensure that their firms' liquidity always enables them to repay their due short-term liabilities on time by choosing conservative policies. Previous literature documents supporting evidence that female managers are more likely to avoid risks than their male counterparts (Adams and Funk, 2012; Faccio et al., 2016; Yu et al., 2017). Thus, female top managers tend to be more risk-averse, as they prefer to choose more conservative working capital management policies. Based on the above arguments, we may formulate the following hypotheses:

H1a: Female top managers are more likely to choose conservative current asset investment policies than male top managers.
H1b: Female top managers are more likely to choose conservative short-term financing policies than male top managers.

A working capital management policy is a plan that involves decisions on short-term assets and liabilities, such as the composition, use, and effect of the composition on firms' risk and return behaviors (Afza and Nazir, 2011). Firms manage their working capital to ensure that they can fulfill their due short-term obligations and avoid excessive investments in current assets (Padachi, 2006). If firms prioritize liquidity by assuming a conservative current asset investment policy rather than an aggressive

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one, they will invest more in current assets and less in fixed assets. A high level of current assets requires more financing from both short-term and long-term debts, which will increase firms' capital costs. Thus, conservative policies reduce liquidity risks but have a detrimental effect on earnings (Gitman and Chad, 2012). Likewise, if firms choose a conservative working capital financing policy, they will maintain their current liabilities at a minimum level relative to their long-term debts. While alternative financing through current liabilities should be much cheaper for firms than long-term debts (Thakur and Muktadir-al-mukit, 2017), it might lower firms' profits. Effective working capital management will be able to increase profitability and minimize liquidity risks at the same time (Van-Horne and Wachowicz, 2004).

In line with the above high-risk-high-return principle, conservative (aggressive) policies will lead to lower (higher) profits. However, previous studies demonstrate mixed results. Some studies show consistent results that conservative working capital investments negatively affect profits (Nyabuti and Alala, 2014; Thakur and Muktadir-al-mukit, 2017). Similarly, conservative financing policies also hurt profits (Adam, Quansah and Kawor, 2017; Mwangi, Macau and Kosimbei, 2014). However, several other studies document that conservative investment policies have a positive influence on profits (Rasyid et al., 2018; Sohail et al., 2016; Vahid, Mohsen and Mohamandreza, 2012). Likewise, conservative financing policies also exhibit a positive effect on profit (Javid and Zita, 2014; Rasyid et al., 2018; Vahid, Mohsen and Mohamandreza, 2012).

The positive influence of conservative current assets investment policies on profits indicates that firms manage to offset the increase in the cost of capital in current assets with a much greater increase in profit margin. Sohail et al. (2016) assert that conservative investment policies can be used to enhance profit growth should firms manage their cash conversion cycle optimally. Meanwhile, the positive impact of conservative financing policies on profits suggests that current liabilities are ineffective as an alternative financing source that is cheaper than long-term financing. A likely explanation of this condition is that firms incur additional costs when managing their current liabilities, while the money market is so thin that firms have limited access to cheaper short-term financing (Thakur and Muktadir-al-mukit, 2017). Based on the above discussion, implementing conservative working capital management policies may have a positive effect on firm profitability. Therefore, we may formulate the following hypotheses:

H2a: Conservative current asset investment policies have a positive effect on firm profitability.
H2b: Conservative short-term financing policies have a positive effect on firm profitability.

Previous studies analyze whether the gender of top managers affects firm profitability. However, the results are largely inconsistent. Some find no relationship between the gender of top managers and profitability (Baliy and Ngakwe, 2017; Du Rietz and Henrekson, 2000; Lam, McGuinness and Vieito, 2013). However, others demonstrate a significant relationship between the gender of top managers and firm profitability (Dezso and Ross, 2012; Gregory et al., 2013; Jurkus, Park and Woodard, 2011). There appears a difference in results, because profitability is not directly affected by the gender of top managers but the effect of policy choices of top managers. In turn – in the context of working capital management policies – female top managers' choice on working capital management policies can affect firm profitability. Thus, working capital policies likely play an important role in mediating the influence of female top managers on profitability. If a female top manager is likely to choose conservative working capital management policies and predictions show that conservative policies have a positive effect on firm profitability, we may formulate the following hypotheses:

H3a: Female top managers have a positive effect on firm profitability mediated by conservative current asset investment policies.
H3b: Female top managers have a positive effect on firm profitability mediated by conservative short-term financing policies.

Research Method

The sample for the study included all manufacturing firms listed on the Indonesian Stock Exchange (IDX). We left out several firms from our analysis in a certain year because of issues with data availability. Besides, several firms were further deleted, because they were newly listed on the IDX. The final sample included 571 firm-year observations that comprise 136 firms for five years in 2013–2017. We generated data from published financial statements from various sources, such as firms' official websites, the website of the Indonesian Stock Exchange (http://www.idx.co.id), and Thomson Reuters Eikon.

The following explains the research variables that consisted of (conservative/aggressive) working capital credit policies, gender, and firm profit. Conservative or aggressive current asset investment policies were measured with the following formula:

$$TCA/TA = \frac{TCA}{TA}$$

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in which TCA was the total current assets while TA – total assets. Previous studies (e.g., Adam et al., 2017) suggest that a low ratio (less than 0.5) indicates an aggressive investment policy. On the contrary, a ratio higher than 0.5 implies a conservative investment policy. Next, the following ratio measured the degree of conservativeness/aggressiveness of the financing policy in short-term liabilities:

$$TCl/TA = \frac{TCl}{TA}$$

in which TCL referred to total current liabilities. A low ratio (less than 0.5) indicated that a firm tends to have a conservative financing policy while a high ratio (more than 0.5) implied that a firm tends to use an aggressive financing policy.

Furthermore, gender (GEN) was a dummy variable that was equal to 1 if top managers were female and 0 if they were male. The study defined top managers as CEOs and CFOs (Chief Financial Officers) because CFOs were often directly involved with firms' financial policymaking. Lastly, Return on Asset (ROA) measured firm performance. The following is the formula to calculate ROA:

$$\text{ROA} = \frac{Net\ Income}{TA}$$

This study involved certain control variables so that the effects of independent variables on the dependent variable could be measured properly. The following are the results of the identification of several control variables that have been used in previous studies (Deloof, 2003; Sohail et al., 2016; Vahid, Mohsen and Mohammadreza, 2012):

Size = Ln TA

$$SG = \frac{St - St{-}1}{S{-}1}$$

$$LEV = \frac{TD}{TA}$$

$$TATO = \frac{NS}{TA}$$

in which SG was sales growth, S – sales, LEV – leverage, TD – total debt, TATO – total asset turn over, and NS – net sales.

This study used the following estimation models to investigate the gender-based difference in working capital management policies:

Model 1:

$$TCA/TA_{it} = \beta_0 + \beta_1 GEN_{it} + \beta_2 SG_{it} + \beta_3 SIZE_{it} + \beta_4 LEV_{it} + \beta_5 TATO_{it} + \varepsilon_{it}$$

Model 2:

$$TLA/TA_{it} = \beta_0 + \beta_1 GEN_{it} + \beta_2 SG_{it} + \beta_3 SIZE_{it} + \beta_4 LEV_{it} + \beta_5 TATO_{it} + \varepsilon_{it}$$

Meanwhile, the following models analyzed whether working capital management policies affect firm performance:

Model 3:

$$ROA_{it} = \beta_0 + \beta_1 TCA/TA_{it} + \beta_2 SALESGR_{it} + \beta_3 SIZE_{it} + \beta_4 LEV_{it} + \beta_5 TATO_{it} + \varepsilon_{it}$$

Model 4:

$$ROA_{it} = \beta_0 + \beta_1 TLA/TA_{it} + \beta_2 SALESGR_{it} + \beta_3 SIZE_{it} + \beta_4 LEV_{it} + \beta_5 TATO_{it} + \varepsilon_{it}$$

This study followed standard procedures in analyzing the data. It began with a descriptive analysis to indicate data distribution. Then, panel data regression tested the estimation model with steps commonly used in previous studies (e.g., Midesia, Basri and Majid 2016; Kassi et al., 2019; Junior and do Valle,2015). Initially, the study estimated the most appropriate panel data regression model between common effect, fixed effect, and random effect by using several tests, including the Chow Test, the Breusch-Pagan LM Test (LM Test), and the Hausman Test.

Meanwhile, the Sobel Test analyzed the mediating effect of working capital management policies on the influence of female top managers on firm profitability (Baron and Keny, 1986). According to MacKinnon (2008), the mediation effect exists if both coefficients are significant: both *a* (the effect of the independent variable to the mediator) and *b* (the effect of the mediator to the dependent variable). The Sobel Test was obtained by multiplying the coefficients *a* and *b* and, then, by dividing the result with the standard error of the two coefficients $S_{ab} = \sqrt{b^2S_a^2 + a^2S_b^2 + S_a^2S_b^2}$). In this study, the testing of the mediation effect also employed the variations of other Sobel Tests (Aroian Tests and Goodman Tests).

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Results

Descriptive Statistic

Table 1 shows descriptive statistics of working capital management policies, firm performance, and control variables. On average, the Indonesian manufacturing firms had the TCA/TA and TCL/TA ratios of 0.512 and 0.335, respectively. Thus, these firms tended to exhibit quite conservative investment policies and conservative working capital financing policies. Furthermore, firms managed to record profits (ROA) of 3.8%. Moreover, the number of female top managers varied from 2013 to 2017. Specifically, the proportion of female CEOs in 136 manufacturing firms shifted from 22.79% to 31.62%. The number was slightly higher for female CFOs, whose proportion changed between 27.21% to 30.88%.

Table 1. Descriptive Statistic

	Mean	Std Dev	Skewness	Kurtosis
TCA/TA	0.512	0.191	-0.134	-0.691
TCL/TA	0.335	0.419	8.049	78.063
ROA	0.038	0.102	0.832	7.356
SIZE*	61163856.000	25288.675	8.560	81.267
Growth	0.100	0.881	16.306	318.711
TATO	1.055	0.743	3.668	25.075
LEV	0.585	0.743	5.120	34.750
	2013–2017	%total		
Female CEO	31–43	22.794–31.617		
Female CFO	37–42	27.206–30.882		

Note * = in millions IDR.
Source: own elaboration.

As suggested by Table 2, the correlation test informs us that the working capital investment policy positively correlates with the characteristics of firm management and firm performance. On the contrary, financing policy choices are negatively correlated with the characteristics of firm management and firm performance. The low correlation coefficient between independent variables and control variables indicates that there is no serious multicollinearity problem. As an exception, an independent

variable (TCL/TA) shows a relatively high correlation score with the control variable (LEV) with a coefficient correlation of 0.789.

Table 2. Correlation Matrix

	1	2	3	4	5	6	7	8	9
1. TCA/TA	1	0.128 (0.002)	0.151 (0.001)	-.106 (0.11)	0.301 (0.000)	-0.094 (0.25)	-0.021 (0.612)	0.377 (0.000)	-0.055 (0.190)
2. TCL/TA		1	-0.028 (0.528)	-0.099 (0.190)	-0.171 (0.000)	-0.060 (0.155)	-0.040 (0.338)	0.204 (0.000)	0.789 (0.000)
3. CFO			1	0.055 (0.224)	0.009 (0.846)	0.061 (0.175)	0.063 (0.158)	0.022 (0.630)	0.026 (0.564)
4. CEO				1	0.039 (0.49)	0.046 (0.275)	0.054 (0.196)	0.049 (0.242)	0.077 (0.067)
5. ROA					1	0.083 (0.047)	0.041 (0.324)	0.215 (0.000)	0.009 (0.846)
6. SIZE						1	-0.012 (0.781)	-0.053 (0.205)	-0.022 (0.603)
7. Growth							1	-0.018 (0.670)	-0.031 (0.458)
8. TATO								1	0.103 (0.242)
9. LEV									1

Note: the value in parentheses is the p-value.

Source: own elaboration.

Regression Analysis

The Chow, Hausman, and Lagrange Multiplier Tests were run to determine the appropriate estimation regression model for the panel data test. Chow test compared the common effect and fixed effect regression model. If we observed that the common effect was better than the fixed effect, then the analysis continued with the Lagrange Multiplier Test to investigate whether the common effect was better than the random effect. Meanwhile, if the Chow Test indicated that the best estimation model was the fixed effect, then the analysis used the Hausman Test to select between fixed effect and random effect. The tests on the four estimation regression models demonstrate that the fixed effect is the best estimation model for model 1, while the random effect is appropriate for model 2, 3, and 4.

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Table 3. Panel Data Regression Model Test

Test	Prob.	Best Estimation Model
Model 1		
Chow Test	0.000	Fixed Effects
Hausman Test	0.003	Fixed Effects
Model 2		
Chow Test	0.000	Fixed Effects
Hausman Test	0.140	Random Effect
Lagrange Multiplier Test	0.000	Random Effect
Model 3		
Chow Test	0.000	Fixed Effects
Hausman Test	0.157	Random Effect
Lagrange Multiplier Test	0.000	Random Effect
Model 4		
Chow Test	0.000	Fixed Effects
Hausman Test	0.320	Random Effect
Lagrange Multiplier Test	0.001	Random Effect

Source: own elaboration.

The results of hypothesis testing appear in Table 4. In model 1, the model predicts 44.7% variation in dependent variables (current assets investment policy). As displayed by Model 1, our hypothesis tests demonstrate that only CFOs' gender (as a component of top managers' gender) has a significantly positive effect on working capital management policies (coefficient = 0.049, prob. 0.015 < 0.05). The figures indicate that female CFOs are associated with conservative working capital investment policies. Thus, the results support part of the first hypothesis H1a. Meanwhile, the analysis of financing policies shows different results. In model 2, the model predicts 64.70% of the variation in the dependent variable (short-term financing policy). Although the relationship between female CFOs and short-term working capital financing policies shows a negative coefficient, the coefficient is insignificant (coefficient= -0.002, prob. 0.883 > 0.05). These results do not empirically support the fact that female CFOs are more likely to choose conservative short-term financing policies than male CFOs.

The findings imply that both female and male CFOs of Indonesian manufacturing firms choose long-term financing to meet both short and long-term investment needs

to reduce liquidity risk or the uncertainty of interest expense from short-term financing, especially from non-spontaneous financing such as bank loans that easily changes as a response to the market average interest rate.

Table 4. Hypothesis Testing

Variable	Coefficient	Prob.
Model 1	DV = short-term investment policy IV = Female top manage	
CEO	0.012	0.669
CFO	0.049	0.015
Growth	-0.012	0.143
Log (Size)	-0.009	0.774
Lev	0.001	0.517
Tato	0.094	0.000
C	0.402	0.000
R^2= 0.447	Adjust R^2 = 0.295	F-tets= 2.951
Model 2	DV = short-term financing policy IV = Female top manage	
CEO	0.028	0.275
CFO	-0.002	0.883
Growth	-0.006	0.448
Log (Size)	0.680	0.000
Lev	-0.004	0.011
Tato	0.053	0.000
C	-0.045	0.127
R^2= 0.647	Adjust R^2 = 0.643	F-tets= 160.174
Model 3	DV = ROA IV = Short-term investment policy	
TCA/TA	0.122	0.000
Growth	0.006	0.036
Log (Size)	0.007	0.000
Lev	-0.056	0.000

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Tato	0.025	0.001
C	-0.102	0.001
$R^2 = 0.133$	Adjust $R^2 = 0.125$	F-tets= 17.405
Model 4	DV = ROA IV = Short-term financing policy	
TCL/TA	0.029	0.197
Growth	0.005	0.071
Log (Size)	0.007	0.000
Lev	-0.078	0.000
Tato	0.0313	0.000
C	-0.048	0.101
$R^2 = 0.107$	Adjust $R^2 = 0.099$	F-tets= 13.486

Source: own elaboration.

The last two models were used to predict the effect of working capital management policies on profitability. Model 3 predicts 13.3% of the variation in the dependent variable (profitability). The results show that investment policies in working capital positively affect firm performance (coefficient= 0.122, prob. 0.000 < 0.01). Therefore, the results support hypothesis H2a. Whereas Model 4 predicts 10.7% of the variation in the dependent variable (profitability). The results demonstrate that short-term financing policies (conservative) do not have a significant effect on firm profitability (coefficient = 0.029, prob 0.197 > 0.1). Furthermore, we conducted additional tests in relation to the effect of each working capital component on firm profitability. Table 5 displays the results of the additional test.

Table 5. The Results of the Additional Test

Model 3		
Cash	0.386	0.000
Account Receivable	0.170	0.000
Inventories	0.170	0.001
Prepaid Expenses	0.011	0.841
Other CA	0.386	0.000

Source: own elaboration.

Table 5 suggests that working capital components such as cash (coefficient= 0.386, prob 0.000 < 0.01), receivables (coefficient= 0.170, prob 0.000 < 0.01), and inventories (coefficient= 0.170, prob 0.001 < 0.01) significantly affect firm performance. Thus, these three working capital components positively affect firm performance. Higher levels of cash, receivables, and inventories likely enhance firm performance. The results of the additional test confirm the hypothesis that more investments in working capital (conservative working capital investment policies) enhance firm performance. By ensuring the availability of cash, firms will not encounter difficulties in repaying their due liabilities. Consequently, firms could maintain good relationships with their suppliers. Sufficient cash flows also enable firms to follow up with promising investment opportunities. Furthermore, when firms have sufficient inventories, they are less likely to experience stock-out that disrupts the production process and even sales realization. Besides, firms can opt for increasing their receivables to increase their sales. In general, firms can enhance their performance by increasing their investments in working capital.

Sobel Test

Next, the study tested the hypothesis H3a of the role of working capital management policies in mediating the influence of female top managers on profitability. Since conservative short-term financing policies did not significantly affect profitability, the mediation test was only performed for conservative asset investment policies, and the results are presented in Table 6.

Table 6. Test of the Mediation Effect

	T-Test	Std-Error	p-value
Sobel test	2.126	0.003	0.033**
Arorian test	2.084	0.003	0.037**
Goodman test	2.171	0.003	0.030**

Notes : *** significant at 1%, ** at 5%, and * at 10%.
Source: own elaboration.

Table 6 shows the significant results of the Sobel test (prob. 0.033 <0.05), similar to the results of other Arorian Sobel Test variations (prob. 0.037 <0.05) and Goodman Test (prob. 0.030 <0.05). Thus, conservative current asset investment policies significantly mediate the positive influence of female top managers on profitability, which supports hypothesis H3a. The choice of working capital management policies of female

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top managers (CFO) who tend to invest more in current assets would ultimately affect a firms' ability to increase profits.

Discussions and Conclusions

This study aims to investigate gender-based different preferences for working capital management policies and their impact on firm performance. Using Indonesian manufacturing firms as a case study, we empirically show that only female CFOs are more likely to implement conservative investment policies in working capital than male CFOs. These results were also in line with the upper echelons theory (Hambrick and Mason, 2013), which proposes that individual characteristics like gender play an important role in corporate decision-making. Furthermore, the study also finds that female CFOs who implement conservative working capital management policies tend to invest more in current assets. A higher proportion of current asset investment usually aims to safeguard firms from liquidity and stock-out risks. These findings may be associated with the characteristics of female top managers that indicate female executives are more cautious in making decisions and tend to avoid risks (Adams and Funk, 2012; Faccio et al., 2016; Yu et al., 2017), as women are less likely to exhibit overconfidence than man (Barber and Odean, 2001; Huang and Kisgen, 2013).

We also demonstrate that conservative investment policy choices in working capital affect firm profitability. More conservative investment policies in working capital are likely to increase firm profitability. These results imply that more conservative investment policies in working capital (as indicated by a higher TCA/TA ratio) increase firm performance. These findings support previous research that shows conservative working capital investment policies as positively influencing profitability understood as one of the company's performance indicators (Khanqah et al., 2012). Furthermore, we provide evidence that female CFOs have a positive influence on firm profitability through working capital management policies.

In sum, the study provides empirical evidence that offers both academic and managerial contributions. First, this article broadens the working capital management policy literature by including a new dimension that has not been widely discussed, namely the gender of top managers. The findings also demonstrate that female executives, especially those in Indonesian manufacturing firms, tend to implement conservative working capital investment policies. Thus, this study supports previous literature that suggests women tend to follow more conservative financial policies than men. Second, this study provides empirical evidence that conservative working

capital management policies are chosen by female top managers to enhance firm profitability.

Based on the findings, this study offers practical implications. First, managers of manufacturing firms should invest more in current assets, because more conservative current asset investment policies likely increase profitability. However, the managers have to balance these policies with a better ability to manage efficient cash conversion cycles. Second, manufacturing firms that aim to use conservative investment policies to enhance their profits provide better opportunities for women to hold CFO positions. Third, the results are useful to investors, as they suggest that CFO gender allows one to predict manufacturing firms' profitability and use it as a performance indicator. Fourth, the study advises creditors and suppliers who cooperate with manufacturing firms to base their decisions on the gender composition of the firms' top managers.

The study empirically demonstrates that firms with female top managers tend to assume conservative working capital management policies, which manage to increase profitability. However, this study does not analyze whether conservative policies also reduce liquidity risk, so it does not inform whether conservative investment policies of manufacturing firms result in a trade-off between liquidity (risk) and profitability (return). Moreover, we have operationalized the presence of female top managers using a dummy variable. Because top managers' decisions are collective, including related to working capital management policies, further analysis needs to use the percentage of female top managers as a proxy for female top managers. Studies that address the limitations of this study will arguably offer a useful contribution to the literature.

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