

The Impact of Sun-Tzu and Machiavelli Principles on the Competitiveness of Indigenous Firms

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Abstract: Management principles - the collections of plans, policies, strategies, thoughts, philosophies, and practices for achieving and sustaining competitiveness – are critical to the survival, growth, and sustainability of indigenous firms amongst developing countries. This paper sets to investigate whether the Sun-Tzu and Machiavelli management principles have any relevance on the global competitiveness of indigenous firms in Nigeria. Data for the study was garnered through survey design from the management staff of selected indigenous firms in Nigeria that have internationalized their operations. SEM AMOS version 28 was used to analyze the data. The study found that Sun-Tzu's principles of internal environmental appraisal, Sun-Tzu's principles of external environmental appraisal, Sun-Tzu principles of adaptiveness, and Machiavelli's principles of maintaining power have a significant relationship with indigenous firms' competitiveness. The study also uncovers that Sun-Tzu's principles of deceptiveness and Machiavelli's principles of manipulation have no significant relationship with the competitiveness of indigenous firms in Nigeria.

Keywords: Competitiveness, Indigenous firms, Machiavelli principles, Nigeria, Sun-Tzu principles

JEL Classification Codes: F23, M16,

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1. Introduction

Management principles - the collections of plans, policies, strategies, thoughts, philosophies, and practices for achieving and sustaining competitiveness – are critical to the survival, growth, and sustainability of indigenous firms, particularly the Nigerian indigenous firms. Management principles and their practices are as old as civilization and the existence of human history (Oghojafor & Ofuani, 2015). While, management principles as pointed out by Pardhasaradhi (2015), are universal, their application differs from culture to culture. Each culture has its way of applying management principles and strategies in its business (Oghojafor et al., 2012). The systematic search for similarities and differences in applications of management principles across organizations in different countries around the globe sharpens our understanding of why some organizations are more competitive than others.

Although, managers and strategists use cultural products like values, beliefs, legends, language, heroes, and heroines when formulating, implementing, and evaluating selected strategies and management principles (David, 2009). The contention is, that management principle or model reflects the culture, thoughts, and philosophies of the environment where they are developed, and these values and philosophies are different from the behaviors of managers, entrepreneurs, and strategists of other

countries (Akpor-Robaro, 2018; David, 2009). Applying these management principles or models in another culture has implications suggesting that great care is needed (Bhandari, 2019). More especially, indigenous firms facing strong globalized competition, particularly the Nigerian indigenous firms. Meanwhile, there is an extensive recognition that applying management principles and models from similar cultures is more beneficial than the less similar ones (Ntuli, 2002). Ntuli (2002) further maintains that defining, identifying, and addressing business challenges in indigenous ways of using models from the relatively similar cultural environment is more beneficial.

Thus, the question arises—do Sun-Tzu and Machiavelli's principles have any relevance to the competitiveness of indigenous firms in Nigeria? For example, Adebisi et al. (2016) maintain that Nigeria and China share certain characteristics in economic development, while Matondo (2012) argue that they also shared certain cultural similarities and differences. Meanwhile, Hlavatý and Ližbetin (2021; 2024) and Xie (2023) pointed out that Sun Tzu's ideas are still applicable at present time. In other words, companies require a strategy that enables them to stay agile and responsive to emerging challenges and shifting market conditions (Xie (2023). However, the relevant effect of the application of Sun Tzu principles within the context of Nigerian businesses remains unknown. Similarly, the studies of Belschak et al. (2018); Jackson and Grace, (2013); Galie and Bopst (2006); and Mertens et al. (2024) have re-validated the relevance and applicability of Machiavelli's ideas about power and leadership in business, management and organisations. A significant limitation of existing research on Machiavellian principle is the frequent omission of the researcher's rationale for investigating specific aspects of the phenomenon (Liyanagamage et al., 2023). Given these questions stated above, the present study examines the relevance effect of Sun Tzu and Machiavelli's principles on the competitiveness of Nigerian indigenous firms in the present-day competitive global environment especially in the Nigerian context appears to be invisible in the strategic management and business management literature.

Although most of the previous studies have empirically established that Sun-Tzu and Machiavelli's principles are critical forces that drive competitiveness among organizations (Bhandari, 2019; Hlavatý & Ližbetin, 2021). While much of this prolific research on Sun Tzu and Machiavelli's principles have concentrated on developed countries, for example, studies on Sun Tzu's principle in developed countries have focused on the adaption of the principles in the areas such as project management, marketing, strategy and small businesses (Pardhasaradhi, 2015; Clydesdale, 2017; Hlavatý & Ližbetin, 2021). The formal research studies on Machiavelli principles in developed countries, however, focused on power and leadership in organizations (Galie & Bopst, 2006; Jackson & Grace, 2013; Belschak et al., 2018; Ibarretxe, 2018) and changing environmental circumstances (Bereczkei, 2015). To date, there is a paucity of empirical data to justify the causal effects of the adoption and adaption of Sun Tzu and Machiavelli's principles to enhance firms' competitive advantage in the face of greater globalization and liberalization (Mok, 2015), particularly among indigenous firms in Nigeria. This creates the research gap that motivated the study.

Nigeria has the largest economy in Africa. She is a global player in the world oil sector and is currently ranked fifth based on the volume of production (Aghimien et al., 2018). The dominant players in the Nigerian economy are multinationals and foreign-owned firms (Boso et al., 2019). As of 2002, 98% of the indigenous firms operate at the micro, small, and medium-scale levels (Eniola & Ektebang, 2014). This shows that the structure of the Nigerian economy fits the Pareto 20-80 rule, i.e. over 80% of the economy's fortune is controlled by these multinationals and foreigners while less than the remaining 20% is left for the indigenous firms. However, a recent study conducted by Boso et al., (2019) reported that several indigenous Nigerian firms such as Dangote Group, United Bank for Africa, Guaranty Trust Holding Company PLC, Globacom Limited, Oando PLC, etc. are now emerging as international companies. Furthermore, the Nigerian business environment is increasingly becoming global. The government's current policy of deregulation, privatization, removal of subsidies, and attracting foreign direct investment is integrating the Nigerian business environment into the global business environment (Taiwo et al., 2018). Though the principal objectives are to revive the ailing sectors, activate the dormant sectors, grow the GDP, create jobs, earn foreign currency, etc., many indigenous firms need to equip themselves in order to survive and prosper. Hence, operating in a hyper-competitive global business environment means that indigenous firms in Nigeria need to apply and incorporate relevant management principles and models from relatively similar cultural environments into their strategic management process not only to survive but to maintain and sustain competitive advantage in the volatile global environment (Ntuli, 2002).

Our application of the management principles of Sun-Tzu and Machiavelli as independent variables to determine whether these principles have a relevant effect on the competitiveness of Nigerian indigenous

firms in this study is unique because it appears no such study has been conducted or carried out in Nigeria. This study contributes to the literature by illustrating how indigenous firms in Nigeria can better identify and distinguish which of Sun-Tzu and Machiavelli's principles of management are relevant within the context of the Nigerian business environment to maintain and sustain competitiveness, and in turn, gain and sustain competitive advantage in the global environment. Furthermore, the study intends to provide empirical evidence by developing a research model using structural equation modeling (SEM) in examining the relative effects of management principles of Sun-Tzu and Machiavelli on competitiveness of indigenous firms. The findings will hopefully provide better understandings of how to identify and distinguish the distinct sets of management principles of Sun-Tzu and Machiavelli developed for capturing, maintaining, and sustaining global competitiveness among the indigenous firms in Nigeria and Africa.

2. Literature Review & Hypotheses Development

2.1. Institutional Theory

The term institution refers to formal rules set, less formal shared interactions, sequences, and taken-for-granted assumptions that guide individuals and organizations' actions (Ekanem et al., 2019). The institutional theory deals with how the external systems surrounding organizations influence their processes and decision-making (Hoskisson et al., 2000). As pointed out by DiMaggio and Powell (1983) competitors' actions, customers, influential firms in the supply network, culture, and legal and political factors are the institutional factors that put pressure on organizations. Yang et al. (2019) however, maintain that firms that operate within the expected formal and informal rules, practices, and behaviours of the institutional framework such as economic, socio-cultural, and political contingencies can meet their expectations and gain support, stability, prestige, and access to strategic resources.

Meanwhile, Caldera et al. (2019) have classified the salient emphasis of the institutional theory into two folds: legitimacy and isomorphism. Legitimacy refers to adhering to the rules and norms of the organizational environment to implement sustainable strategies. Isomorphism, on the other hand, describes the three mechanisms that can be used as coercive, mimetic, and normative (DiMaggio & Powell, 1983). Coercive isomorphism is influences exerted by regulatory governing bodies; mimetic isomorphism allows organizations to mimic industry leader's best sustainability initiatives, and normative isomorphism wants firms to be aware of environmental sustainability, understand social rules and address environmental issues (Caldera et al., 2019; DiMaggio & Powell, 1983).

From the above premises, there are two emerging implications. First, it is clear that are there various institutions, while a few of these institutions impose significant implications on the organizational performance level. Second, the inimitable institutional forces might drive or hinder the competitiveness of organizations in different countries, for example, the Sun-Tzu and Machiavelli principles, which this present study considered as the crucial institutional forces that allow the indigenous firms in Nigeria to survive, maintain, sustain competitiveness and competitive advantage in a volatile global environment. Through these Sun-Tzu and Machiavelli management principles, indigenous firms in Nigeria can not only obtain knowledge regarding changes in the rules and regulations of their internal and external global business environment, but also information about how to maintain bargaining power and dominance to remain competitive in a turbulent global business environment (Vinayan et al., 2013).

2.2. Sun Tzu's management Principles and Indigenous Firms' Competitiveness

Baloch and Inam (2009) described today's business world as a chaotic transition period characterized by global competition, rampant change, and a faster flow of information and communication. They want firm leaders to establish simple objectives with a comprehensive knowledge of the competitive environment and resources and look beyond their local markets to sustain profitability and growth. In this respect, the principles of Sun Tzu's art of war can create competitiveness for organizations (i.e., Nigerian indigenous firms) operating in a turbulent global business environment (Zhang et al., 2016). For Kılınça, Oncüb, and Tasgite (2012), indigenous firms that can effectively deploy Sun Tzu's principles into their strategic management process tend to achieve their goals, sustain competitiveness, and often beat out the

privileged foreign multinational firms.

Meanwhile, as pointed out by Zhang et al (2016), the Art of War is the oldest and most valued piece ever produced on military strategy. This piece was written by Sun Tzu in 500 BC, and the period has been regarded as the era of intense and frequent wars in China. The main emphasis of Sun Tzu's principles was on principles of survival and success, while Sun Tzu's popular teachings were "Know the enemy, know yourself, your victory will never be endangered. Know the ground, know the weather, your victory will be total," (Wu, Hsiung, & Wu, 2004, p. 398). Correspondingly, Sun Tzu's principles maintain that victory is the main object in war i.e., competitiveness or sustaining competitive advantage over others should be the goal or objective of firms operating in a competitive global environment (Vinayan et al., 2013).

Furthermore, Sun Tzu's principles as pointed out by Yean et al. (2012) have cross-cultural and cross-temporal applicability. For example, Sun Tzu's principles have been applied to business and management environments. Examples of such studies that have shown that Sun Tzu's principles or the Art of War have a substantial impact on business success and competitiveness are documented by Boar (1995), Hawkins et al. (2005), Yean et al (2012), Kılınça et al (2012), Pardhasaradhi, 2015, Zhang et al (2016), Clydesdale, 2017, Hlavatý and Ližbetin, (2021), among others. These studies affirm that Sun Tzu's principles are potent in fostering organizational success and competitiveness of firms operating in a competitive global environment. Given the evidence in the existing literature we, therefore, proposed the following hypotheses using the constructed framework by Wee et al. (1991) integrating Sun Tzu's principles with the competitiveness of firms operating in a competitive global environment to show the relevant effect between the various aspects of Sun Tzu's principles and competitiveness of Nigerian indigenous firms:

H1: There will be no significant relationship between Sun Tzu's situation appraisal of the internal environment and the competitiveness of Nigerian indigenous firms.

H2: There will be no significant relationship between Sun Tzu's situation appraisal of the external environment and the competitiveness of Nigerian indigenous firms.

H3: There will be no significant relationship between Sun Tzu's implementation strategy of adaptability and the competitiveness of Nigerian indigenous firms.

H4: There will be no significant relationship between Sun Tzu's implementation strategy of deceptiveness and the competitiveness of Nigerian indigenous firms.

2.3.Machiavelli's Management Principles and Indigenous Firms' Competitiveness

The term "Machiavellianism" has been described within a plethora of literature as persons who will act immorally to accomplish their anticipated ends (Brewer & Abell 2017; McGuire & Hutchings 2006; Rehman & Shahnawaz 2018; Utami, Astiti & Mohamed, 2019). These studies developed and examined the construct of Machiavellianism by connecting it conceptually to the original work of Niccolo Machiavelli known as The Prince, written over 500 years ago, is branded as a guide to the use of deceitful, manipulative leadership practices (Kessler et al., 2010). Kessler et al. (2010) further maintain that this is one side of the coin of Machiavelli's approach. However, according to Kumar (2019) and Rehman and Shahnawaz (2021), a good number of studies have also argued the positive side of Machiavelli's approach. For example, the empirical studies of McGuire and Hutchings (2006) and Ruiz-Palomino and Linuesa-Langreo (2018) have demonstrated that Machiavelli's approach provides strategic direction for modern organization leaders and managers on how to mitigate challenges and take advantage of opportunities while operating in an increasingly complex business environment and a rapid change international business environment. Furthermore, the recent rise in calls for ethical and authentic leadership behaviors characterized by genuine relationships, transparency, accountability, virtue, and integrity, among other soft skills to get the work done by others (Rego et al., 2017) are also the practices resonated by the Machiavellian principles of maintaining power to sustain competitiveness. Given the evidence in the existing literature, the following hypotheses are proposed.

H5: There will be no significant relationship between Machiavelli's principles of maintaining power and the competitiveness of Nigerian indigenous firms.

H6: There will be no significant relationship between Machiavelli's principles of manipulation and the competitiveness of Nigerian indigenous firms.

3. Research Methods

A cross-sectional research design was employed for the study. The population of the study consists of all employees at the managerial cadre of selected Nigerian indigenous firms that have internationalized their operations. The study specifically focus on Lagos State, being the commercial nerve center of Nigeria and West Africa, houses the headquarters of numerous firms, making it a pivotal location (Ebegbetale & Okon, 2022). The selected sectors are information and communication, banking, oil and gas, and manufacturing. The choice of the managerial cadre respondents was based on the fact that they are involved in strategic decision-making (Hlavatý & Ližbetin, 2021). A multi-stage sampling technique was used. The first Purposive sampling technique was used to identify the respondents, while the convenient sampling technique was used to administer the questionnaires. A response rate of 149 respondents was obtained, which fell within Hair et al. (2010) recommended threshold of a 20:1 sample-to-variable ratio for robust factor analysis. Seven variables were measured in this study, and data were collected from 149 respondents. These gave a ratio of 21:1, which is greater than the suggested threshold. The researchers directly contacted the respondents, ensuring that ethical standards were upheld, including informed consent, confidentiality, and anonymity. The data were analyzed using the descriptive and inferential statistical tools using Statistical Package for Social Sciences (SPSS) of Moment Structure (AMOS) version 23 software.

3.1. Measures

The questionnaire survey instrument employed for data collection had three sections: A, B, and C. Section A contained the demographic variables such as age, sex, length of service, managerial level, etc. Sections B and C contained the study measures which were subjected to a reliability test using Cronbach's Alpha in SPSS version 23. Section B featured the independent variables (Sun Tzu and Machiavelli principles) which were examined using scales from existing studies.

Sun Tzu's principles were assessed using two measuring variables: Situation analysis and strategy implementation on a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5). All the items for the two measuring variables were adapted from Wu et al. (2004). Sun Tzu's Situation appraisal had two sub-divisions: internal and external environmental appraisal. The internal environmental appraisal was measured using 6-items. A sample item was; "The leader is wise and able to gain the moral support of his subordinates who are ready to stick with him in challenging times" The Cronbach's Alpha standardized value was 0.902.

The external environmental appraisal was measured using 2-items. A sample item was; "The firm takes into account the various changes in the business and economic environment and adapts its strategies accordingly." The Cronbach's Alpha standardized value was 0.782. Sun Tzu's strategy implementation had two sub-divisions: adaptability and deception.

Adaptability was measured using 5-items. A sample item was: "We are flexible in our actions to gain the maximum advantage of changing circumstances." The Cronbach's Alpha standardized value was 0.938.

Deceptiveness was measured using 3-items. A sample item was; "We achieve distinct advantages in competition through the use of baits, which can bring the competitor to where you want to compete." The Cronbach's Alpha standardized value was 0.936. Machiavelli's principles had two sub-divisions: maintaining power and manipulation.

Maintaining power was measured using 6-items adapted from Kessler et al. (2010). A sample item was; "An effective individual builds a powerbase of strong people." The Cronbach's Alpha standardized value was 0.944.

Manipulation was measured using 6-items adapted from Kessler et al. (2010). A sample item was; "Employees should be watched with an eye of suspicion: because it is natural for people to desire to acquire power." The Cronbach's Alpha standardized value was 0.942.

Section C contained the dependent variable (competitiveness). Items measuring competitiveness were adapted from competitor orientation scale developed by Narver and Slater (1990). The 4-item scale is on

7-point Likert scale which ranges from strongly disagree (1) to strongly agree (7). The Cronbach's Alpha standardized value was 0.928. All the Cronbach's Alpha standardized values were above the 0.70 accepted threshold recommended by Nunnally and Bernstein (1994).

4. Data Analysis and Results

4.1 Preliminary Analysis

A preliminary analysis was carried out to ensure that the common method of bias (CMB) was not an issue in the data collected for the study. Following the tradition of Podsakoff et al. (2012), the study adopted both procedural and statistical approaches for the data. For the procedural method, the formal consent of the study participants was sought, and their anonymity, and confidentiality, were guaranteed. They were also aware that they would be required to fill out some questionnaires for fourteen weeks. Each participant was given a unique code which they were expected to fill in a space provided in the questionnaire to enable correct matching of responses. The independent variable had six measures, while the dependent variable was treated as a unidimensional construct. Each study measure was administered on two weeks' intervals to the respondents till the whole seven measures were administered.

Employing the statistical approach, Harman's single-factor test in exploratory factor analysis and employing the principal component factor (PCF) was conducted by loading all the items of the dependent and the independent variables in SPSS version 23. The analysis revealed that 23.97% of the variance was explained by the extracted factor, which is below the 50% threshold suggested by Allen and Bennett (2010). This implies that CMB was not a threat.

4.2 Data Analysis

Data analysis was carried out using AMOS version 23 and employing Anderson and Gerbing's (1988) two-step approach- confirmatory factor analysis (CFA) and structural equation modelling (SEM). The CFA helps to ascertain that the conditions set for the model fit and the validity of the study constructs are met before proceeding to hypotheses testing. SEM is used to test the study hypotheses.

4.2.1. Measurement Validation

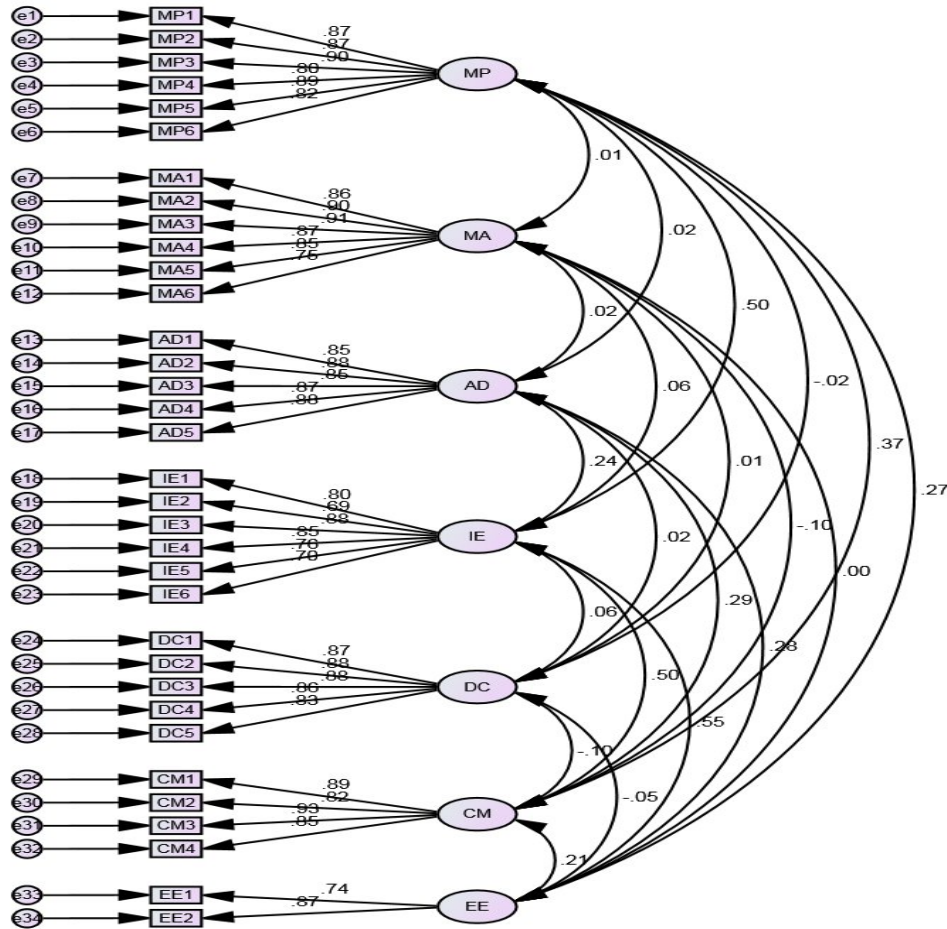
To empirically ascertain whether the study constructs were distinct, a CFA was conducted on a seven-factor model (internal environment, external environment, adaptiveness, deceptiveness, maintaining power, manipulation, and competitiveness) shown in figure 1 below. According to Hu and Bentler (1999), certain conditions must be met before a model is deemed fit: the ratio of $X^2/df < 3$; the comparative fit index (CFI) > 0.95 ; the standard root-mean-squared residual (SRMR) < 0.08 ; and the root mean square error of approximation (RMSEA) < 0.06 . According to Hair et al. (2010), if any three or four of the indices satisfy the above conditions, the model is deemed fit. The CFA analysis revealed that $X^2/df=1.604$, RMSEA = 0.064, CFI = 0.928, and SMRS = 0.060. In line with Hu and Bentler (1999), the model fit was confirmed. The indices of the above-proposed model were compared to the indices of other alternative models such as five, three, and one model factors.

A poor fit statistic was obtained for each of the alternative models. In the five-factor model, maintaining power and manipulation were combined into one latent factor while adaptiveness and internal environment were also combined into another latent factor ($X^2/df=4.114$, RMSEA = 0.145, CFI = 0.622, SMRS = 0.192). In the three-factor model, maintaining power, manipulation, and external environment were combined into one latent factor while adaptiveness, internal environment, and deceptiveness were also combined into another latent factor ($X^2/df=5.382$, RMSEA = 0.172, CFI = 0.461, SMRS = 0.222). In the final analysis, all the seven constructs were combined into one latent factor ($X^2/df=7.082$, RMSEA = 0.203, CFI = 0.247, SMRS = 0.222). These revelations further affirmed that CMB was not an issue in the data set.

Table 1 below contained the results of the validity measures. The CR ranged from 0.790 to 0.945, which was above the 0.70 threshold (Fornell & Larcker, 1981). The AVE values were above the 0.5 thresholds, further confirming the convergent validity of the study constructs. The square roots of the

AVE were represented by the diagonal values. The AVE of each variable was greater than all the correlations of each variable, confirming the discriminant validity. Since the values of $MSV < AVE$ and the composite reliability, convergent validity, and discriminant validity were confirmed; the study concludes that the instrument used for data collection was valid. The study, therefore, proceeded to hypotheses testing using the imputed scores of each latent variable from the CFA.

Figure1: Seven-factor model



Source: Authors, 2024

Table 1. Reliability and Validity

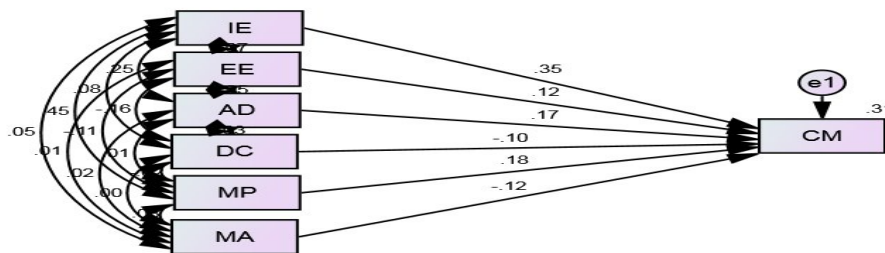
	CR	AVE	MSV	MP	MA	AD	IE	DC	CM	EE
MP	.945	.740	.251	.806						
MA	.943	.734	.010	.014	.857					
AD	.938	.753	.087	.016	.022	.868				
IE	.903	.610	.297	.501***	.056	.237*	.781			
DC	.936	.745	.010	-.024	.006	.023	.062	.863		
CM	.929	.767	.254	.371***	-.098	.294**	.504***	-.100	.876	
EE	.790	.654	.297	.270**	-.004	.277**	.504***	-.049	.207*	.809

Key: sig. * $P < 0.050$, ** $P < 0.010$, * $P < 0.001$, CR: Composite reliability; AVE: Average Variance Extracted, MSV: Maximum Shared Variance, MP: Maintaining Power; MA: Manipulation; AD: Adaptiveness; IE: Internal Environment; DC: Deception; CM: Competitiveness; EE: External Environment.**

4.2.2. Hypotheses Testing

To examine if Sun Tzu and Machiavelli’s principles are relevant to the competitiveness of Nigerian indigenous firms, a regression analysis was carried out through AMOS version 23 software.

Figure2: SEM Model depicting the relationship between Sun Tzu and Machiavelli principles and competitiveness of Nigerian indigenous firms.



Source: Authors, 2024

The results of the analysis are reported in table 2 below.

Table 2: Regression Results

Hypothesis	Standard coefficient	SE	t-value	p-value	Test-result
Internal environment----> competitiveness	.642	.146	4.397	.000	Supported
External environment----> competitiveness	.142	.084	1.681	.093	Rejected
Adaptiveness----> competitiveness	.222	.090	2.462	.014	Supported
Deceptiveness----> competitiveness	-.115	.083	-1.383	.167	Rejected
Maintaining Power----> competitiveness	.248	.108	2.306	.021	Supported
Manipulation---->competitiveness	-.151	.085	-1.774	.076	Rejected

SE: Standard error

The regression results depicted in Table 2 revealed a significant relationship between Sun Tzu’s internal environmental appraisal and competitiveness of Nigerian indigenous firms ($\beta = 0.642$, $SE = .146$, $C.R = 4.397$; $p < .05$). The analysis also revealed a significant relationship between Sun Tzu’s adaptiveness and competitiveness of Nigerian indigenous firms ($\beta = 0.222$, $SE = .090$, $C.R = 2.462$; $p < .05$). Furthermore, a significant relationship was also found between Machiavelli’s maintaining power and competitiveness of Nigerian indigenous firms ($\beta = 0.248$, $SE = .108$, $C.R = 2.306$; $p < .05$). Although the analysis found a positive relationship between Sun Tzu’s external environmental appraisal and competitiveness of Nigerian indigenous firms ($\beta = 0.142$, $SE = .084$, $C.R = 1.681$; $p > .05$), it was not significant. The analysis also found an inverse relationship between Sun Tzu’s deceptiveness and competitiveness of Nigerian indigenous firms ($\beta = -0.115$, $SE = .083$, $C.R = -1.383$; $p > .05$). Finally, an inverse relationship between Machiavelli’s manipulation and competitiveness of Nigerian indigenous firms ($\beta = -0.151$, $SE = .085$, $C.R = -1.774$; $p > .05$) was also revealed in the analysis.

5. Discussion

This study mainly focused on investigating the relevance of Sun Tzu and Machiavelli principles to the competitiveness of Nigerian indigenous firms. The results from the analysis of hypotheses one and two showed that Sun Tzu’s principles of situational appraisal of the internal and external environment have a positive relationship with the competitiveness of Nigerian indigenous firms. Wu et al. (2004) also found these constructs relevant to competition. The analysis further revealed that internal environmental appraisal made a unique statistical contribution to the outcome variable. This implies Sun Tzu’s popular saying of know the enemy, know yourself, and your victory will never be endangered. Know the ground, know the weather, and your victory will be total (Tung, 1994) is relevant to the competitiveness of

Nigerian indigenous firms and entrepreneurs. The emphasis is that firms need to develop a deep understanding of their resources to unlock their full potential, reconfiguring, mobilizing, and deploying them in ways that drive competitive success (Collins, 2021).

This suggests that Nigerian entrepreneurs and managers should always take an objective appraisal of their internal environment: resources owned, the policies, competencies, goals, values, ideologies, principles, etc., just like Sun Tzu advocated for countries fighting wars to consider weapons, armies, logistic supports, and so on (Okafor et al., 2015) to determine their relative strengths and weaknesses in face of the threats and opportunities coming from the external/global business environment (Collins, 2021; Shibin et al., 2020). They must also be aware of the ideologies, values, and principles guiding operations of other global players and how these may threaten their operations. Also, they must determine at what point they should maintain their African values of sportsmanship, competition, mutual concern, co-prosperity, human relations, and communal life (Ifechukwu, 2010) when responding to competitors' actions.

The result obtained from the third hypothesis confirmed that Sun Tzu's implementation strategy of adaptability has a significant relationship with the competitiveness of Nigerian indigenous firms. The finding is also in line with Wu et al. (2004). It also provides empirical evidence to support Sun Tzu's consistent emphasis on the need for continuous flexibility in plan implementation, allowing for ongoing adjustments in response to the ever-changing nature of reality (Hlavatý & Ližbetin, 2024). This implies that Sun Tzu's sayings of never to engage in competition if one is weak; thorough understanding of the market conditions before any business operation; consideration of both favorable and unfavorable business factors; and understanding and management of fatal weakness (Lee et al., 1998) is relevant to Nigerian indigenous firms and entrepreneurs.

The result from the analysis of hypothesis four showed that Sun Tzu's implementation strategy of deceptiveness is inversely related to the competitiveness of Nigerian indigenous firms. This implies that Sun Tzu thinking that all warfare is based on deception and concealing one's intention are not common practices among Nigerian entrepreneurs and managers even though ethical issues (cutting off competitors, dumping and unethical seeking of information) are becoming more salient in global businesses (Mok, 2015). Hence, Sun Tzu's strategy of deception will have a negative impact on competitiveness if implemented. This is because customer satisfaction is the primary goal of a business, not to destroy a competitor (Macdonald & Neupert, 2005). It is in the business's interest to shun deceit and indicate its market intention which might help build up demand or avoid over-investment in the industry because other businesses are aware of the activities of other businesses (Clydesdale, 2017). A business firm should compete to win and not destroy rivals or competitors (Hlavatý & Ližbetin, 2021).

The result obtained from the fifth hypothesis confirmed that Machiavelli's principles of maintaining power have a significant relationship with the competitiveness of Nigerian indigenous firms. This implies that Machiavellian positive behaviors of putting people's needs into consideration as well as sharing responsibilities and successes bring respect and goodwill (De Hoogh et al., 2021). Although Machiavelli's approach to keeping power depends on the situation which may require disregarding virtues of trust, decency, and honor (Kessler et al., 2010), such actions can only bring short-term successes but a very costly form of frequent rejection as social partners in the long-term in form of frequent rejection as partners for most business relationships (Bereczkei, 2015). Our finding aligns with Mertens et al. (2024) who that Machiavellian principles remain embedded in current managerial practices.

Finally, findings from the test of hypothesis six showed that Machiavelli's principles of manipulation are inversely related to the competitiveness of Nigerian indigenous firms. This is in line with the argument that Machiavelli's manipulative and deceitful ideas threaten organizational well-being (Belschak

et al., 2018; Ramadhania & Ardini, 2023). This is because Machiavellian behavior can lead to a diversion of effort, causing Machiavellians to compromise their performance of essential duties in pursuit of personal interests (Liyangamage et al., 2023). This finding aligned with those that caution against the integration of Machiavelli into management practices (Jackson & Grace, 2013). It further confirmed the study's argument that foreign ideologies and principles that do not align with Nigerian culture are difficult to implement by Nigerian firms and entrepreneurs. This provides empirical support to Akpor-Robaro (2018) who asserted that Nigerian managers that resort to suspicions, withholding of information, spying, victimization, and use of threats based on internalized job insecurity are causing several problems for their organization.

5.1.Theoretical Implications

Theoretically, the findings of this study extend the literature on the application of institutional theory in understanding how the Sun Tzu and Machiavelli principles of management in a developing nation amongst indigenous firms. The study showed that principles that align with the culture, values, and principles of the business location have a more significant impact on the entrepreneurial or managerial practices of indigenous firms. Drawing on the institutional theory, the study has shown that principles or models that contravene the culture, thoughts, values, and ideologies will have a negative influence on the firm. The study shed more light on the institutional theory postulation that formal rules set, less formal shared interactions, sequences, and taken-for-granted assumptions guide individuals' and organizations' actions. Drawing on the institutional theory, the study enhances literature by contributing to the understanding of Sun Tzu and Machiavelli's management principles within the context of a developing nation. The study also provides a better understanding of the relevance of these principles in relation to the competitiveness of indigenous firms in developing countries, including Nigeria.

5.2.Practical Implications

The findings have practical implications for management practitioners and scholars. In practice, not all the principles of Sun Tzu and Machiavelli are relevant to the competitiveness of Nigerian indigenous firms. Of the four principles of Sun Tzu (situation appraisal of internal environment, situation appraisal of external environment, adaptability, and deception) considered in the study, only the deception principle showed an inverse relationship. Similarly, two of Machiavelli's principles (maintaining power and manipulation) are examined. Manipulation depicted an inverse relationship. The study, therefore, suggested that the deception principle as advocated by Sun Tzu and manipulation promoted by Machiavelli should be replaced with the African traditional virtues of trust and sincere human relations practices to address suspicion and uncertainty in organizations and among entrepreneurs and managers.

5.3. Limitations of the study

Despite the findings of the study, it is not without its limits. Data were obtained from indigenous firms therefore, generalizations about other organizations should be with caution. The study employed a cross-sectional research design future study should use a longitudinal research design. Also, this study only dealt with four components of Sun-Tzu's principles and two components of Machiavelli's principles. The study could be replicated by incorporating other variables. The population of the study can be expanded to other industries to establish if similar results can be obtained.

5.4.Conclusion

The study empirically investigated the association between Sun Tzu and Machiavelli's principles on the competitiveness of indigenous firms in developing countries and Nigeria as a case of emphasis. Drawing from the institutional theory, the findings revealed how Sun Tzu and Machiavelli's principles of

management influence the competitiveness of indigenous firms in Nigeria. The data were collected amongst employees at the managerial cadre of selected Nigerian indigenous firms that have internationalized their operations. This study contributes to the literature on Sun Tzu and Machiavelli's principles and further deepens our understanding of its application within the context of a developing country. The study provides empirical support for the application of Sun Tzu and Machiavelli's principles.

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