



CEO MACHIAVELLIANISM AND STARTUP PERFORMANCE: UPPER ECHELONS THEORY'S PERSPECTIVE

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ARTICLE INFO	ABSTRACT
<i>Article History:</i> Received: Revised: Accepted: Available Online:	<i>Startups are important for economic growth and prosperity. Since they are led by their chief executive officers (CEOs) and particularly the tech-startups deal in a dynamic environment which asks for strategic flexibility and consideration of environmental changes for superior firm performance. Considering the importance of the issue, the present study attempted to examine the role of CEO's Machiavellian personality trait in determining firm performance. Additionally, the mediating role of strategic flexibility between the association of CEO Machiavellianism and firm performance was also tested. Moreover, the moderating role of environmental dynamism was also tested between the relationship of CEO Machiavellianism and strategic flexibility. Data were collected from CEOs of startups and subjected to PLS-SEM for data analysis. The results of the study revealed that CEO Machiavellianism is not significantly associated with firm performance, however, the relationship between Machiavellianism and firm performance was significantly mediated by strategic flexibility. Additionally, results also revealed that environmental dynamism is a significant moderator between the relationship of Machiavellianism and strategic flexibility.</i>
<i>Keywords:</i> Startups, Dark Triad, Strategic Flexibility, Firm Performance, Startup Performance	
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1. INTRODUCTION

Startups are important for the welfare and growth of society and the economy. They are considered vital for providing job opportunities to individuals and also emerged as a new area of economic activity. They are important as they share the burden of providing jobs to the individuals residing in a country (Davila, Foster, He, & Shimizu, 2015). Startups are also playing an important role in the economy of Pakistan. Outstanding changes have been witnessed about startups in Pakistan and it is expected that the country may grow at a growth rate of 6% through to 2026 (Atique, 2020).

Besides the economic growth, Pakistan is also growing rapidly at digital consumption. For instance, telecom subscribers have reached 164 million individuals out of which 35% of subscribers have access to 3G and 4G. The recent three years showed extraordinary growth and reached 74 million 3G/4G subscribers (Atique, 2020). These indicators show that the population in Pakistan is rapidly adopting technology and great potential for tech-startups in Pakistan. Accordingly, tech-startups are increasingly established in Pakistan. Notably, Pakistan is one of the

rapidly growing countries in Asia and 720 startups have been established since 2010 in Pakistan out of which 67% are still in operation (Partington, 2020).

Startups are growing and they are providing job opportunities to individuals and also empowering women. However, according to Malik (2018), almost 300 startups are launched but 5 of them found to be sustainable. It is a clear indication of some issue with the startups due to which they are failing. In this regard, the present study has considered the role of CEOs in determining their success or failure. Machiavellianism is one of the personality traits which can positively contribute towards better firm performance. CEO personality approach is followed in the study as it is difficult to measure the cognition (Hambrick & Mason, 1984). It is an important predictor of startups' performance as they are led by their CEOs so how they think, and lead matters a lot for startups. It is a significant contribution to the literature on firm performance.

It is worthy to note that tech-industry is attributed to a dynamic working environment where changes are happening rapidly. Organizations are required to be strategically flexible to cope with the changing environment. CEOs are required to develop strategies that are flexible and lead to superior performance. Strategic flexibility is the ability to adapt and respond to environmental changes (Cingöz, Akdoğan, & Sciences, 2013). It facilitates an organization to switch or alter the strategy aimed at to have superior performance, competitive advantage, and more importantly survival in the dynamic environment. Previously studies have established that the CEO approach determines the policies of an organization (Nadkarni & Narayanan, 2007) later on translating into firm performance.

While developing strategic flexibility, CEOs are required to understand and consider environmental dynamism. It results in rapid changes in the environment which challenge the organizations regarding their strategy and approach (Zand & Rezaei, 2020). Hence, it becomes necessary to study the environmental dynamism in the context of startups so that they can perform better. CEO personality traits are widely studied but little attention has been paid to Machiavellianism despite its prevalence (Nsehe, 2011). Another CEO personality trait such as narcissism is widely studied which may lead towards potential dominance of one personality trait while ignoring the other personality traits such as Machiavellianism (Chandler, Petrenko, Hill, & Hayes, 2020). Additionally, they also contended that in the literature of psychology and



organizational behavior, Machiavellianism is less studied regarding its benefits as compared to other CEO personality traits. Moreover, CEO traits are widely used to predict firm performance and used Upper Echelon Theory (UET), however, how the personality attributes influence the firm performance is relatively less known. It is not fully explored that how and why CEO personality traits influence the firm performance (Smith, Hill, Wallace, Recendes, & Judge, 2018). It is important to study the process as it enables CEOs to understand and focus on specific factors leading to higher firm performance. Accordingly, the present study has considered strategic flexibility as a mediator between the relationship of CEO personality traits and firm performance. Additionally, the study is in the context of software startups so it seems to be a valuable construct to be studied in light of a highly dynamic business environment. Hence, the study objective is to examine the role of CEO personality trait towards performance along with mediation of strategic flexibility. Additionally, it also aimed to investigate the environmental dynamism as a moderator between relationship of CEO Machiavellianism personality trait and strategic flexibility. Following sections explain literature review, research methods, results, discussion, and future directions.

2. LITERATURE REVIEW

2.1. Theoretical Background

Cognitive biases, beliefs, and personality attributes of a leader influences the course of action of an organization. The study emphasizes the personality attributes of CEOs and finds its routes in Upper Echelon Theory (UET). The theory holds that the performance of an organization is primarily dependent on the efficiency and efforts pulled together by those who lead it i.e. CEOs (Hambrick & Mason, 1984). As per the theory performance of an organization can be attributed to CEOs since they shape the strategies to be followed for the well-being of an organization. CEOs' vision, their perception, and how they perceive the environment shape the firm performance such that their coping style results in strategic flexibility leading towards the organizational performance. The theory also argues that human capacity is limited to access and process the information due to which the personality traits of CEOs matter a lot in determining the strategic

flexibility and firm performance (Rono, 2018). The following section provides details about the hypothesis development.

2.2. Machiavellianism and Firm Performance

Machiavellianism is one of the Dark Triad traits of leaders. These leaders tend to show a tremendous response towards the situational factors and seem to be the more participative leader in adverse working conditions (Furtner, Maran, & Rauthmann, 2017). These attributes are highly recommended for a leader in startups as this industry is highly dynamic and needs a leadership style that can cope with the unpredictability of the external environment. The leader's quest for self-promotion, status, and dominance urges them to strive for better performance ultimately leading towards higher firm performance. Previously studies have demonstrated a positive relationship between Machiavellianism and firm performance. According to Recendes, Aime, Hill, and Petrenko (2018) Machiavellianism is a significant predictor of firm performance. A leader with such personality attributes results in higher firm performance as they tend to get engaged in activities that can provide them with higher prestigious status among others. Accordingly, it is expected that when such leaders lead an organization, they tend to set higher objectives as they wanted to be prominent among others ultimately ending up in higher firm performance. From a theoretical perspective, leadership personality traits are important in determination for having better organizational outcomes. According to UET, CEO personality traits predict the firm performance because they respond to the environment and design the course of action as per their personality traits. So, it is hypothesized that:

H₁: Machiavellianism is positively and significantly associated with firm performance.

2.3. Machiavellianism, Strategic Flexibility, and Startup Performance

UET theory holds that CEOs play a key role in shaping the strategic flexibility of an organization and they do this by defining the vision, values, and strategy (Shimizu & Hitt, 2004). When it comes to decisions about the strategic choice of a firm then the key decisive position is held by the CEOs due which their behaviors and personality attributes influence their strategic choice (Elenkov & Manev, 2005). Being at the top management position and having powers they decide about the



strategic choice of firms. In this regard, it is stated that when leaders are aspirants of dominance, appraise and prominence among others they tend to challenge the status quo by shaping the more flexible strategies so organizations can cope with the environmental changes.

From an attributes perspective, Machiavellians look for the leading positions where they can manage the things around (Furtner et al., 2017) and plays a vital role in these positions. Additionally, they tend to be participative during adverse conditions and highly responsive as well (Drory & Gluskinos, 1980). They also seem to be inclined towards starting a new business venture (Hmieleski & Lerner, 2016). Since, small scale businesses are more flexible as compared to large scale businesses so leaders with such promising attributes may lead towards higher strategic flexibility (Carre & Jones, 2016). Notably, these leaders tend to explore and exploit opportunities (Forsyth, Banks, & McDaniel, 2012) so they are expected to result in greater strategic flexibility of an organization. Hence, consistent with the UET, it is hypothesized that:

When it comes to attaining competitive advantage and higher firm performance, strategic flexibility seems to be an important tool for it being an ability to respond to the environmental changes (Li, Zhan, & Lu, 2016). Organizations by focusing on strategic flexibility tend to refine their resource allocation so they can meet the existing organizational needs along with exploring and exploiting the new opportunities. Moreover, strategic flexibility facilitates an organization to meet the current needs of business and adapt to the ongoing changes ultimately leading towards higher firm performance. In this regard, Li et al. (2016) collected data from the senior managers in China. Their study findings revealed that strategic flexibility positively contributes to firm performance.

Additionally, it is worthy to mention that strategic flexibility plays a significant role in seeking higher quality products and services along with enabling the quest for the improvement in human and technological resources. The strategic flexibility allows a firm to find, create, attain, and retain the resources for sustained firm performance. Organizations with greater strategic flexibility tend to have better strategic decisions and choices ultimately leading towards positive outcomes such as increased performance by ensuring that the organization is effectively dealing with the upcoming challenges (El-Hindawy & Alamasi, 2014). UET theory also supports the relationship between strategic flexibility and firm performance. According to UET (Hambrick & Mason, 1984)

strategic choices by a firm drive the firm's performance. It can be stated that when organizations are significantly changing their direction and allocation of resources in line with the changing environment and business needs, they tend to be strategic flexible. Thus, it is expected that strategically flexible organizations tend to have better performance due to their enhanced ability to cope with the environmental changes. It is hypothesized that:

It is worthy to note that firms undergo different adverse situations that are not fully controllable and they have to adapt their orientation according to the ongoing situation. Their adaptability is dependent on their strategic flexibility. Whereas strategic flexibility is determined by the managers which ultimately influence firm performance (Juravich, 2012). Based on these arguments it is asserted that CEOs take the decision and design the strategy which is primarily influenced by their personality traits and ultimately influences their firm performance. It is also in line with UET theory which argues that CEO personality traits influence their course of action and ultimately firm performance. UET theory not only focuses on the leader's personality traits in determining the firm performance but, also pays considerable attention to the strategic choices made by leaders in the determination of the firm performance. In this regard, Hambrick and Mason (1984) contended that leaders' values and cognitive base determine their strategic choices. They also contended that the personality traits of CEOs influence their strategic choices which in turn shape the firm performance (Li et al., 2016). Based on the above arguments it is hypothesized that:

H₂: Strategic Flexibility is a positive significant mediator between the relationship of Machiavellianism and firm performance.

2.4. Moderating Role of Environmental Dynamism

Environmental dynamism denotes the frequently unpredictable external environment (Dess & Beard, 1984). A highly dynamic environment denotes a highly unpredictable environment and includes rapid changes. Organizations must adhere to such environments to survive and have sustained performance. Accordingly, a leader is also asked to be sensitive towards the environment so he/she can consider the role of the environment while taking decisions (Wallace, Little, Hill, & Ridge, 2010). When a leader tends to be more sensitive towards the environment, he/she considers the environmental influence on the organization and be more strategically flexible. It is worthy to



note that uncertain environment, competition, complexity, globalization, and changes in technologies are playing a key role in influencing organizational performance. Under these circumstances, it becomes necessary to consider the environment when deciding about the organizational policies (Felipe, Leidner, Roldán, & Leal-Rodríguez, 2019). Since a CEO decides about the organizational policies and working so their role cannot be ignored. Under these circumstances, they are asked to develop the strategies while considering the environmental factors as changes in the external environment can also influence the organizational policies to influence its performance (Zand & Rezaei, 2020). A leader who is opportunistic, exploitative, active, dominant, seeks praise and prestige, and also responsive to the external environment can productively utilize the environmental dynamism while deciding about the policies. Hence, it is hypothesized that:

H₃: Environmental dynamism is a positive significant moderator between the relationship of Machiavellianism and strategic flexibility such that the association will be stronger when environmental dynamism levels are higher.

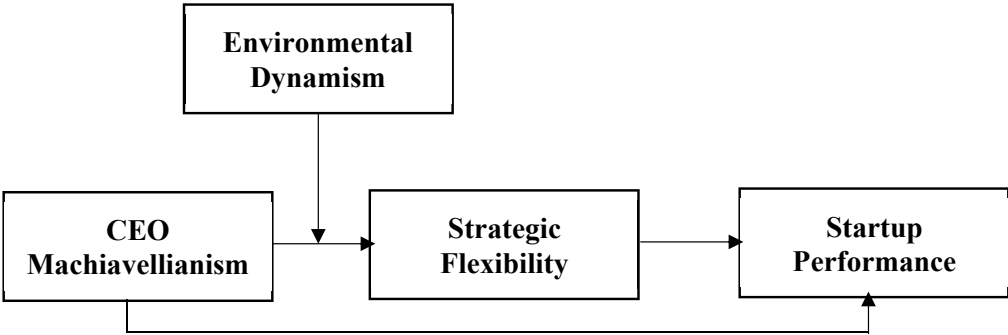


Figure I: Conceptual Model

3. METHODS

3.1. Research Context and Participants

The present research study attempted to examine the influence of CEO Machiavellianism personality trait on firm performance. The study also considered the mediating role of CEO Machiavellianism and firm performance. Additionally, the moderating role of environmental dynamism was also tested between the relationship of Machiavellianism and strategic flexibility. The study is designed for software development startups with an organizational unit of analysis. The population of the study was CEOs of software development startups established by Pakistani residents and maybe an association of persons or a company (Finance Act, 2017) and have got registered with Pakistan Software Export Board (PSEB; Finance Act, 2017). Additionally, providing the software development services and/or Software as a Services (SaaS) regardless of sectorial categorization and/or exporting to other countries (Finance Act, 2017). Finally, doing the business for 8 years or younger (Zhang & Li, 2010) with 100 or less than 100 employees (Wilhelm, 2014). But startups younger less than 2 years were not included in the study.

The above-mentioned criteria resulted in a total of 174 software houses. For finite population Yamane (1973) formula used for sample size calculations (Sarmah & Hazarika, 2012). The sample size for the present study is 121 at $\pm 5\%$. Following is the formula

$$n = \frac{N}{1 + N(e)^2}$$

In this formula n = Sample size; N = Total population; e =Precision level

$$n = \frac{174}{1 + 174(.05)^2}$$

As per calculations sample size is 121 respondents. Kotrlik and Higgins (2001) argued that the sample size should be at least 20% of the whole population. According to Hair, Ringle, and Sarstedt (2011), 100 is the minimum sample size when there are five or fewer constructs in the model. So, the sample size of the study is adequate. Additionally, the sample size was inflated by 30% to consider the non-response from respondents. Thus, 157 questionnaires were distributed among the respondents out of which 107 valid response were used for data analysis.

3.2. Measures



A survey was used for data collection from respondents. The questionnaire consisted of two sections where one section collected responses about the demographic information of the respondents and the second section collected the responses about the questions related to variables under study. All the questionnaires were adapted from the previous studies the details of which are as follows; Machiavellianism was measured by adopting a nine-item scale (Jones & Figueredo, 2013), strategic flexibility was measured by adopting five items scale (Grewal & Tansuhaj, 2001), environmental dynamism was assessed by using four items (Jaworski & Kohli, 1993; Miller & Friesen, 1982). Finally, 10 items scale was used to measure the firm performance (Stam & Elfring, 2008). All of the measures were assessed at Point 5 Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

4. RESULTS

Collected data were subjected to PLS-SEM for data analysis. PLS-SEM suited the present study since its purpose is not to develop a new theory rather it attempted to test the theory. Accordingly, PLS-SEM is regarded as a powerful tool for prediction or relationship explanation between variables (Hair, Hult, Ringle, & Sarstedt, 2016). Additionally, it is a non-parametric software due to which it does not necessarily ask for the data normality and can handle complex models as well (Hair et al., 2016). Since the study model is also complex so it seemed to be a better tool to analyze the data. First of all, the measurement model was assessed and later on, the structural model was assessed. The following section provides detail about the measurement and structural model assessment.

4.1. Common Method Bias

When data is collected from a single source, there are chances of common method bias. It may mislead the study findings. Accordingly, Kock (2015) argued that a full collinearity test may be utilized for the assessment of common method bias while using the PLS-SEM. Additionally, the author also put forward that Variance Inflation Factor (VIF) can be used for identification of common method bias. As per the parameters, the values of VIF greater than 3.3 and less than 3.3 represent the presence and absence of the common method bias respectively. As per the findings

reported in table 1 all of the values are less than 3.3. Hence, the study is free from common method bias.

Table 1: Variance Inflation Factor

	Firm Performance	Strategic Flexibility
Environmental Dynamism		1.441
Machiavellianism	1.336	1.199
Strategic Flexibility	1.336	

4.2. Measurement Model Assessment

Confirmatory Factor Analysis (CFA) was performed for measurement model assessment. It presented the statistics about convergent and discriminant validity. Convergent validity reveals that each item in a measure is representing its variable. According to Hair et al. (2010) factor loadings, composite reliability and average variance extract are the parameters for the convergent validity assessment. Table 2 shows statistics about factor loadings, composite reliability, and average variance extract.

Table 2: Confirmatory Factor Analysis

Constructs	Items	Loadings	Alpha	CR	AVE
Environmental Dynamism	ED2	0.764	0.649	0.812	0.594
	ED3	0.893			
	ED4	0.633			
Firm Performance	FP1	0.67	0.866	0.892	0.51
	FP2	0.699			
	FP3	0.615			
	FP4	0.652			
	FP7	0.773			
	FP8	0.789			
	FP9	0.78			
	FP10	0.713			
Machiavellianism	M1	0.873	0.859	0.913	0.777



Strategic Flexibility	M2	0.907	0.842	0.892	0.681
	M4	0.864			
	SF2	0.894			
	SF3	0.916			
	SF4	0.877			
	SF5	0.563			

Table 2 shows the values about ‘factor loadings’, ‘composite reliability (CR)’, and ‘average variance extract (AVE)’. if the factor loading of an item is greater than 0.5 then it adds to the convergent validity of measurement (Hair et al., 2011). As per table 2, all of the factor loadings are greater than 0.5. On the other hand, values of CR and AVE should be greater than 0.8 and 0.5 (Barclay, Higgins, & Thompson, 1995). Table 2 shows that CR value for environmental dynamism, firm performance, Machiavellianism, and strategic flexibility is 0.812, 0.892, 0.913, and 0.892 respectively. Moreover, AVE values for environmental dynamism, firm performance, Machiavellianism, and strategic flexibility are 0.594, 0.51, 0.777, and 0.681. All the values presented in Table 2 shows that all the parameters are met. Hence, convergent validity is established.

4.3. Discriminant Validity

Discriminant validity ensures that variables are different from each other. Previously, the Fornell-Larcker criterion was predominantly used for the assessment of the discriminant validity. Recently, Henseler, Ringle, and Sarstedt (2015) presented a new parameter for discriminant validity assessment and named it a Heterotrait-Monotrait Correlation Ratio. They contended that Fornell – Larcker criterion is effective in detecting the presence of discriminant validity, however, it does not detect the absence of discriminant validity. Therefore, the study used the HTMT for discriminant validity. All values in the HTMT table must be less than 0.85 to establish discriminant validity (Gold, Malhotra, and Segars, 2001). As per table 3, all values are less than 0.85, hence, HTMT is established.

Table 3: Discriminant Validity (HTMT Ratio)

	Environmental Dynamism	Firm Performance	Machiavellianism	Strategic Flexibility
Environmental Dynamism				
Firm Performance	0.268			

Machiavellianism	0.409	0.397		
Strategic Flexibility	0.778	0.602	0.544	

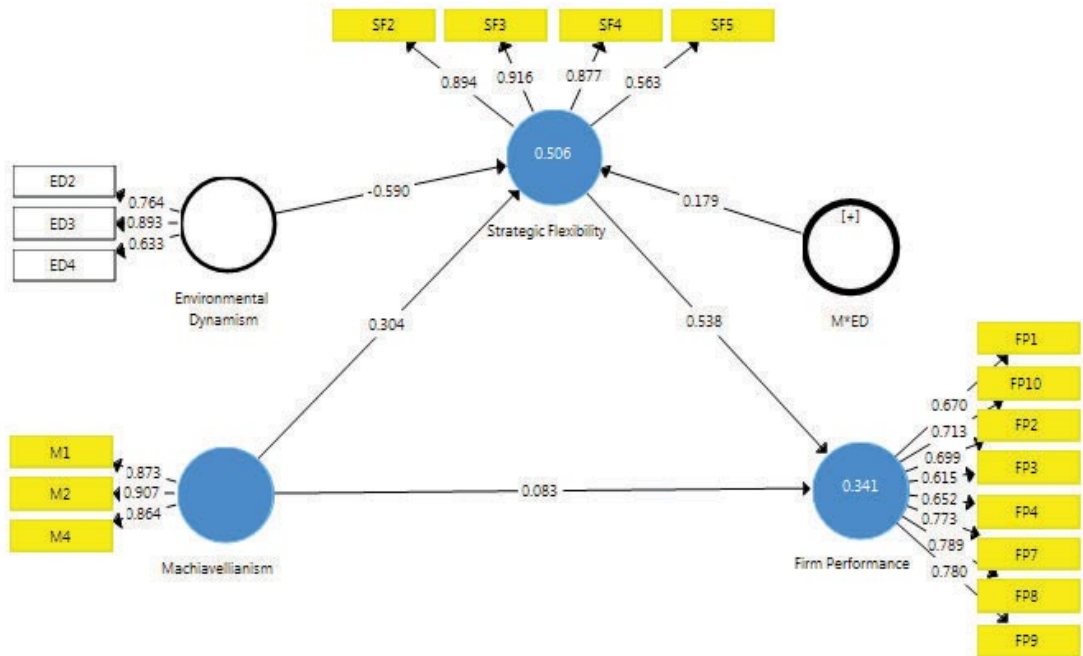


Figure 2: Measurement Model Assessment

4.4. Structural model assessment

Once the convergent and discriminant validity has been established then the structural model was tested. The relationship direction was measured by using their coefficients, t values, and p values were used to assess their significance. The bootstrapping procedure was used to test the direct and indirect effects between the variables (Ringle, Wende, & Will, 2005).

Table 4 shows the direct relationships between variables. As per table 4 relationship between Machiavellianism and firm performance is not significant ($\beta = 0.083$, $t = 0.676$; $p < 0.25$), thereby, hypothesis H1 is not supported by the results of the study. Moreover, results show a significant relationship between Machiavellianism and strategic flexibility ($\beta = 0.304$, $t = 4.026$; $p < 0.05$). As



per results in presence of Machiavellianism leader strategic flexibility of an organization tends to increase significantly. Finally, results also put forward that strategic flexibility positively contributes towards the firm performance ($\beta = 0.538$, $t = 5.087$; $p < 0.05$).

Table 4: Path Analysis

Relationships	Beta	SD	T Values	P Values	Decision
Machiavellianism -> Firm Performance	0.083	0.123	0.676	0.25	Unsupported
Machiavellianism -> Strategic Flexibility	0.304	0.075	4.026	0	Supported
Strategic Flexibility -> Firm Performance	0.538	0.106	5.087	0	Supported

Table 5 shows the specific indirect effects of the research model. As per the results reported in table 5 strategic flexibility is a significant mediator between the relationship of Machiavellianism and firm performance ($\beta = 0.163$, $t = 2.945$; $p < 0.05$). Structural equation modeling results are presented in figure 3.

Table 5: Specific Indirect Effects

Relationships	Beta	SD	T Values	P Values	Decision
Machiavellianism -> Strategic Flexibility -> Firm Performance	0.163	0.055	2.945	0.002	Supported

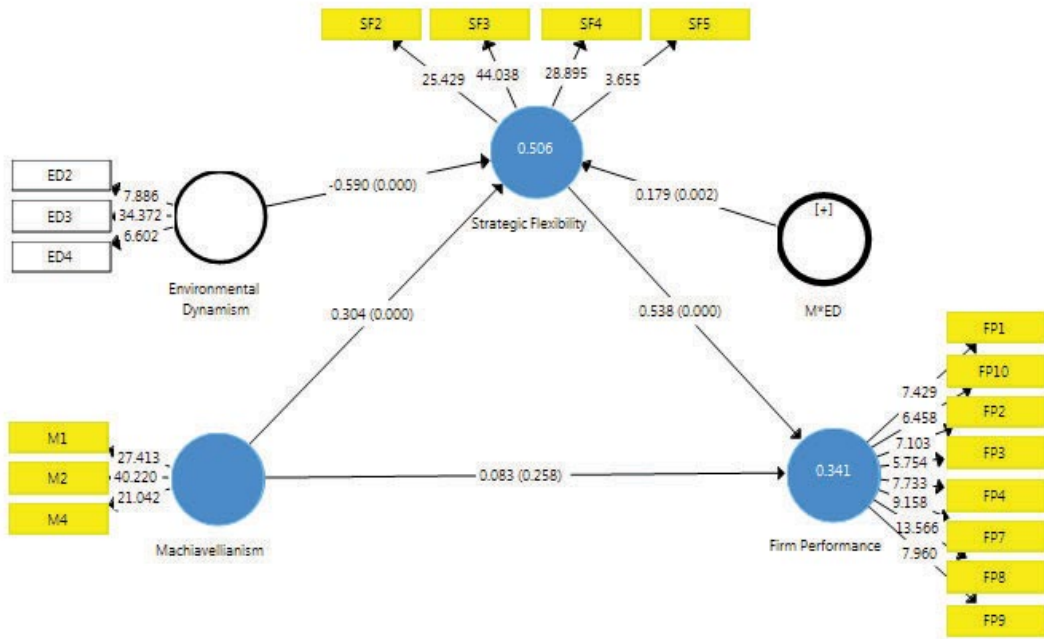


Figure 3: Structural Model Assessment

Table 6 shows the moderation results. As per the findings reported in table 6 environmental dynamism significantly moderates the relationship between Machiavellianism and strategic flexibility. Figure 4 shows the moderation.

Table 6: Moderation Analysis

Relationships	Beta	SD	T Values	P Values	Decision
M*ED -> Strategic Flexibility -> Firm Performance	0.096	0.042	2.312	0.011	Supported

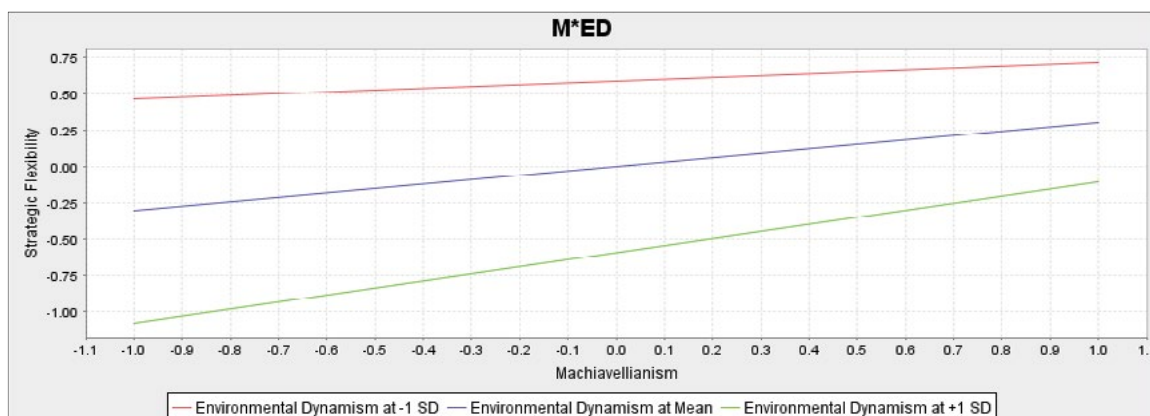


Figure 4: Simple Slop Analysis

5. DISCUSSION

The present study attempted to examine the relationship between Machiavellianism and firm performance. In this regard study hypothesized that Machiavellianism positively influences firm performance. Data analysis revealed that Machiavellianism and firm performance don't have a significant relationship. The study results are not in line with the previous results. This may be because these leaders work their ambitions and try to accomplish their goals due to which the firm performance may reduce (Gürlek & Behavior, 2020). Thus, hypothesis H1 is rejected based on the results provided in the results section.

Additionally, the study also hypothesized that Machiavellianism CEO Personality trait positively influences strategic flexibility. The results of the study revealed a positive relationship between Machiavellianism CEO Personality traits and strategic flexibility. The study findings are in line with previous studies. For instance, Chung (2017) in a study contended that such leaders can utilize their skills to manipulate and take advantage of others. Additionally, these leaders can potentially manipulate the people and situations in their favor to gain personal success and the respect of others. While doing so they may mold the strategies which favor them inconsistent with the dynamic environment.

In the interest of studying strategic flexibility study hypothesized that strategic flexibility positively mediates the relationship between Machiavellianism and firm performance. The study results put forward strategic flexibility as a positive significant mediator. Hence, hypothesis H1a is accepted. The findings of the study are in line with the UET (Hambrick & Mason, 1984), which holds that CEO personality, values, and cognition influence their strategic choices and ultimately firm performance. It is asserted that a leader who can create flexible strategies tend to have better firm performance as he/she can adapt to the ongoing situation. Hence, the study objective to determine the influence of Machiavellianism CEO Personality trait on firm performance through strategic flexibility mediation is partially accomplished. Finally, a moderating influence of environmental dynamism was also hypothesized between the relationship of Machiavellianism and strategic flexibility. The results of the study put forward environmental dynamism as a moderator, however, the influence of the moderator is not much stronger. Anyhow, the presence of environmental dynamism makes the relationship between Machiavellianism and firm performance strong.

5.1. Implications of Research

The study findings are beneficial for organizations to understand how the CEO personality traits influence the performance of an organization. Additionally, the findings also put forward that CEO personality attributes are important to understand in developing the strategic flexibility of an organization so it can cope with the dynamic environment and lead towards better firm performance. The present study has presented a process approach through which Machiavellianism influences the firm performance and presented the strategic flexibility as the reason why the performance of an organization increases in presence of Machiavellianism.

Environmental dynamism moderation means that when a CEO perceives that there is less flexibility from a strategic perspective then he/she may promote the environmental dynamics for the creation of a sense of crisis in an organization. Thus, it can serve as a positive factor in enhancing strategic flexibility and ultimately the firm performance. In presence of higher environmental dynamism organizations are required to be highly flexible in their strategies so they can cope with the ever-changing environment. It can be stated that the role of leadership towards strategic flexibility is regulated by environmental dynamism so it is recommended that CEOs must



consider environmental dynamism while deciding about the organizational strategies aimed at improving the firm performance.

5.2. Limitations and Future Directions

Although the study has accomplished its objectives and is a valuable contribution to literature. However, there are few limitations as well which can serve as a potential lead for future studies. For instance, the sample size of the current study is small future studies may consider a larger sample size for conducting the study. Additionally, a study has filtered out the software firms which are younger than 2 years and these startups seem to be more challenged with environmental dynamism as compared to CEOs who already gained experience in a dynamic environment. From a sample size perspective, future studies may also consider the social media marketing startups who are also offering the services of software and app development along with marketing services. From a time-zone perspective, future studies may consider mixed methods or longitudinal research design to have an in-depth view of the role of CEO personality traits and firm performance.

The present study has considered only one personality trait from dark triad traits. It is recommended that future studies may consider the role of Narcissism and Psychopathy as a predictor of firm performance. The combination of dark triad traits will enable the CEOs to understand which of the personality attribute is more suitable for having high firm performance. The strategy is a resource for the organization so future studies may underpin the current research framework by using Resource Dependent Theory.

6. CONCLUSION

The research study offered a theoretical model that explains how CEO personality traits influence strategic flexibility and firm performance. Although no direct relationship between Machiavellianism CEO and firm performance is supported by the study but the relationship was fully mediated by the strategic flexibility. It affirms that leaders who are ambitious and strive for dominance and self-respect may end up developing flexible strategies that can be altered with time and the demand of the external environment. Moderation results showed that startups dealing in a

highly dynamic environment tend to have higher strategic flexibility due to their leader's personality attributes.



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