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Full Length Research Paper

Shareholders' return and value of manufacturing firms listed on the Nigerian stock exchange

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The attainment of going concern concept of an entity relies heavily on its ability to maximize the wealth of its shareholders and value. The prospect of a firm to investors is a function of return, which signals to the market its good governance. The study examined the influence of shareholders' return on the value of manufacturing firms listed on Nigerian Stock Exchange using annual reports and accounts of 36 selected firms for a period of twenty years, between 2007 and 2016 (720 firm year observations). The results of the multivariate regression analysis (fixed effect) revealed that past dividend, agency cost, debt-equity ratio, and size have significant positive effect on market capitalization of listed manufacturing firms in Nigeria; while earnings per share and sales growth have insignificant negative influence on value of a firm though, the magnitude is immaterial. The study concluded that managers should look beyond the signaling effect of dividend, but place the interests of the key stakeholders (shareholders, management, employees, and loan holders) as well as the growth and expansion of the business at the centre of their decision-making. Especially on the proportion of earnings to be paid as dividend and the nature of dividend policy to be adopted to enhance its value.

Key words: Past dividend, earnings, agency cost, market capitalization, stakeholders.

INTRODUCTION

The separation of ownership from control in a firm has led to owners distrust in the managers on the resources entrusted to them. Shareholders usually hinge on dividend in assessing the risk and returns associated with their investment in a firm. Dividend is the proportion of residual income attributable to investors as returns on their investment (Sam-Okere and Ologunwa, 2016). It served as nexus to bridge the information asymmetry. Due to information gap between the owners of the business and the management, managers tend to assure the investors of the security of their investment in the firm

and guarantee the effectiveness in their stewardship duties through payment of dividend (Khan and Qureshi, 2018).

Nwidobie (2016) opined that payments of returns to investors connote financial stability and good corporate governance; it is believed that proportion of earnings to be paid as dividend is subject to cash availability. Shareholders quest for high dividend payout to curb misappropriation of excess cash flow by the management (Jensen, 1986). Miller and Modigliani (1961), Miller and Scholes (1978), and Black (1976) proposed that value react indifferently to dividend in an ideal market where

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there is non-existence of information gap, transaction cost and taxes or both corporate and individuals are taxed at the same rate. The dividend supremacy school of thoughts (Bhattacharya, 1979; Fama and Blahak, 1968; Gordon, 1963; Jensen, 1986; Solomon, 1969; Walter, 1963) propounded that capital markets are clouded with uncertainties and thus perfect situation is unrealistic. They believed that in a market featured with high inflation rate, exchange rate fluctuations and insecurity; the investors would prefer having cash distribution rather than capital gains. This is due to devaluation in the time value and purchasing power of money.

Despite the controversial assumptions in respect to the influence of shareholders' returns on firm value; it was reported that stock price increased eightfold in two decades of its initiation by the East India Company in 1700 and that the total capitalization of global Joint Stock Companies increased fourfold within 22 years (Frankfurter et al., 2003). Likewise, current studies have shown that dividend payment influences value of firms (Habumugisha and Mulyungi, 2018; Akinkoye and Akinadewo, 2018; Yustisiana, 2017). Over time, researchers have discovered that several factors drive management decision on the proportion of earnings to pay as dividend if a firm tends to attain its value maximization goal (Kajola et al., 2015; Ojeme et al., 2015, Kapoor et al., 2010). The inconsistency observed in the dividend payment patterns of Nigerian firms has led to mixed reports on the influence of dividend on the value (Okpara, 2010; Ozuomba and Ezeabasili, 2017; Nwaiwu and Ali, 2018). Therefore, this paper examines the relationship between shareholders return and market capitalization of Nigerian manufacturing firms.

REVIEW OF RELATED LITERATURE

The underlying theories and the extant empirical review of past studies are discussed in this here.

Underlying theories

This study rest on four theories; Lintner's signaling theory, resource-based view hypothesis, trade-off debt theory and agency cost of free cash flow hypothesis. Signaling theory propounded by Lintner (1956) believed that the existence of information gap between the internal and external environment of a firm might probably cause market inability to access the true intrinsic value of the firm; such that share price may not always be an accurate measure of the firm's value. Therefore, shareholders and potential investors believed in cash flow provided to them in form of returns on their investment as a yardstick for firm's valuation. According to Miller and Modigliani (1961), in an imperfect market,

share prices tend to respond to changes in dividends. Dividend announcement is perceived to convey implicit information about the firm's future earnings and as a benchmark for potential investors in taking decision. On the other hand, Myers (1984) in trade-off debt theory opined that firm trade off the benefits and costs of debt (especially interest tax shields) and equity financing resulting to optimal capital structure. Firms with huge debt are committed to high fixed interest obligation thus reducing earnings available for distribution. The theory accounts for market imperfections such as taxes, bankruptcy costs, and agency costs, but ignores the threat of bankruptcy in a situation whereby the cost of debt outweighs the benefit.

Conflict of interest between the owners of the firm and the managers cannot be overlooked due to insider information possessed by the managers (Fama and Miller, 1971). Efficient utilization of firm's resources by its agent is a reflection of management efficiency and the extent to which a firm has been able to manage its agency problem. Wernerfelt (1984) hypothesized that variations between firms' performances in the same industry and across industries are traceable to the amount and quality of their resources and ability of the managers to efficiently manage the available resources towards the attainment of firm overall objective of wealth and value maximization (Cool and Schendel, 1988; Hansen and Wernerfelt, 1989). The underlying theories of this study served as justifications for the explanatory variables used; which are past dividend, earnings per share, asset utilization ratio, operating cash flow, growth in sales and size of the firm.

Empirical review

The study of Ojeme et al. (2015) revealed that dividend positively associated with market value, which is consistent with the findings of Adefila et al. (2014); while Egbeonu et al. (2016) reported a significant negative effect but Emeni and Ogbulu (2015) as well as Ozuomba and Ezeabsali (2017) obtained an insignificant negative relationship between dividend and market value. Similar studies were carried out in other countries using market prices and market capitalization as measures of firm value and divergent results were obtained.

The study conducted in Pakistan by Gul et al. (2012), Iqbal et al. (2014) and Mohammed (2013) revealed similar significant positive relationship between dividend and market value. Budagaga (2017) obtained similar result in Poland, which is also consistent with the report of Yustisiana (2017) in Indonesian context. Thirumagal and Vasantha (2016) found similar result, using Indian pharmaceutical industry. Ngo and Dang (2016) also reported significant positive relationship in Vietnam. M'rabet and Boujjat (2016) in their study of Listed Companies in Morocco also reported same result

likewise DeAngelo and DeAngelo (2006) in United States; but in the case of Nairobi, Geoffrey, Mbithi and Musiega (2017) discovered an insignificant positive effect of dividend on market value of firms.

Agrawal and Narayana (2014) discovered that dividend payout ratio and dividend yield have significant negative effect on the market price per share. On the contrary, Anand (2004) reported dividend payout ratio positively and significantly influence market value of companies in India. Similar result was obtained from the study of Nazir, Abdullah and Nawaz (2012) in their study conducted on Pakistani listed companies. Ramadan (2015) reported similar result in Jordan context. In the same vein, the study of Foong et al. (2007) and Zuriawati et al. (2012) in Malaysia showed significant positive relationship between dividend payment and value of firms' listed on the board of Bursa Malaysia. Likewise, Hejazi and Moshtaghin (2014) in their study, using companies listed on the Tehran Stock Exchange. Ajanthan (2013) concluded that dividend payout ratio positively affected the well-being of listed firms in Sri Lanka while Okafor and Mgbame (2011) reported mixed results. Taimi (2014) opined that the higher the value of dividend payouts, the higher the market value of the firm.

Egbeonu et al. (2016) showed earnings has significant positive effect on value of Nigerian listed firms. Similarly, Emeni and Ogbulu (2015) reported strong significant relationship between earnings and firm value. Also, Al-Hassan et al. (2013), Asghar et al. (2011), Nazir et al. (2012) reported significant positive relationship between earnings and market price per share. This contradicts the reports of Ozuomba and Ezeabsali (2017) which obtained positive but insignificant relationship, while Inyiama and Ugah (2015) reported an insignificant negative effect of earnings on firm value. In Vietnam context, Ngo and Dang (2016) found significant positive relationship between earnings and market capitalization, which is consistent with the findings of Mohammed (2013) in Pakistan, while the report of Yustisiana (2017) in Indonesian context and Thirumagal and Vasantha (2016) in India showed a positive but insignificant effect of earnings on market price.

The result of the study conducted by Adenugba, Ige and Keshinro (2016) revealed that financial leverage significantly and positively affects market capitalization of Nigerian listed firms as obtained by Adeyemi and Oboh (2011), Collins et al. (2012) in the same context. Similar findings were reported by Black (2001), Cheng and Tzeng (2010), Damouri et al. (2013), Gompers et al. (2003), Gill et al. (2011). Johannes and Dhanraj (2007) and Sharma (2006) reported same result, using Indian manufacturing firms. Ming-Chang and Zuwei-Ching (2011) in their study using 645 companies listed in the Taiwan as well as Trevor (2014) using firms listed on Zimbabwe Stock Exchange. Likewise, Antwi et al. (2012) and Yartey (2006) discovered that leverage has significant positive effect on the value of firms listed on

the Ghana Stock Exchange (GSE). On the contrary, Geoffrey et al. (2017) obtained a negative but insignificant relationship between leverage and market value of financial firms' listed on the Nairobi Securities Exchange; likewise Ngo and Dang (2016) in case of Vietnam. On the other hand, the studies of Pachori and Totala (2012) and Rajni (2012) revealed significant negative relationship between leverage and firm value.

According to the study of Thirumagal and Vasantha (2016), carried out using Indian pharmaceutical industry, it was found that firm size and growth positively and significantly influence firm value (market capitalization). Iqbal et al. (2014) in Pakistan obtained similar result, revealing that firm size and growth have significant positive impact on market prices of listed firms, which is consistent with the reports of Geoffrey et al. (2017) using Nairobi listed firms. Yustisiana (2017) reported similar result in relation to growth and market price of mining companies in Indonesia.

MATERIALS AND METHODS

This study is a causal-effect research, examining the nature of influence that shareholders' return has on the market capitalization of listed manufacturing firms in Nigeria. Secondary data derived from audited financial statements of selected thirty-six firms for a period of twenty years (1997-2016) was used for the analysis.

Model specification

The study investigated the causal-effect relationship between shareholders' return and value of listed manufacturing firms in Nigeria. The specified model for this study is:

$$LMC_{it} = \gamma_0 + \gamma_1 LLD_{it} + \gamma_2 EPS_{it} + \gamma_3 AC_{it} + \gamma_4 DER_{it} + \gamma_5 \Delta OCF_{it} + \gamma_6 SIZE_{it} + \gamma_7 SG_{it} + \epsilon_{it}$$

Where: LMC = Natural logarithm of Market Capitalization; LLD = Natural logarithm of preceding year dividend; EPS = Earnings per Share; AC = Agency Cost; DER = Debt to Equity Ratio; OCF = Operating Cash flow; SIZE = Natural logarithm of Total Assets; and SG = Sales Growth.

This model is adapted from the study of M'rabet and Boujjat (2016) as $MC_{it} = \beta_0 DIVP_{it} + \beta_1 TA_{it} + \epsilon_{it}$. MC = Market capitalization as dependent variable while DIVP = Actual dividends paid as proxy for Dividend Policy and TA = Total Asset (introduced as a control variable). The adapted model is modified with the inclusion of Earnings, Agency cost, leverage, cash flow and growth as against total asset used in the study of M'rabet and Boujjat (2016). This is because shareholders' return is an appropriation to earnings and subject to management efficiency and availability of excess cash flow. The basis of the selection of the variables aligned with the underpinning theories of this study.

Model estimation technique

Three stages were involved in estimating the study's model. The nature of association among the explanatory variables are tested using Pearson Moment Correlation Matrix and Variance Inflation Factor (VIF). The main estimation is conducted using the regression analysis, while Hausman's test is carried out to determine the most

appropriate regression effect among the pooled Ordinary Least Square, Fixed effect and Random effect. The third stage involved the diagnostic test. The diagnostic tests conducted are the Heteroskedasticity test, cross sectional dependence test and Serial Correlation test. These tests were carried out using Modified Wald test, Pesaran CD test and Wooldridge test. These tests are carried out to determine whether the residuals of the model are constant over the period, if there are issues of dependence across the residuals of the model and multi-colinearity problem among the model residuals.

T-statistics was employed to judge the significant level of the predictive power of individual explanatory variable while the F-statistics was used to explain the combined effect of the explanatory variables on the dependent variable. The confidence level chosen for test of significance is 95%.

RESULTS AND DISCUSSION

Preliminary Analysis

To test for the appropriateness of the series in the distribution, the nature of association among the variables is examined using Person Moment correlation matrix and Variance Inflation Factor (VIF); and the results are presented in Table 1.

Interpretation

The result of the correlation matrix as presented in Table 1, revealed that sales growth, lagged dividend and operating cash-flow are positively correlated; firm size is directly associated with past dividend, earnings and operating cash-flow but inversely related to agency cost and debt-equity ratio. Debt-equity ratio has negative association with past dividend, earnings and agency cost. Earnings has direct association with all the other explanatory variables except debt-equity ratio. The maximum coefficients of correlation among the variables are 0.56, which is less than the threshold of 0.8 (Baltagi, 2015). This implies that there was healthy association among the variables and thus no indication of multicollinearity problem. This is justified by the result of the Variance Inflation Factor (VIF) with the highest value of 1.79, which is below the threshold of 10 (Baltagi, 2015).

Estimation results

The result of the Hausman test showed that fixed effect estimation would be the most appropriate techniques while the diagnostic tests results showed that there are presence of cross-sectional dependence problem, heteroskedasticity and serial correlation problem in the model. In order to correct the identified econometric errors, multivariate regression (fixed effect with Driscoll-Kraay standard error) was used to predict the relationship between the explanatory variables (past dividend,

earnings per share and agency cost) and dependent variable (market capitalization) as presented in Table 2.

Model

$$LMC = -1.595 + 0.02LLD_{i,t} - 0.001EPS_{i,t} + 0.16AC_{i,t} + 0.001DER_{i,t} + 0.004\Delta OCF_{i,t} + 1.180SIZE_{i,t} - 0.001SG_{i,t} + \epsilon_{i,t}$$

Interpretation

The results of the regression analysis as depicted in Table 2, revealed that LLD, with $t_{cal} (2.21) > t_{tab}(1.96)$; AC, with $t_{cal} (4.65) > t_{tab}(1.96)$; FR, with $t_{cal} (5.60) > t_{tab}(1.96)$ and SIZE, with $t_{cal} (17.04) > t_{tab}(1.96)$ significantly influence LMC. While, EPS, with $t_{cal} (0.76) < t_{tab}(1.96)$; ΔOCF , with $t_{cal} (1.02) < t_{tab}(1.96)$ and GRWTH, with $t_{cal} (0.04) < t_{tab}(1.96)$ implies that EPS, ΔOCF and GRWTH do not exert significant influence on LMC.

The coefficient of the regression result measures the magnitude and the direction of the relationship between the explained and the explanatory variables. LLD with a coefficient of 0.02 implies that a positive change in LLD would yield 2% increase in LMC; EPS has a negative but immaterial effects on LMC, with approximately -0.001 coefficient, a kobo increase in EPS would result to almost 0.1% decrease in LMC. AC has coefficient of 0.16, which means that a unit increase in Asset Utilization Ratio would lead to 16% increase in LMC. The FR with coefficient of 0.001 implies that a unit increase in FR would result to 0.1% increase in LMC; ΔOCF with a coefficient of 0.004 is an indication that a positive unit change in ΔOCF would lead to 0.4% increase in LMC. SIZE with coefficient of 1.180 implies that as SIZE of the listed manufacturing firms increases by a unit, the LMC also increases by 118% while GRWTH having coefficient of -0.001 means that as the firms grow in turnover (GRWTH) by a unit, there is approximately 0.01% reduction in LMC. The result of the coefficient of determination of 0.662, indicates that 66.2% change in the LMC is caused by the combined influence of the explanatory variables (LLD, EPS, AC, DER, ΔOCF , SIZE and GRWTH) while the remaining 33.8% is caused by other factors which are outside the scope of this study. This is an indication that the combination of the explanatory variables strongly influences the value as measured by LMC. Also, the result of the F-statistics with *p-value* of 0.000 (0%), implies that all the explanatory variables (LLD, EPS, AC, FR, ΔOCF , SIZE and GRWTH) jointly and significantly influence the dependent variable (LMC).

The result of the regression analysis revealed that past dividend positively and significantly influence value of Nigerian listed manufacturing firms; the finding corroborated the reports of previous studies conducted in

Table 1. Multicollinearity tests' results.

Variables	Pearson correlation matrix tests							VIF
	LLD	EPS	AC	DER	Δ OCF	SIZE	SG	
SG	0.01	0.11	0.18	0.03	0.08	0	1	1.06
SIZE	0.56	0.43	-0.14	-0.02	0.05	1		1.79
Δ OCF	0.05	0.03	0.05	0	1			1.01
DER	-0.06	-0.01	-0.02	1				1.01
AC	0.24	0.09	1					1.26
EPS	0.41	1						1.33
LLD	1							1.79

Source: Researcher's Computation (2018).

Table 2. Regression result.

Variable	Coeff	Std.Err	T-stat	Prob
LLD	0.020	0.01	2.21*	0.040*
EPS	-0.001	0.00	-0.76	0.455
AC	0.160	0.03	4.65*	0.000*
DER	0.001	0.00	5.60*	0.000*
Δ OCF	0.004	0.00	1.02	0.321
SIZE	1.180	0.07	17.04*	0.000*
SG	-0.001	0.00	-0.04	0.967
Constant	-1.595	0.42	-3.77	0.001

R-squared = 0.66, $F_{(7, 19)} = 335.67$, Prob > F = 0.00*
Hausman Test: $\chi^2_{(6)} = 16.7$, Prob > $\chi^2 = 0.010^{**}$
Test Parameters (testparm): $F_{(35, 658)} = 24.5$, Prob > F = 0.00*
Rho Test: $F_{(35, 677)} = 21.3$, Prob > F = 0.00*
Pesaran CD Test (Cross Sectional Dependence Test): $\chi^2 = 15.42$, Prob = 0.00*
Modified Wald Test (Heteroskedasticity Test) : $\chi^2_{(36)} = 1090.5$, Prob > $\chi^2 = 0.00^{**}$
Wooldridge Test (Serial Correlation Test): $F_{(1, 35)} = 169.01$, Prob > F = 0.00*

Dependent Variable: LMC, Significance @ *5%
Source: Researcher's Computation (2018).

Nigerian context by Adefila et al. (2014) and Ojeme et al. (2015). This is also the position of studies carried out in other countries as Indian by Thirumagal and Vasantha (2016). In Pakistan Gul et al. (2012), Iqbal et al. (2014) and Mohammed (2013) conducted such study. in Poland by Budagaga (2017); in Indonesia by Yustisiana (2017), in Vietnam by Ngo and Dang (2016), in Morocco by M'rabet and Boujjat (2016) and United States by DeAngelo and DeAngelo (2006); while, Geoffrey et al. (2017) also discovered a positive but insignificant relationship. Contrariwise, Egbeonu et al. (2016) reported a significant negative effect; while, Emeni and Ogbulu (2015) and Ozuomba and Ezeabsali (2017) who obtained negative but an insignificant relationship. Theoretically, the finding of this study align with the signaling hypothesis propounded by Lintner (1956), which postulated that dividend is seen as a vehicle to communicate information to the financial market about a

firm's future earnings and growth. In addition, that outside investors perceive dividend announcements and increase in dividend payout as reflections of management efficiency and good future profitability and therefore affecting the share price positively; thus resulting to increase in the firm value.

It is discovered that Earnings per Share negatively but insignificantly affect value of Nigerian listed manufacturing firms. This implies that an increase in earnings do not transform into value maximization of manufacturing firms. This result is consistent with the report of Okpara (2010) but negates the findings of Inyama and Ugah, (2015), Egbeonu et al. (2016), Emeni and Ogbulu (2015) as well as Ozuomba and Ezeabsali (2017) in Nigeria. It also contradicts the report from other countries as reported by Ngo and Dang (2016) in Vietnam, Mohammed (2013) in Pakistan, Yustisiana (2017) in Indonesia and Thirumagal and Vasantha (2016)

in India. The study also found that agency cost measured as asset utilization ratio has significant positive influence of firm value. The finding supported the report of Jose et al. (2010), Al-Nimer and Alslihat (2016), Mohammed (2013). The report of this study corroborated the assertion of Ang et al. (2000), and Singh and Wallace (2003), who posited that a high asset turnover is identified with efficient asset management practices and hence shareholders value creation. Firms with high asset utilization ratio is an indication of management efficiency and therefore subjected to lower asymmetric information and agency problems thereby enhancing value creation.

This paper discovered that ratio of total non-current debt to shareholders fund of listed manufacturing firm in Nigeria exert significant positive effect on its value; this result is consistent with the findings of previous studies conducted in Nigerian context by Adenugba et al. (2016), Adeyemi and Oboh (2011), Collins et al. (2012). Similar results were obtained in other countries as in Indian by Black (2001), Gill et al. (2011), Gompers et al. (2003), and Sharma (2007); likewise in Taiwan by Ming-Chang and Zuwei-Ching (2011), in Zimbabwe by Trevor (2014). In addition, Antwi et al. (2012) and Yartey (2006) reported significant positive relationship between debt-equity ratio and market capitalization. Contrarily, the finding of this study negates the reports of Geoffrey et al. (2017) in the case of Nairobi, and Ngo and Dang (2016) in Vietnam which reported a negative but insignificant relationship between leverage and firm value. The finding of this study aligned with Agency cost of free debt cash flow propounded by Jensen and Meckling (1976) as a rebranded work of Fama and Miller (1971), supported by Jensen and Ruback (1983).

The finding of this study revealed that positive but insignificant relationship between operating cash flow and value of listed manufacturing firms in Nigeria. This is also the position of Khanji and Siam (2015) in the context of Jordan, while Al-Zararee and Al-Azzawi (2014), Girish and Desai (2017); Lyndon and Paymaster (2016), as well as Wanjiru and Oluoch (2016) reported significant positive impact. On the other hand, the studies of Kadioglu et al. (2017); Brush et al. (2000); Park and Jang (2013); Heydari et al. (2014); and Wang (2010) reported significant negative effect of free cash flow on firm value (Tobin's Q) but Khraywesh, (2001) concluded that no significant relationship exist between the net cash flows and stock's market value. The study observed that firm size exert a significant positive influence on market value of Nigerian listed manufacturing firms. The report of this study corroborated the findings of Thirumagal and Vasantha (2016) in India, in Pakistan by Iqbal et al. (2014), and Nairobi by Geoffrey et al. (2017). This contradicts the reports of Kadioglu et al. (2017), Xiong (2016) and Amidu (2007). The finding of this study supported the assertion of Setiadharm and Machali (2017) which stated that the investors perceived that good health of a firm is a function of its size and would

prefer investing in such firms, therefore leading to an increase in value.

It is evident that sales growth has a negative but insignificant effect on market value of Nigerian listed manufacturing firms, which is consistent with the report of Abdolreza (2016), Ramezani et al. (2002), Paminto et al. (2016); while Bezawada and Tati (2017) reported a significant negative relationship. The findings of this study negates the reports of the studies of Amidu (2007), Rizqia and Sumiati (2013), Chowdhury and Chowdhury (2010) and Rehman (2016) who obtained a positive relationship between sales growth and market capitalization. The significant result of the F-statistics implies that all the factors are jointly significant and need to be critically considered in taking dividend decision by the management towards the achievement of value maximization objective.

CONCLUSION AND RECOMMENDATIONS

This study investigated the influence of shareholders' return on value of Nigerian listed manufacturing firms. The results of the study revealed that measures of shareholders' return compositely influence value of listed manufacturing firms in Nigeria. Past dividend, agency cost, debt-equity ratio and size are found to have significant positive effect on market capitalization of listed manufacturing firms in Nigeria; while earnings per share and sales growth have insignificant negative influence on value of a firm though the magnitude is immaterial.

The results of the relationship of earnings and sales growth to value contradict the prior empirical findings and theoretical propositions but are consistent with the finding of Okpara (2010). Okpara (2010) carried out his study during the hike in the crisis of global stock market in 2007 which Nigeria capital market was not left out. Efficient performance of firms in term of productivity and profitability do not significantly encourage investors due to distrust in the capital market. Majority of investors lost all their investment in the last capital market meltdown, which occurred a decade ago (2007). In addition, it is evident that value of a firm is not driven by internal factors alone but also by environmental factors especially, the current insecurity issue in Nigeria also seemed to pose a threat to investors. Therefore, for an entity to attain optimality and value maximization:

- (i) Managers should look beyond the signaling effect of dividend but place the interests of the key stakeholders (shareholders, management, employees, loan holders) as well as the growth and expansion of the business at the centre of their decision making on the proportion of earnings to be paid as returns and the nature of return policy to be adopted;
- (ii) Managers should improve on efficient management of the firm asset as to further enhance the value;

(iii) Government should mandate e-payment system of dividend and ensure that manufacturing firms update their database to capture all the information of the investors; government should make loan capital available to the manufacturing firms at a low and affordable lending rate in order to have adequate funding of their operations, thereby enhance their values.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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Full Length Research Paper

The use of electronic monitoring and work performance of employees in the banking industry in Ibadan, Southwest Nigeria

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Previous studies on electronic monitoring have not examined the relationship between electronic monitoring and work performance of employees. This study therefore examined the relationship between electronic monitoring and work performance using Bank XYZ branches in Ibadan, Oyo State as a reference point. Foucault's Panopticon and McGregor's X and Y theories provided the theoretical framework. The research design was both survey and exploratory. Comprehensive sampling technique was used to ascertain the number of respondents. The study covered both lower level employees and management staff of the bank. A semi-structured questionnaire was used to elicit information. Five Key Informant Interviews (KII) were conducted with the management. Non-participant observation was carried as well for the same purpose. Quantitative data were analysed using descriptive and chi-square test statistics at 5% level of significance while qualitative data were content analysed. Majority of the respondents (85.8%) were aware of the use of electronic monitoring in the organisation, while 81.1% had positive perception about the use of electronic monitoring. More so, 88.2 and 75.6% respectively viewed electronic monitoring as an objective performance tool and the use of electronic monitoring increased work performance. 46.5% agreed that e-monitoring creates suspicion in the work place. The use of electronic monitoring provides instant feedback on work performance ($\chi^2=9.134$); the use of electronic monitoring increases work performance ($\chi^2=9.455$) and electronic monitoring being used as an objective performance evaluation tool ($\chi^2=12.175$) had positive relationship with perception and awareness about the use of electronic monitoring. The results showed the existence of relationship between the use of electronic monitoring and employees' performance. The study recommended that organisation should inform employees before implementation of electronic monitoring system to produce positive reactions from employees.

Key words: Electronic monitoring, work performance, monitoring tools, supervision.

INTRODUCTION

Organisation is a central feature of all societies. Organisations are set up for different purposes and reasons-profit; non-profit; charity; security; environmental;

political etc. One unique feature of all these organisations is that they all have specific goals and objectives which are the basis of their existence. To achieve these goals

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and objectives, strategies, structures and systems are formed and put in place as well as rules and regulations to conduct and constrain the activities of members of the organisation toward achieving the goals and objectives for which the organisation is setup for (Adefolaju, 2012). To this end, organisational members are constantly monitored and placed under different forms of surveillance so as to ensure their adherence to the rules and regulations of the organisation. Every organisation needs some sort of monitoring system and supervision to guide and conduct the behaviour of their members and enhance their performance in their activities in the organisation.

Electronic monitoring is a constant and important feature in business organisations. Over the years, electronic monitoring has taken different forms, among which include direct supervision of work by superiors, keeping records and files about work lives of employees, use of timetables and work schedules, and recently in modern organisations the use of information/computer technologies to monitor work performance. The adaption of information and communication technologies (ICT) facilities to monitor employees has revolutionized the means by which electronic monitoring is carried out. These forms of monitoring collectively known as electronic monitoring or e-monitoring have been found to be more effective and cheaper than other forms of electronic monitoring (Lease and Gordon, 2005). The adaption is not far-fetched since, most organisations since the beginning of the 21st century make use of ICT facilities in the work place. The dynamic nature of work and newer trends of work activities has rendered traditional forms of electronic monitoring obsolete in many organisations (Ciocchetti, 2011). This can be found in industries such as telecommunications, banking etc. The number of people working from home has also increase the use of traditional forms of electronic monitoring difficult. These newer technologies have not only provided employers and management with more reasons to monitor employees' work activities and work behaviour, it has also contributes to the use of newer and effective techniques to monitor employees (Lease and Gordon, 2005). The need for electronic monitoring cannot be overemphasized in any organisations. It is the determinant factor that constrains employees' behaviour and conduct in the workplace; employees knowing that they are under intense surveillance and scrutiny will ensure conformity in the work place. Electronic monitoring is considered as a strategic tool for binding organisation. It has impacts on employees' motivation, work performance and subsequently on productivity (Giddens, 2010).

The problem

Monitoring of employees' work activities by management

has raised a lot of issues, bordering from ethical issues. There is a blurred line between what constitutes electronic monitoring and intrusion into employees' privacy, legal issues; in many countries, there are laws guiding the usage of electronic monitoring-although there are no such laws in developing countries (Roth, 2004) to health issues; overzealous monitoring has been attributed to be the cause of many work related stress disorder (Kolb and Aiello, 1996). There are still several reasons for monitoring the work activities of employees. Overtime employee monitoring reports have been the yardstick of evaluating work performance and assessing employees' work output (Thompson Sebastianelli, and Murray, 2009), limiting employer or management liability for employee misconduct, ensuring that employees' work activities are in line with organisational procedures. Employee monitoring can be seen as a motivating factor for effective work performance, promotion and increasing pay check (Reaves, 2014). Many studies have shown that there are several factors affecting work performance. Zahargier and Balasundaran (2011) categorized these factors into three categories; Individuals related factors (IRF): factors that are based on individual employee personality and attributes, which include factors such as values, beliefs, critical thinking, work attitude etc; Job related factors (JRF): factors based on what the jobs entail and what is needed for the jobs. Such factors include needs, self-concept, personal impact skills, competence, feedback, incentives, rewards etc; organisational related factors (ORF): which include factors like organisational culture, norms and standards used at work place, communication, supervision, colleague support and motivational packages. While these factors have profound and evidenced based effects on work performance as shown consequently in the research stated above, the researchers seem to relegate the importance of electronic monitoring as well as surveillance to the background. The physical setting of the work place which is also an important feature as well as a form of electronic monitoring in many organisations was also ignored as well as many other forms of electronic monitoring. Work performance is defined as the timely, effective and efficient completion of mutually agreed tasks by the employee as set out by the management (Tinofirel, 2011). For employees to perform their duties effectively there is the need for a system to effectively monitor their work activities. Monitoring is one of the important features of Max Weber classical work 'bureaucracy' and also a vital part of Frederick Taylor's scientific management approach, therefore making it an important feature of modern day organisations. The review of this research stream shows that the effects of electronic monitoring as a potential determinant of work performance have been largely ignored by many researchers especially within the banking environment; in fact there is a dearth of literature and researches on the relationship between electronic

monitoring and work performance. This fact is more noticed in developing countries, Nigeria inclusive. In the few literatures that exist that discuss the relationship between these two variables seem to be more implied than demonstrated. This is negligible, despite the fact that employees' monitoring and supervision is one of the key features of classical management theories and electronic monitoring has been a major feature of banks since the evolution of modern-day business organisations. Thus, the study sought to bridge this gap by the examining the use of electronic monitoring within the banking environment and how it affects work performance of employees in Bank XYZ. In order to be able to probe empirically into the problems stated above, the following research questions were formulated to guide the direction of the study: What form of monitoring system is used in the organisation? How do employees perceive monitoring in the organisation? What is the relationship between electronic monitoring and their work performance? What are the benefits and challenges of electronic monitoring in the organisation?

REVIEW OF LITERATURE

Work performance

Work performance is a vital part of any organisation; it is the soul of the organisation. Work performance is very important for organisational efficiency and effectiveness. It gives credence to the type of work behaviour exhibited in the work place. It is the catalyst for the achievement of the goals and objectives of the organisation.

The construct of organisational and employee work performance has been extensively researched on over the past two decades. Some studies have demonstrated the relationship between performance and several variables including: leadership style (Morris and Sherman, 1981); absence and absenteeism (Larson and Fukami, 1984; Oyedeki, 2012); Job commitment (Steers, 1977; Awe, 2012); Turnover (Angle and Perry, 1981); communication (Salami, 2012); Network involvement (Eisenberg et al., 1983), to mention but a few cutting across both private and public sectors as well as non-governmental organisations. Some researchers have taken a holistic view to study several factors affecting work performance. Zahargier and Balasundaran (2011) in their study carried out in the Garment factories in Chittagong, Bangladesh categorize several factors affecting work performance into three: individual-related factors, job-related factors and organisational-structural related factors. While these factors were found to have effects on work performance, the state of the effects (negative or positive) was not explicitly discussed by the researchers. In addition to these factors, Nickols (2003) also discussed the effects of the work environment on work performance, which he regarded as the most important factor that can affect work performance.

Prevalence of electronic monitoring in business organisations

With the computer revolution in the 50s and the emergence of the internet in the 70s, organisations have begun to turn to the use of information/ communication technology (ICT) to monitor employees' work activities. E-monitoring has gain more widespread use since the turn of the 21st century. These monitoring technologies have allowed organisations to monitor the everyday details of their employees' actions, communications and whereabouts both within the workplace and outside (Ciocchetti, 2011). Work flexibility is fast becoming a major trend in many organisations, as more employees are gradually working away from the workplace rendering any form of physical monitoring virtually impossible. The movement of the global society from the industrial age to the information age has given employees diverse opportunities unseen before to exhibit behaviour that is against organisational work behaviour and diversion of organisation facilities for personal usage. Management and organisations now face serious risks from employees' abuses of the usage of the internet and computer (Yerby, 2013). Employees have been found to waste valuable work time surfing the internet for personal reasons (social networks, favourite sports or fashion websites etc) thereby reducing employee work efficiency and productivity. Rogue employees now have easy access to vital information about the organisation which they can sell to rival organisations (Ciocchetti, 2011). Apart from the above negative reasons, the adoption of e-monitoring has been found to reduce human errors that may occur with the use of physical monitoring (Al-Rjoub, Zabian and Qawasmeh., 2008). Some work activities under monitor may go unseen or unnoticed using any form of physical monitoring but may be well capture using video or camera surveillance. Electronic monitoring has been found more effective in improving employee efficiency as well as being more effective in regulating employee work behaviour (McHardy et al., 2005).

Forms of monitoring tools in organisations

Giddens (2010) and Foucault (1977) identified traditional forms of electronic monitoring. They include: direct supervision, employees tab keeping/ keeping records on employees work activities and behaviour, attendance and time/work schedule monitoring, physical settings/ architectural outlook of the workplace, physical searches among others. However, it should be noted that these traditional forms of monitoring can be carried out using electronic forms of monitoring as well Al-Rjoub et al. (2008), Ciocchetti (2011), McHardy et al. (2005) and Yerby (2013) identified several forms of electronic monitoring: Video/camera surveillance. Telephone, text messaging and voice messaging monitoring, Access panel, Desktop/system monitoring and key logging:

Application tracking; document tracking; event timeline; log monitoring; password logging; screen capture; electronic monitoring software; printed job execution; window activity monitoring, Email monitoring, Internet monitoring: Internet use audit; search engine and social network monitoring; website and clickstream monitoring; Gps tracking; smart cards and remote monitoring-radio identification frequency device (RIFD) etc.

Benefits and challenges of electronic monitoring

While Al-Rjoub et-al. (2008), Ciocchetti (2011), Robin (2014) and Reaves (2014) have argued that electronic monitoring benefits the organisation, employers and employees respectively especially as a useful tool for performance and productivity appraisal and evaluation. Some other scholars, notable among them are Martin and Freeman (2003) follow a different path, which, while acknowledging that electronic monitoring have some benefits for organisation as well as the employers and employees nevertheless have spring up lots of challenges. Ciocchetti (2011), Court (2004), Gilman (1999) and Martin and Freeman (2003) have argued elsewhere that electronic monitoring decreases the amount of control employees have over their work by restricting access to information.

Reiman (2004) argued that Electronic surveillance destroys work autonomy as the “private space” of the employee is continually intruded upon through monitoring, employee autonomy in work will gradually be eroded. Employee would no longer be able to use his initiative to work. This is a situation which goes hand in hand with the introduction of the automaton system in the workplace which took away the autonomy of the workers as discussed elsewhere by Blauner (1964) and Braverman (1974). Martin and Freeman (2003) discussed another major challenge of electronic monitoring, which is the lack of trust that may ensure between employees and employers/management. They argued that electronic monitoring creates a “paternalistic” relationship between employees and employers.

Perceptions of employees about electronic monitoring

The 2004 American Management Survey (AMA, 2007) on electronic monitoring revealed that majority of the employees view monitoring as abrogating on their rights especially their right to privacy. Lease and Gordon (2005) were also of the view that employees do not believe employers have an unfettered right to intrude upon their privacy, or, more specifically, “employees generally believe that it is *illegal and unethical* for employers to intrude into employees’ “zone of privacy” regardless of how they may define it”. Although Lease and Gordon (2005) seem to suggest that the degree to

which employees accept monitoring or view it as an intrusion upon their privacy depends upon a number of factors including what is being monitored (work performance or deviant activities?), the purpose/justification of monitoring, the usefulness of monitoring, whether the employees are aware or have knowledge of being monitored, and the “fairness” of monitoring. The situation has exacerbated further with the use of information and technologies and other technologies to monitor employees’ work activities.

Theoretical framework

The study adopted Foucault’s theory of Panopticon developed further by Botan and McGregor X and Y theory. Michel Foucault adopted the Panopticon model originally developed by Bentham in the mid-19th century for prisons and later adopted by schools, hospitals and business organisations to explain how organisations are structured and organized in such a way that they exercise control over the activities of their members and employees, through the knowledge gained from monitoring them. With this knowledge in the hand of the observers-in this case the management or employers, members would be unable to resist such power the organisations exercise over them, thereby rendering subservient to the management. Instead of using violent methods such as torture, placing prisoners in dungeons as used in traditional societies, the Panopticon offered a more powerful form of internalized coercion which was achieved through the constant observation of prisoners, each separated from the others allowing minimal communication. This structure allows guards to observe each cell from their vantage position in a high central tower, unseen by the prisoners. Constant observation acts as a control mechanism and a consciousness of constant surveillance is internalized by the prisoners. The adoption of the Panopticon in formal organisations follows the same patterns except for the high security towers where the guards monitoring the prisoners are replaced with the use of video surveillance, cameras and public address systems, and other forms of electronic monitoring techniques are used where erring workers can quickly be seen and disciplined. According to Foucault (1977), the result of this surveillance is acceptance of regulations and docility- a normalization of sorts, stemming from the threat of discipline. Suitable behaviour and effective work performance is achieved not through total behaviour but rather through a “panoptic” discipline and inducing the employees to conform by internalizing the reality. This surveillance affects employees to initiate ideas and actions in the workplace and also kill creativity as employees feel constantly being monitored; they would be unable to use their initiatives to solve issues that may arise in the workplace due to fear; they go against organisation policy, while at the same make the observer (in this case the management) more powerful.

The actions of the observers/ the management toward the employees are based on constant monitoring and behaviour being exhibited. This power comes from the knowledge the observer has gained through constant monitoring of the employees, therefore such power over the employees may lead to suppression of ideas and oppression on the part of the management and the same time can lead to alienation and fear of being sacked by the management essentially turning the employees to 'Robots'. As the observed begins to think and act in terms of the observer, every action, thought, and word is analyzed before being acted upon for potential scrutiny by future or current observers due to the fear of being under surveillance; in other words, the observer does not even have to exist. The mere thought of being under surveillance can cause people's actions, thoughts and even minds to change. The observed would sooner begin to act the way the observer wants him to act. Baton (1996) observed further the effects noted in the physical panopticon can also be observed with the use of electronic surveillance, an effect he described as ELECTRONIC PANOPTICON. Like in the physical structure of Bentham's panopticon (Foucault, 1977), the inhabitants of the electronic panopticon are always visible and subject to the monitoring gaze of an authority, which in this case is always out of sight, though their equipment and means of monitoring can be seen. They are unable to know when they are being observed or not, whether these electronic forms are actually working or just there as deterrence. Other common characteristic between the electronic workplace and panopticon is the "communicative isolation of occupants", though in the case of electronically controlled workplace, the isolation may not be physical in nature. People sitting next to each other focusing on their own computer terminal, working on an individual task that is individually timed and monitored, are just as isolated as the prisoners of the panopticon. Even if they have the physical capability to communicate, they cannot risk engaging in a type of behaviour that is not part of their job. The contrast between the visible and the invisible creates a special type of power relationship (panoptic relation), in which employees are vulnerable and they have no choice but to act as if they were being observed all the time, even when it is not also. Botan (1996) mentioned two panoptic effects on employees; the first is internal effects, such as stress, uncertainty, a sense of vulnerability, or lack of privacy and the second is external, or behavioural (Botan and Vorvoreanu, 2000). Theory X and Y are models of the type of employees that management is faced with in the workplace. These models are used to prepare strategies and protocols on how to work with employees in order to ensure organisational efficiency and maximize production. For McGregor (1960), Theory X and Y are not opposite end of the same continuum, rather two different continua in themselves. To McGregor, an assumption that underlies Theory X is that employees dislike work,

therefore in order for efficiency, employees should be strictly monitored and supervised. On the other hand, in Theory Y, employees enjoy working and are highly responsible; employees need little or no supervision to be efficient. Supervision to these employees is not for control rather to increase their work performance. Theory X best describes employees who are found to be inherently lazy and not happy with their jobs. This theory assumed employees will show little ambition without an enticing incentives program or good remuneration. In such situation, management is usually rigidly strict on employees to ensure achievement of organisational goals and objectives. Workers under this category need close supervision, with a comprehensive system of control. Management under theory X would see the need for the use of electronic monitoring to control employees. Electronic monitoring would provide an objective and strict supervision to the extent the threat of its usage would bring about compliance in workplace. A major disadvantage of applying theory X would be the creation of a challenging and punitive atmosphere for employees. It would create mistrust and suspicion among employees. If electronic monitoring is applied in such work environment, employees would have negative perception about electronic monitoring and on a long run would eventually defeat the purpose for its application. Employees would see electronic monitoring as inimical to their work performance. Managers applying Theory Y, on other hand, assume that employees are ambitious, self-motivated and self-controlled. Employees enjoy their mental and physical work duties; for them work is natural as play. Employees' work performance and productivity is of high premium and organisational efficiency is enhanced. In organisations where the model is applied, managers believe that if given the right conditions, most employees would want to do well in their work activities. Employees would learn to seek out and accept responsibilities, exercise self-control and self-direction in achieving their objectives. If electronic monitoring is used in such organisations, employees would have positive perception about its usage in their workplace. Employees would see electronic monitoring as improving their work performance and productivity in the organisation.

METHODS

This study was conducted in branches of Bank XYZ scattered across Ibadan Metropolis. Ibadan is the capital city of Oyo State and it is regarded as the largest indigenous city in West Africa. The banks were selected because they are a new generation and upwardly cascading banks with high usage of internet facilities in their work activities. The researcher observed that, almost all work related activities carried out in the bank were usually executed with information and communication technologies, which made it valid and germane to posit that electronic monitoring systems would be employed to monitor employees. The bank under study has the highest rate of automated teller machine (ATM) and internet banking users in Nigeria (theunion.org, 2015).

The research designs were both survey and exploratory. Due to available number of employees in the study locations, the researcher employed comprehensive sampling technique in the selection of respondents. Sample size (135) for survey consisted of staff of the bank in Branches A (36), B (24), C (27), D (25) and E (23). Ad hoc staff like cleaners, messengers, drivers and security was excluded from the study. A semi-structured questionnaire was used to elicit information on employees' socio-demographic characteristics, forms of electronic monitoring used in the organisation, perception about the use of electronic monitoring, effects of electronic monitoring on their work performance and benefits and challenges of the use of electronic monitoring. Five key informant interviews were conducted with five key management staff to ascertain and collaborate the views of the management staff. Quantitative data were analysed using descriptive and Chi-square test statistics at 5% level of significance while qualitative data were content analysed with occasional verbatim quotations where appropriate. The following ethical principles were strictly adhered to: anonymity of respondents and the organisation used were kept; the respondents were informed abinitio of the main purpose of the study, methods used and benefits of the study; respondents' willingness to participate in study was sought through a consent form and letter of introductions were submitted at the various branches of the selected bank.

RESULTS

Socio-demographic characteristics of respondents

Table 1 reveals some of the socio demographic characteristics of the respondents for the study. This included their sex, age, religion, ethnic group, departments of the respondents. The data obtained on sex showed that 52.0% of the respondents were males while 48.0% were females. This indicated that there was a fair gender balance in the organisation. Data on age revealed that 30.7% of the respondents were within the age bracket of 20-24, 34.6% were within the age bracket of 25-29 and 34.6% were also aged 30 and above. This implied that the organisation comprised youths who are a strong workforce. Concerning the religion of the respondents, the data obtained in the table above showed that 71.7% of the respondents were Christians, 27.6% were Muslims and only 0.8% were traditionalists. This also implied that majority of the respondents were Christians. The table has data on the ethnic group of the respondents for the study. It showed that 9.4% of the respondents were Hausas, 20.5% were Igbos, 5.5% were Ijaw and 64.6% were Yorubas. This revealed that majority of the respondents were Yorubas and this can be likened to the fact that the study location for this research is predominantly a Yoruba community.

The data obtained on the various departments of the respondents revealed that 3.1% of the respondents were in accounting department, 6.3% in customer care, 10.2% in operations department, 43.35% of the respondents were in sales department and 37.0% in marketing. The respondents were spread across various departments in the organisation, but majority of the respondents were concentrated in sales and marketing departments

respectively. Based on their educational level completed, the data revealed that 22.8% of the respondents of the study were OND holders, 24.4% were HND holders, 39.4% were BSc holders, while 13.4 were postgraduate degree holders. This revealed that majority of the respondents have at least a degree in tertiary institution. With regards to the marital status of the respondents, data obtained in the table showed that 59.8% of the respondents were single, 37.05 are married and 3.1% were divorced. This implied that a greater percentage of the respondents were single. The table also showed that 53.5% of the respondents were permanent staff while 46.5% were contract staff. This revealed that a greater percentage of the workers were permanent staff of the organisation. The data on number of years of working experience of the respondents were also revealed in the table. It indicated that 48.8% of the respondents had 0-3 years working experience, 43.3% had 4-7 years working experience while 7.9% had 8 years and above working experience. Again, this implied that the respondents had varying years of working experience.

Awareness and forms of electronic monitoring system used in the bank

Table 2 shows varying level of awareness of electronic monitoring in the organisation. The data obtained revealed that 85.8% of the respondents were aware of electronic monitoring while 14.2% were not aware of electronic monitoring. This implied that majority of the respondents were aware of electronic monitoring in the organisation. The key informant interviewees representing the management agreed to the usage of electronic monitoring in their organisation, except for one who happened to be the relationship manager for small and medium scale enterprises who in his words stated that:

Eehhhn, well for me in this bank, I don't think we've started using electronic monitoring, though we have the cctv and the likes (KII/Male/Rel. Manager for SME/Bank A, Ibadan).

On the other hand, one of the interviewee responded that;

Ordinarily, they ought to know this, as you can see there are cctv cameras especially in the tellers' corner, the organisation's network facilities cannot be used for private activities, it would not even work (KII/MALE/cus/rel/manager Bank B, Ibadan).

Table 2 also shows the forms of electronic monitoring the respondents had awareness off. The data obtained showed that 11.8% of the respondents were aware of

Table 1. Frequency distribution of respondent's socio-demographic characteristics.

Variable	Frequency	F=127	Percentage
Sex			
Male	66		52
Female	61		48
Age			
20-24	39		30.7
25-29	44		34.6
30 and above	44		34.6
Religion			
Christianity	91		71.7
Islam	35		27.6
Traditional	1		0.8
Ethnic group			
Hausa	12		9.4
Igbo	26		20.5
Ijaw	7		5.5
Yoruba	82		64.6
Department			
Accounting	4		3.1
Customer care	8		6.3
Operations	13		10.2
Teller	55		43.3
Marketing	47		37
Educational level completed			
OND	29		22.8
HND	31		24.4
BSC	50		39.4
Post graduate	17		13.4
Marital status			
Single	76		59.8
Married	47		37
Divorced	4		3.1
Mode of employment			
Full staff	68		53.5
Contract staff	59		46.5
Number years of working experience			
0-3 years			
4-7 years	62		48.8
8 years and above	55		43.4
	10		7.9

attendance monitoring, 12.6% were aware of direct supervision of work, 7.9% were aware of time/work schedule monitoring, 10.2% were aware of video/camera

surveillance, 22.8% were aware of phone/messaging monitoring, 7.9% were aware of monitoring software, 5.5% were aware of internet usage monitoring, 18.1%

Table 2. Respondents' responses on awareness of electronic monitoring and forms of electronic monitoring used in the bank.

Question	Frequency F=127	Percentage
Are you aware of being monitored?		
Yes	109	85.8
No	18	14.2
What forms of electronic monitoring are you aware off?		
Attendance monitoring	15	11.8
Direct supervision of work	16	12.6
Time/work schedule	10	7.9
Physical searches	-	-
Video/camera surveillance	13	10.2
Phone/message monitoring	29	22.8
Monitoring software	10	7.9
Internet usage monitoring	7	5.5
Store files and records about employee work activities	23	18.1
GPS tracking for employee id card	4	3.1
What forms of monitoring does your organisation used?		
Attendance monitoring	11	8.7
Direct supervision of work	16	12.6
Time/work schedule	11	8.7
Physical searches	-	-
Video/camera surveillance	22	17.3
Phone/message monitoring	10	7.9
Monitoring software	12	9.4
Internet usage monitoring	29	22.8
Store files and records about employee work activities	8	6.3
GPS tracking for employee id card	8	6.3
Does the organisation monitor your computer usage?		
Yes	112	88.9
No	15	11.8
If monitoring of time spent, matter/content, or keystrokes is practiced, how would you categorize the monitoring?		
Routine	53	41.7
Occasional	52	40.9
Ongoing	16	12.6
Specified	6	4.7
Does the organisation monitor email Messages?		
Yes	89	70.1
No	38	29.9

were aware of monitoring of workers by storing files and records about employee work activities, and 3.1% were aware of GPS tracking for employee id cards. Also, many of the employees were aware of more than one options listed above. This awareness was in accordance with the forms of electronic monitoring identified by Ciocchetti

(2011), McHardy et al. (2005) and Yerby (2013). Other forms identified by Court (2004) include; access panel, GPS car tracking among others. On the hand the 2007 American management survey identified emerging forms of electronic monitoring which are now being used in various business organisations in western countries

among which include; finger and eye scanning as well as facial recognition.

In addition to these forms of electronic monitoring used in the bank, some of the interviewees identified other forms used. One of the interviewee responded thus:

Another new form of electronic monitoring which even though is not in the different branches except in the headquarters in Lagos. It can be used to monitor staff movement and access into restricted areas, for example the vaults and strong rooms where it is not expected that for most staff to be found there except for official activities. The access card blocks your movement to these restricted areas in the office, so that is it (KII/MALE/Asst, head of cash management/Bank A/Ibadan)

Table 3 shows the forms of electronic monitoring that respondents were aware of its usage in the bank. The data obtained showed that 8.7% of the respondents were well informed of the usage of attendance monitoring, 12.6% were knowledgeable of the use of direct supervision of work, 8.7% were aware of the use of time/work schedule monitoring, 17.3% were aware of the use of video/camera surveillance, 7.9% were aware of their phone/text messages being monitored, 9.4% were knowledgeable of the use of monitoring software in monitoring their usage of the computer, 22.8% had the knowledge of their internet usage being monitored, 6.3% were well informed of the fact that files and records about their work activities were being kept by their management, and 6.3% had the awareness of the use of GPS tracking for employee id cards. However, options from the table showed that many of the employees were aware of multiple options listed above. This showed that the organisation utilized several forms of electronic monitoring in monitoring employees. The interviewees also responded positively to the usage of these forms of electronic monitoring as well. Though, the manner in which the forms of monitoring shown in the table used in the bank were different howbeit according to the choice of the interviewees, two forms were prominent in their responses; computer usage monitoring and internet usage monitoring. As observed by the researcher, data obtained from the different forms showed that the video surveillance, internet/ bank monitoring usage, computer monitoring software were more commonly used to monitor the employees. The systems cannot be used for personal usage, before the computers were switched on for use in the bank, password created by the ICT units was needed before access is granted. An easy way of employees having the knowledge of being sacked is when password given to them for access to the computer was denied by the computer.

The table also showed whether the organisation monitored employees' computer usage. The data obtained revealed that 88.9% of the respondents revealed that

the organisation monitored their computer usage while 11.8% said that the organisation did not monitor the employees' computer usage. Based on the data obtained, it became evident that the organisation monitored the computer usage of their employees.

The table also revealed data on the frequency of monitoring of employees by the organisation. The data showed that 41.7% of the respondents were of the view that computer usage monitoring was routine, 40.9% perceived it as occasional, 12.65% were also of the view that it is ongoing, while 4.7% of the respondents classified computer monitoring has been specified. This buttressed the fact that the content on the computer and time spent as well as keystroke loggings were monitored, though routinely and occasionally. When asked if the organisation monitored their e-mail messages, 70.1% of the respondent said yes, while 29.9% answered no. These responses showed that the organisation actually monitored the e-mail messages of employees.

Perception of employees about electronic monitoring

Table 3 shows respondents' perception about electronic monitoring. The data obtained revealed that 81.1% of the respondents were of the view that electronic monitoring was positive, 7.9% viewed electronic monitoring in a negative way, while 11.0% had no perception of electronic monitoring. This implied that majority of the respondents for the study actually viewed electronic monitoring as a positive phenomenon. The table also revealed whether electronic monitoring intrudes on their privacy. The data obtained showed that 55.9% of the respondents said that electronic monitoring intrudes on their privacy while 44.1% said that electronic monitoring did not intrude on their privacy. This implied that a greater percentage of the respondents were of the opinion that electronic monitoring intruded on their privacy. Some of the interviewees did not agree with this fact, as one of them puts it;

Privacy ke, what is privacy in the bank, the moment you start work during work hours, everything you do at that moment is official, so for you to say it intrudes on privacy is false. The moment you are in the office you are supposed to do your core jobs functions and not private activities (KII/MALE/Asst. head of cash management, Bank A, Ibadan).

Employees were asked about their view on whether they should be consulted before electronic monitoring is used. The data obtained indicated that 55.1% of the respondents said that employees should be consulted before electronic monitoring device is used, while 44.9% said that employees should not be sought before electronic monitoring is used. This showed that

Table 3. Perception of employee towards electronic monitoring.

Question/statement	Frequency F=127	Percentage
What is your perception about electronic electronic monitoring?		
Positive	103	81.1
Negative	10	7.9
Don't know	14	11
Electronic electronic monitoring intrude on privacy		
Yes		
No	71	55.9
	56	44.1
Permission of employee should be sought before electronic monitoring device is used		
Yes	70	55.1
No	57	44.9
Electronic electronic monitoring is necessary for the organisation because it improves organisational efficiency		
Yes	101	79.5
No	26	20.5
The electronic monitoring policy in my organisation is well planned and implemented		
Yes	102	80.3
No	25	19.7
How effective is electronic monitoring in your organisation?		
Poor	29	22.8
Good	89	70.1
Don't know	9	7.1

employees have diverse opinion as regards to this issue; however, a greater percentage thought that employees' opinion should be sought before electronic monitoring device is used. Table 3 also showed the responses of employees on whether electronic monitoring policy in their organisation was well planned and implemented. The data revealed that 80.3% of the respondents said that electronic monitoring policy was well planned and implemented in their organisation while 19.7% said that it was not well planned and implemented. This implied that majority of the respondents viewed electronic monitoring policy to be well planned and implemented in their organisations. Table 3 revealed as well the respondents' response on how effective electronic monitoring is in their organisation. The data obtained showed that 22.8% of the respondents said that electronic monitoring in the organisation was poor, 70.1% said that electronic monitoring in the organisation was good, while 7.1% did not have opinion about effective electronic monitoring in the organisation. This implied that majority of the respondents were of the view that electronic monitoring in their organisation was good. The interviewees also gave positive responses as well. In the words of one of the respondents;

It makes work more efficient and make the employees

put in their best. I don't see it as a threat to them anyway. (KII/MALE/Cus.Rel.manager/Bank)

Relationship between electronic monitoring and work performance

Table 4 showed respondents' view about the relationship between electronic monitoring and work performance. The data obtained revealed that 88.2% of the respondents viewed electronic monitoring as an objective performance evaluation tool, while 11.8% never saw it as an objective performance evaluation tool. This goes to say that majority of the respondent believed that e-monitoring is an objective performance evaluation tool. Majority of the interviewees were also of the opinion as well. One of interviewee stated that:

It is a very useful tool for performance evaluation, yah yah very useful. It gives us evaluation analysis so that we can know whether they are really committed to their work or spend time on unnecessary thing (KII/MALE/Cus. Rel. manager/Bank C, Ibadan)

The table showed as well the responses of respondents on whether e-monitoring was capable of providing instant

Table 4. Relationship between electronic monitoring and work performance.

Statement	Frequency F=127	Percentage
Electronic monitoring can serves as an objective performance evaluation tool		
Yes	112	88.2
No	15	11.8
Electronic electronic monitoring is capable of providing instant feedback on work performance		
Yes	106	83.5
No	21	16.5
E-monitoring can be used to investigate misconducts in the organisation		
Yes	105	82.7
No	22	17.3
Electronic monitoring can lead to good work performance		
Yes	96	75.6
No	31	24.4
E-monitoring can create unnecessary work pressure		
Yes	80	63
No	47	37

feedback on work performance. The data in the table revealed that 83.5% of the respondents said that electronic monitoring was capable of providing instant feedback on work performance, while others said otherwise. This implied that majority of the respondent saw e-monitoring as an instrument that is capable of providing instant feedback on work performance. Majority of the interviewees also agreed that the analysis from electronic emonitoring can provide instant feedback. In the view of one of the interviewee, he noted that:

Yes, it is possible, it has more advantage than traditional forms of monitoring let say physical supervision, you can easily access the performance of that worker, you can note whether that particular worker is working effectively or not. Take for example, using cctv in the office, as they are working, the operator at the end of where the recordings are shown can easily see which of them is not at work or absent. Another one is keeping records about the employee work activities which nowadays are done with computer; you can easily access the employee staff and note the performance of the employee (KII/male/Asst. Head of Cash Mgt, Bank A, Ibadan).

Table 4 also showed respondents' views on whether e-monitoring could be used to investigate misconducts in the organisation. The data obtained state that 82.7% of the respondents said that electronic monitoring can be used to investigate misconducts in the organisation, while 17.3% said that electronic monitoring could not be used

to investigate misconducts in the organisation. Table 4 also revealed the responses of respondents on whether e-monitoring could lead to good work performance. It is evident from the table that majority of the respondents believed that excessive electronic monitoring could lead to good work performance. This is shown as 75.6% of the respondents said yes, while 24.4% said no when asked the question. Majority of the interviewee also agreed with this fact as well. In the words of one of the interviewee;

Everybody has been given key performance indicators, key job functions, you know, which have been made clear to each and everyone, therefore your performance in that line is monitored as that is where appraisal comes in (KII/Male/Rel Manager for SME/Bank A, Ibadan).

The table also revealed respondents' response on whether e-monitoring can create unnecessary work pressure. The data obtained showed that 63.0% of the respondents believed that e-monitoring can create unnecessary pressure, while 37.0 said otherwise. This implied that majority of the respondents said that e-monitoring could create unnecessary pressure in the work for workers in the workplace.

Benefits and challenges of electronic monitoring

The table showed respondents' views on whether e-monitoring can reduce wastage and cut organisational

Table 5. Benefits and challenges of electronic monitoring.

Can reduce wastage and cut organisational costs	Frequency F=127	Percentage
Agreed	83	65.4
Disagreed	28	22
Undecided	16	12.6
Is a good means of controlling work activities		
Agreed	99	78
Disagreed	22	17.3
Undecided	6	4.7
Can reduce wastage and cut organisational costs		
Agreed	83	65.4
Disagreed	28	22
Undecided	16	12.6
Can create a Poor work environment		
Agreed	21	16.5
Disagreed	101	79.5
Undecided	5	4
Can lead to conflicts between management and employees		
Agreed	54	42.5
Disagreed	61	48
Undecided	12	9.4
Can lead to low work motivation		
Agreed	48	37.8
Disagreed	58	45.7
Undecided	21	16.5

costs. The data obtained revealed that 65.4% of the respondents agreed that e-monitoring reduced wastage and cut organisational costs, 22.0% disagreed, and 12.6% were undecided. This implied that majority of the respondents agreed that e-monitoring can reduce wastage and cut organisational cost. The table also revealed the responses of employees on whether electronic monitoring is a good means of controlling work activities. The data obtained showed that 67.7% of the employees agreed that e-monitoring was a good means of controlling work activities, 24.4% disagreed and 7.9% were undecided. This goes to say that majority of the respondents viewed e-monitoring as a good means of controlling work activities and therefore they find the devices essential to the organisation. Table 5 showed the response of the respondents on whether electronic monitoring can create a poor work environment. The data obtained revealed that 42.5% of the respondents agreed that electronic monitoring could create a poor working environment, 48.0% disagreed and 9.4% were undecided. This indicated that a greater percentage

of the respondents were not of the view that electronic monitoring creates a poor working environment. This goes to say that employees have a good working environment irrespective of electronic monitoring devices in place. The table also showed whether electronic monitoring brought about conflict between management and employees in the organisation. The data obtained showed that 34.6% of the respondents agreed that electronic monitoring could lead to conflict between management and employees, 51.2% disagreed, 14.2% remained undecided. Electronic monitoring would not cause conflict between management and employees in the organisation. Table 5 also showed the respondents response on whether electronic monitoring of workers can lead to low motivation. The data obtained in the table revealed that 46.5% of the respondents agreed that electronic monitoring could lead to low motivation, 47.2% disagreed and 6.3% were undecided. This implied also that some workers believed that electronic monitoring can lead to low motivation while others did not. This showed that the perception of the effects or benefits of electronic

Table 6. Chi-square test of association between variables.

What is your perception about electronic monitoring?	Electronic monitoring is capable of providing instant feedback on workers performance		
	Yes	No	Total
(i) Positive	86(68.8%)	15(12.0%)	101(80.8%)
(ii) Negative	5(4.0%)	5(4.0%)	10(8.0%)
(iii) Don't know	13(10.1%)	1(0.8%)	14(11.2%)
Total	104	21	125(100%)
χ^2 Result	$X^2_C = 9.134; X^2_E = 7.396; DF = 3; LS = 0.05; AS = 0.028$		

What is your perception about electronic monitoring?	Electronic monitoring can serve as an objective performance evaluation tool		
	Positive	Negative	Total
(i) Positive	92 (73.6%)	9(7.2%)	101(80.8%)
(ii) Negative	7(5%)	3(2.4%)	10(7.4%)
(iii) Don't know	12(9.6%)	2(1.6%)	14(10.4%)
Total	111	14	125(100%)
χ^2 Result	$X^2_C = 12.175; X^2_E = 7.706; DF = 3; LS = 0.05; AS = 0.007$		

Awareness of electronic monitoring	The effect of the forms of e-monitoring used in my organisation			
	Positive	Negative	I don't know	Total
(i) Yes	82(64.6%)	17(13.4%)	10(7.9%)	109(85.5%)
(ii) No	9(7.1%)	2(1.6%)	7(5.5%)	18(14.2%)
Total	91	19	17	127(100%)
χ^2 Result	$X^2_C = 11.770; X^2_E = 9.110; DF = 2; LS = 0.05; AS = 0.01$			

monitoring was specific to each individual worker. Apart from these challenges identified above, the interviewees also identified other challenges which even though might not have adverse effects on the work performance of the employee; they are mainly structural in nature. These include power supply, network downturn and other structural issue.

Bivariate analysis

Table 6 presents a bivariate analysis of the respondents' perceptions and awareness of the use of electronic monitoring and a number of effects relating to work performance using Chi-square test at 0.05% level of significance. First, the table showed that the calculated value (9.134) was more than the table value (7.396). Therefore, this showed the existence of a significant association between perception about the use of electronic monitoring in the bank and electronic monitoring capable of providing instant feedback on the work performance of employees, as the significant value is 0.028, which is less than 0.05. This signified that perception about the usage of electronic monitoring in the organisation determined how the employees would view its effects on their work performance. Again, this implied that employees with positive perception about electronic monitoring usage in the bank were of the view that

electronic monitoring is capable of providing instant feedback on the work performance of the employees. Monitoring employees' internet browsing and web surfing especially social media sites, entertainment blogs, sport websites and other leisure sites during work hours could show how effective the employees are during work hours and what they do during this period. This can be used to juxtapose the work activities in a period of time and would prove how effective the employees are. Second, the table showed the existence of a significant association between perception about the use of electronic monitoring in the bank and electronic monitoring capable of serving as an objective evaluation tool, as the significance value is 0.007, which is less than 0.05. This signified that perception about the usage of electronic monitoring in the organisation determined employees view about electronic monitoring serving as a performance evaluation tool. This also implied that employees with positive perception about electronic monitoring usage in the bank viewed electronic monitoring as capable of being used to evaluate performance of the employees over a period of time. It can also be inferred from this information that electronic monitoring can be used as a means to reward compliance and sanction deviance. Data and feeds got from electronic monitoring can be used to view the work activities of employees. The banking industry is one industry where fraudulent practices among employees

are prevalent. There are stories of several clients where illegal and unaccounted deductions have been made from customers' accounts without their permission given by some of the interviewees and reported in newspapers as well. Hence, the researcher posits that strict monitoring of internet and computer usage, alongside video surveillance can prevent these fraudulent acts and culprits sanctioned. This was further buttressed by an example given by one of the interviewees.

Just of recent, staff were handed to EFCC; after a client reported that a large sum of money was deducted from his account without her giving any approval for such deductions, the bank took the case up and investigated the matter and the culprit who unfortunately happened to be her account officer was sacked and arrested by EFCC. The bank found out how she deducted the money from her accounts by going through his work activities on the computer in the office, that was the mistake she made. Her work activities on the system started from the day when the client observed the deductions which fortunately for us were always automatically saved and the end of the working hours every day. You know even if you try to delete it, it is not possible, that was where the missing money was deducted from (KII/FEMALE/Opr. Mgt./Mokola/Ibadan/)

Another example was given by another interviewee;

I know a former colleague who happened to be a manager in one of the banks near us (name withheld); he was arrested for giving loans illegally to some customers when upon expiration, the loans were not returned back and the supposed customers vanished. It actually turned to be a fraud by the man and according to what I heard, the bank carried out their investigation and he was arrested. He did not permanently delete all the information linking him to the case. It was actually on his office desktop without him knowing. It is not everything you put on the system, because everything done there can be seen in the headquarters, if cases like this occur so that investigations can quickly be done. You know, staff that their hands are not clean like his case can easily be detected and punished adequately. That is why here, we take great care in handling clients' accounts and we don't just handover accounts with large sums or high profile customers to any-how staff (KII/MALE/Asst. Head. Cash Mgt/Bodija/Ibadan/).

Hence, this signified the result as calculated through the use of chi-square perception about the use of electronic monitoring in the organisation and electronic monitoring serving as objective performance evaluation tool; it showed employees' perception about the use of electronic monitoring in their organisation and determined their choice of electronic monitoring serving as an objective performance evaluation tool. Third, the table

revealed that there is a significant relationship between awareness of electronic monitoring and effects of the use of electronic monitoring in the bank. This was based on the premise that the level of significance was lesser than the expected significant value, that is, $0.01 \leq 0.05$. This was further buttressed by the fact that the P value (11.770) was higher than the table value (9.110). The employees who were aware of the use of electronic monitoring in the bank (64.6%) were of the view that electronic monitoring had positive effects on their work performance. Employees who were aware of the usage of electronic monitoring are more likely to have positive views about effects of electronic monitoring on their work performance

DISCUSSION

While most organisations monitor the work activities of their employees for various reasons, few organisations in Nigeria have adopted the use of electronic/computer equipment and facilities to monitor employees. The few organisations that monitor their employee using electronic monitoring techniques are organisations that place high premium on the use of information and communication technology (ICT) in their work activities; these organisations include banks and telecommunication companies. The adoption of the use of ICT in the organisation reduced face to face interaction between employees especially during work hours at the same time; made work faster and efficient, eliminating human errors that may occur.

The research findings showed that an organisation uses various forms of electronic monitoring to monitor their employees, among which include some of the forms of electronic monitoring described by Botan (1995), Mc-Hardy et al. (2005), Ciocchetti (2011) and Yerby (2013). Though monitoring software packages on the computer (9.4%), internet monitoring (22.8%) and video surveillance (17.3%) were the most used forms of monitoring employee. Majority (88.9%) of the respondents also agree that their computer usage is being monitored. In the same vein, the respondents also agreed that traditional forms of electronic monitoring (direct supervision of work and employee files/records keeping) are being used in monitoring them as well. Majority of the respondents were aware that their emails received on the organisation's computers are being monitored, their phone conversation on the organisation's phone facilities are being monitored. These research findings asserted the findings of the 2007 American Management Association Survey, where 98% of the companies monitored the email messages of their employees for various reasons ranging from sabotage, sending messages that might mar the reputation of the organisation as well as sexual harassment /explicit messages which might lead to law suits and court cases

against the organisation. The study also observed that employees were informed of being monitored and they would choose to be informed before employment. The study also observed that the respondents had positive perceptions towards the use of electronic monitoring and they see electronic monitoring as being necessary for the performance of their key jobs functions. This assertion is in line with the theory posited by McGregor (1960). The theory posits that employees in theory are workers with high sense of responsibility and self-control in the pursuance of performing their duties in the organisation. These employees would readily accept the use of electronic monitoring as part of the policies of the organisation. One thing though is the fact that panoptic effects of electronic monitoring cannot be disproved, as it bound to happen, sooner or later. Control may become too strict and tough on work activities in no time. Another reason for the study not proving any form of panoptic effects is the prediction by Foucault (1977) that panoptic effects would result in an acceptance of regulations and docility. A normalization of sorts, stemming from the threat of discipline and a consciousness of constant surveillance becomes internalized. This situation was brought by constant use of electronic monitoring with offenders being strictly disciplined. The employees in no time would see the situation as normal. This was seen in the study as the respondents (81.1%) had positive perception about the use of electronic monitoring, and this could imply a normalization and internalization of being constantly monitored. This was further buttressed in the view of one of the interviewees:

“this is an organisation that takes discipline very seriously, so monitoring is part of the discipline of the bank”.

The study showed that electronic monitoring benefits the employees by improving their efficiency in performing their duties in the organisation. Electronic monitoring also benefits the organisation by reducing organisational costs. Electronic monitoring also benefits the organisation by providing security and protection against misuse and theft of organisation's assets by employees, as well as sabotage and selling of vital information concerning the organisation to rival organisations. On other hand some challenges may occur with the use of electronic monitoring in the organisation. Conclusively, network issues and incessant power supply caused challenges in the course of using electronic monitoring in the organisation. During network downturn, access to the use of the computer may not be restricted and an employee can use that moment to remove or access files that are out of bounds to him. In the same vein, incessant power supply in the country can make successful implementation of electronic monitoring expensive as alternatives would have to be sought for. Incessant power supply can create lockdown effects, where the electronic monitoring is not

working due to shut down in power supply and at that moment work activities could be abandoned by the employees. It is not uncommon to see employees gossiping during work hours when such shutdown occurs. Another challenge is maintenance issue. If equipment is not well maintained (e.g. susceptibility of the forms of monitoring being hacked by both outsiders and employees), it can affect the effectiveness of the use of electronic monitoring.

Conclusion

The study shows the use of electronic monitoring having a place of importance in the working strategies put in place to make the organisation efficient. The employees have good knowledge of the different forms of electronic monitoring and their usage in the bank. This knowledge has enabled the employees to be efficient in performance of their key job functions and reducing possibility of employees running afoul of organisation rules and regulation. The forms of electronic monitoring used in the organisation have been found to be effective, well planned and implemented by both the management and the employees. The employees on the other hand, with the use of electronic monitoring, have noticed increase in their work performance and the same time not leading to unnecessary work pressure. This fact is not far-fetched, judging from the increasing profile of the bank over the last decade and the position of the bank as one of the top ten banks in Africa. Given the inexpensive nature and capability of electronic monitoring to produce instant feedback and give objective analysis of employee's work performance, it becomes essential for organisations; particularly in organisations where high premium is placed on the use of ICT in their work activities. Computer technologies can be adapted for the use of electronic monitoring while in use by employees and at the same time electronic monitoring reduces costs incurred with the recruitment of more supervisors and human resources personnel. Before installation and usage of electronic monitoring in any organisation, employees should be made aware of its usage in the organisation. Awareness of its usage would eliminate any form of unnecessary or negative effects it would have on the work performance of the employees. Informing employees of its usage would enable a positive perception of electronic monitoring and produce positive reactions of its usage from the employees; it would at the same time make implementation more successful. Furthermore, it becomes imperative for organisation where electronic monitoring is used, to combine both traditional forms and electronic forms of monitoring in monitoring employees. While electronic monitoring has been found to be effective far more than traditional forms of monitoring, it has not been without its challenges and lapses; ranging from human factors to structural forms.

After all the technologies are human developed and controlled through human activities; at the other side of the spectrum where feedbacks are directed to and analysis on work performance are carried out, errors could occur. Combining traditional and electronic forms of monitoring would create an effective and well implemented electronic monitoring. This would eliminate errors that may occur with the use of one or the other forms of monitoring on its own.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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Full Length Research Paper

Impact of psychological contract fulfillment on micro-firm clerks: An empirical study in China

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The psychological contract is an international academic focus in the field of organization behavior and human resources management. Despite a large number of literatures in the psychological contract from different types of organizations, there is still a lack of exploration involving the micro business sector. This study aims to fill some of the gaps and analyze the intimate relationship with the target of micro-firm clerks in the context of China. Such analysis was performed employing the self-constructed framework of Psychological Contract Fulfillment (PSF), which has been built to reflect the specific characteristics in line with Chinese circumstances. Results show that the PSF has a positive effect on organization commitment and work acceptance while indicates the negative impact on the turnover intention, as perceived by the micro-firm clerks in the sampled cities. PSF for micro-firm clerks, on the other hand, acts as a partial intermediary role between Leader-Member Exchange (LMX) and work acceptance as well as turnover intention. PSF practices call for the significant need to improve internal behavior relations for micro-firm clerks and have the potential to create a type of organizational environment or culture for more sustainable exchanges that act as a positive role for stable human resources, preserving loyalty value and reducing the firms' cost of staff turnover.

Key words: Psychological contract fulfillment (PCF), leader-member exchange (LMX), micro-firm, organization behavior, China.

INTRODUCTION

For a long time, The relationship between psychological contract and organizational behavior is a highly debated topic between academics and corporate managers. In general, the psychological contract is considered an essential or nonnegligible element for the modern business (Coyle-Shapiro and Kessler, 2000; Aselage and Eisenberger, 2003). Nevertheless, the idea that enterprise size, psychological contract practices and individual

behavior are positively related is not yet universally endorsed, and the antecedents, as well as an operational mechanism for psychological contract, also attracted extensive attentions among researchers of different national backgrounds (Robinson and Morrison, 2000; Hui et al., 2004; Ahmad and Zafar, 2018).

As the "implicit agreement" for members of organizations, the practical significance of psychological

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contract is that members of the organization conduct its behaviors in a particular mental attitudes and derivative actions through the self-awareness of circumstances, which ultimately affect the achievement of goals for the organization (Herriot et al., 1997; Coyle-Shapiro and Kessler, 2003; Cullinane and Dundon, 2006). Taking the view of functions with various stakeholders in new firms, a series of pioneer researches have examined the relations in the traditional large-scale business precinct, but rarely involves the psychological contract theory in micro-firm sectors. Meanwhile, empirical evidence concerning the performance deriving from personal behaviors around small and medium-sized organizations is relatively scarce, especially in the context of the most populated developing nation of China. Measuring the status of psychological contract and understanding how it can affect the individual behavior by exogenous variables is crucial for both corporate managers and the decision-makers, due to its impact on a firm's operational value. At the same time, some scholars in the past decades have participated in public organizations to explore the significance and application of psychological contract theory. Coyle-Shapiro (2002) sets the personnel of the British government as the research target and found that psychological contract (relational contracts and transaction contract) is positively related to the performance and organizational commitment. Such judgment was further testified that there was a positive correlation between behavior and transactional contract fulfillment while organizational citizenship was negatively correlated. Coyle-Shapiro and Conway (2005) moved forward to probe an investigation of 347 organization staffs, found that there were significant differences between psychological contract and organizational support, drawing two component factors (perceived incentives for employers and employer obligations) in predicting the effects of organizational citizenship behavior. However, due to disparities in mini-sector organizations particularly the mode of operation as well as the dual transaction unity of different roles and ways of thinking, results of previous research were difficult to annotate the whole image of various types of organizations and reconcile with a map of reality. Just as Rousseau (2004) pointed out that psychological contract is formed by multiple entities of individuals, organizations and social environment with complicated interactions, thus it needs to explore the model formula in different circumstances.

At this point, it is worth noting that the psychological contract fulfillment (from now on referred to as PCF) is a core concept with components of psychological contract theoretic framework. Turnley et al. (2003) examined the relationship between PCF and three types of employee behavior and found that psychological contract fulfillment is more strongly related to citizenship behavior directed at the organization than to citizenship behavior directed at one's colleagues. According to Ahmad and Zafar (2018),

PCF has a positive impact on perceived organizational support (POS) and organizational citizenship behavior (OCB). The partial mediating role of POS between the dependent and independent variables was also confirmed. Moreover, more research has cast upon the presence of PCF and organization performance in the past years. Cheung et al. (2017) tested the mediated moderation model on 182 supervisor-subordinate dyads of three service firms in Hong Kong, and results indicated that PCF entirely negotiated the effects of mutual trust between supervisors and subordinates on subordinates' task. Performance deficiencies will reduce confidence leading to negative slack consequences, which is not conducive to organizational goals (Coyle-Shapiro and Kessler, 2002; Kickul and Lester, 2001; Turnley et al., 2003). However, regarding personal behavior in the small-sized business sector, the role of psychological contract is scarce from the core dimensions of PSF, and complete disclosure of mutual relations has not yet adequately revealed in the previous analysis.

This study aims to tackle the aforementioned issue and fill the gap within existing literature that leaves the micro-firm, as well as comparative data uncovered. Starting from the conceptual framework, this work attempts to delve deeper into the target of micro-firm clerks by introducing psychological contract theory and disclose its role in the performance on organizational behaviors (affective commitment, job support, turnover intention, etc). Additionally, it introduced the critical variable, Leader-Member Exchange (LMX), to further explore the mediation role within PCF for micro-firm clerks (from now on referred to as MFPCF) in the dynamic process.

LITERATURE REVIEW AND HYPOTHESES

The popularity that psychological contract theory has gained over the past decades has given birth to a vast stream of academic works that explore its nature and effects on business firms. From an organizational point of view, more studies have started from the relationship between psychological contract recognition and the right work behaviors of firms implementing it. As previously mentioned, however, it is the situation that no consensus regarding the effects of psychological contract practices on individual performance has been reached (Du, 2009; Conway and Coyle-Shapiro, 2012; Ruokolainen et al., 2018). More specifically, various authors highlight a statistically relevant connection between psychological contract and performance (Turnley et al., 2003; Katou and Budhwar, 2012; Wu and Chen, 2015), while another group of researchers show ideas of reservation (Gardner et al, 2014). This situation may be the consequence of validity issues among the various measures for the selected explanatory variables and the application circumstances used to convey the verification analysis, which is also reflected on the application of PCF in

different types of organization sectors. According to Henderson et al. (2008), PCF refers to “employees’ perceptions that, overall, the organization has fulfilled its terms of the contract equitably”. Perceptions of fulfillment have been positively linked to employee contributions to the organization, such as in-role performance and OCB. A growing number of employers nowadays incorporate PCF in their human resource arrangement, as they prefer employees with a higher loyalty for a work commitment. Prior research suggests that psychological contracts push social exchange that exists between employees and organizations (Morrison and Robinson, 1997; Carbery et al., 2003). The relationship is made up of the actions that an employer engages in with the belief that the employee will reciprocate behaviors in one way or another. Thus, employees are likely to feel frustrated by the organization’s failure to live up to its obligations and will be inclined to take actions to readjust the employment relationship, such as the reduction extent of contribution (Robinson, 1996; Turnley et al., 2003; Hui et al., 2004). More prior research focusing on different types of employment relationships suggests that PCF has to a certain extent linked with organization behaviors. In general, some empirical studies showed that PCF and employee attitudes are intertwined around organization elements including work performance, organizational citizenship behavior, corporate trust, employee turnover, etc. (Johnson and O’Leary-Kelly, 2003; Sturges et al., 2005; Katou and Budhwar, 2012; Tseng and Wu, 2017). Members of the organization receiving appropriate PCF have higher trust, retention intentions and perceived organizational support (Coyle-Shapiro and Kessler, 2000; Turnley et al., 2003). From the ideal stakeholder point of view as well as within the theory of Social Change, Lambert et al. (2003) and Akhtar et al. (2015) studied the relationship between colleagues, job enrichment and satisfaction in contract fulfillment, found that the element of job satisfaction is correlated with the performance of high incentives. Incentives to fulfill job satisfaction depend on the nature of carrots, a degree of satisfaction fulfillment with incentives tends to increase the level of commitment to enhancing the incentives.

Additionally, performance incentives continue to increase over time, and satisfaction continues to improve while the work richness, vocational training and other responsibilities to fulfill promises tend to raise the level of performance incentives when it grows beyond the work commitment. Coyle-Shapiro and Conway (2005) pointed out that there was a significant difference between the incentives for employers obligations, and the perceived organizational support positively correlates with, on the contrary, observed corporate support in employer obligations. Perceived corporate support and PCF of the two components operate well in predicting organizational citizenship behavior.

In recent years, scholars have begun to differentiate between targets of citizenship behaviors (McNeely and

Meglino, 1994) distinguish citizenship behaviors which are intended to benefit the organization and citizenship behaviors which are designed to help specific individuals within the organization. Morrison and Robinson (1997) suggest that PCF is likely to be more strongly related to citizenship behaviors directed at organization than to citizenship behaviors targeted at specific individuals within the organization. Based on their research, psychological contract breach in some cases could lead individuals to band together if they feel betrayed by the organizational policies. When psychological contracts go unfulfilled, both (Robinson and Rousseau, 1994; Morrison and Robinson, 1997) suggest that employees’ attributions regarding the breach play an essential role in determining how they will respond. How an employee chooses to return is likely to be determined by the magnitude of the discrepancy in PCF.

On the other hand, regarding what effect PCF would cast over the turnover intention, Suazo et al. (2005) found a negative correlation and empirical studies show that employees perceived PCF with a turnover as a tendency predictor (Collins, 2010). More studies suggest that individuals are likely to alter the position when they understand the organization’s actions to be short-sighted and unjustifiable. Thus, responses to psychological contract breach may be active when employees believe that the organization is unwilling to live up to the commitments (Robinson and Morrison, 2000). Specifically, employees will reduce both their in-role performance and loyalty to a more significant extent when they perceive that the psychological contract breach overtakes their tolerance and that the organization intentionally renege on its promises. According to the research mentioned earlier, this paper presents the micro-firm clerks as the PCF testing target (from now on referred as MFPCF) and expects to disclose the correlations around MFPCF from such four dimensions as job performance, organizational commitment, the degree of work recognition, turnover tendency. The hypothesis assumed as summarized as follows in H1 to H5:

- H1: MFPCF has a positive impact on job performance;
- H2: MFPCF has a positive impact on organizational commitment;
- H3: MFPCF has a positive impact on the degree of work recognition;
- H4: MFPCF has a negative impact on hurts turnover intention;
- H5: Work recognition is negatively correlated to the turnover intention

Besides, as an important essential concept in organization management, leader-member exchange (LMX) operates at multiple theoretical levels to directly influence employee perceptions and behaviors in the employment relationship (Tsui et al., 2006), Liden et al., 2006).

LMX is defined as mutual respect, trust and responsibility for implicit relations in members of the organization and their superiors through reciprocal exchanges on the psychological contract. Overall, previous LMX literature distinguishes between low- and high-quality within groups relationship: the former is based upon principles of economic or transactional exchange, and the latter is driven by social exchange processes (Henderson et al., 2008). Subordinates in a high-quality LMX relationship may offer higher levels of contributions to repay their managers' extra-role behaviors, while differentiated LMX relationships in a workgroup would also influence individual evaluations of their obligation to the organization. Thus, Henderson et al. (2008) contended that perceptions of PCF operating at the personal within-group level would account for the relationship between LMX and employee in-role associated with individual-level perceptions of LMX.

As is often seen as organizational superiors incarnation or representative, in the context of Chinese culture, corporate members rely more on establishing a special relationship with superiors to strengthen identification. Thus the PCF and LMX correlation may exist relatively close. In reality, one tendency highlights its potential trait, namely, when superior members sustain a healthy quality of personal relation, the members of the organization tend to perceive PCF realized and display relatively excellent performance. In recent years, researchers in the field of China management academia designed to verify how psychological contract could operate over the organizational members' attitudes towards the behaviors, while the LMX quality level on PCF conceived more consensus. Accordingly, this study absorbs previous research fabrics and put forward the hypothesis of H6:

H6: LMX quality has a significant impact on MFPCF

More prior studies found that people with high-quality LMX will be a member of more substantial contribution in the organization, and low-quality members may perceive a low degree of PCF (Ilies et al., 2007; Henderson et al., 2008). Some scholars have adopted empirical evidence to explore the moderating factor of LMX. Restubog et al. (2010) used a test of two competing perspectives to verify the moderating effects of LMX in the psychological contract breach employee. Lee (2017) found that LMX can serve an intermediary between satisfaction and performance in work implementation. Analysis performed to the subjective perception of psychological contract affects LMX quality, which can be inferred LMX behavior and attitude of clerk work. Here we tentatively establish two behavioral variables regarding the degree of recognition and job turnover intention, which are hypothesized as H7 and H8.

H7: MFPCF acts as an intermediary between LMX and degree of work recognition; H8: MFPCF acts as an intermediary between LMX and turnover intention

METHODOLOGY

This research aims to test the emotional impact of PCF, organizational behavior and LMX on the micro-firm basis, under the national background of transition China. Considering the specifics and previous experiences, the study conducted the field survey and collected data through the channel of the self-constructed questionnaire.

scale and test

The level of variables is the most significant factor in the application of the questionnaire, which directly decides the validity of the research. According to prior literature, currently, it has not yet appeared specific PCF scale for the micro-firm personnel. Based on the norms and management ethics in China, it is the priority to build scales with Chinese characteristics to fit the specific scene. For such purpose, the self-construction operation is done as the following.

First, we gather the previous domestic refining PCF on organizational responsibility as a pre-test source (Table 1), and also draw information concerning foreign scholars like Hopkins (1998)'s better-verified questionnaire. On this basis, team members in the research project further make use of existing interpersonal resources to get opinions around the element of PCF, using e-mail, social network plus consultation approach to obtain a random sample of 22 micro-firms for the subjective perceptions on the liability of organizational responsibilities.

Secondly, more than 70 items were generated by combining, transforming, merging the surveys from micro-firm sectors to form an initial questionnaire in which questions were used Likert- 5 scale form, where 1 means "very important" and 5 means "least important". Then 150 copies were distributed to MBA students spreading in the city of Xi'an and Xuzhou. 119 valid questionnaires were finally verified. We use SPSS16.0 for exploratory factor analysis by principal component extraction factor with basic features in following Tables 2 and 3:

The factor loading results show that it is suitable for factor analysis, and then we delete a few items (loading values <0.6) to eventually obtain 29 liability entries. Then we use the same approach to process the output of the following table and achieve 37 items of organizational responsibilities (Tables 4 and 5)

Feasibility and positive test were used in the standard form of a self-report questionnaire, and each variable is derived from the same research object with the statistical significance that occurs on the common method bias (Common Method Variance, CMV), mainly taken during this study. At the same time, for the reliability purpose as well as operational test in refining the questionnaire, the following preventive measures were adopted: (i) part texts of items were made reverse description to avoid contradiction response by the surveyed; (ii) different scales were involved with changing pattern of sound guidance; (iii) the questionnaire was demanded to fill out in anonymity.

Samples

According to the pre-test results, the study completes the final MFPCF Scale. Taking into account the survey resource channel, the questionnaire is distributed to micro-firm clerks in four selected cities as Xi'an, Nanjing, Jinan and Xuzhou by taking direct field visits, e-mail, the social network from the late month period of 2017 and 2018. The surveyed individuals were all employed with a full-time position. To ensure the access to investigators, data collection is entirely anonymous and takes postcards, commemorative stamps and tiny gifts. When collecting questionnaires department heads and the subordinate specialist was checked to ensure the

Table 1. Primary psychological contract fulfillment content both at home and abroad.

Researcher	Organizational responsibility	Members responsibility
Robinson et al. (1994) and Morrison and Robinson (1997)	Equitable remuneration, attractive welfare, rich content of the work, performance incentives, growth and development opportunities, promotion; supportive work environment, advancement, job security sufficient and appropriate resources.	Loyal to the organization, confidentiality, accepted work adjustment, voluntarily assume its duties work, overtime, refused to support the competitors, obedience to adjust internal working arrangements, keep trade secrets, accepted before leaving informed, least two years for the organization
Herriot et al. (1997)	Payroll, welfare, justice, safe, trust, negotiation, friendliness, and stable	Loyalty, dedication, integrity, care, maintenance of organization image
Thomas and Anderson (1998)	Performance incentives, remuneration, humane care, trusted understanding, work enrichment, participation in social work, fair, gives staff autonomy, stable and secure, and career advancement	Loyalty to the organization and solidarity
Coyle-Shapiro and Kessler (2003)	Salaries and benefits, job security, good career development, participation in decision making, trust support, training, and enjoyable work	Loyalty mutual care order maintenance of the sector
Qing et al. (2009) and Chongguang (2009)	Good benefits, promotion opportunities, career development, learning opportunities, equally fair treatment, fully trust, cooperative atmosphere, friendly work environment, majesty face maintenance	With people, good team spirit, initiative with superior work, threw himself into work, compliance with organizational discipline rules and regulations, overtime work, proactive maintenance leading authority

Table 2. Exploratory factor analysis for "member responsibility" in micro-firm.

Total VAR ratio	KMO	Bartlett sphericity test	df	Sig.
71.032%	0.928	6220.156	72	0.000

effectiveness of information. In this study, we distribute a total of 700 hard plus electronic questionnaires, and 523 surveys were eventually returned, yielding a response rate of 74.7%. Valid samples meet relevant statistical analysis size requirements of samples.

Demographic characteristics of the survey are as follows: The subordinate sample was 72.7% male, and the supervisor sample was 59% male. The average age of supervisors was 43, and the average organizational tenure was 9.17 years (or, roughly, 9 years and one month); the educational level for attainment of college and below, undergraduate, graduate and above are 23.7, 59.1, and 17.2%, respectively.

Reliability and validity

According to Harman Single Factor Analysis, it showed that the unrotated factor *f1* before the first defined variables explained all measurement items 39.1% of the variation in the overall variability. Meanwhile, the total linear results show that the tolerance value between different variables was over 0.6, while the ANOVA expansion factor (variance inflation factor; VIF) is less than 2. Thereby, it can be determined that the introduction of the variables have no serious Collinearity Common Method Bias.

Scale constitutes reliability of the indicators reflecting the variable internal consistency (usually Cronbach's alpha for validation). In

Table 3. Exploratory factor analysis for "organization responsibility" in micro-firm.

Total VAR ratio	KMO	Bartlett sphericity test	df	Sig.
71.032%	0.928	6220.156	72	0.000

Table 4. EFA results for the variable of "organizational responsibility."

Factor dimension	Organizational responsibility	Loading value
Job security	Supply stable and reasonable salary	0.831
	Evaluation open, just and fair	0.799
	Effective promotion channel	0.761
	Provide appropriate benefits	0.683
	Scientific performance guarantee	0.616
Career advancement	Offer a variety of training and development opportunities	0.938
	Provide rotation, networking opportunities	0.774
	Emphasis on career planning	0.671
	People post-match	0.625
Occupational balance	Moderate workload pressures moderate	0.868
	Work autonomy	0.851
	Work richness, and create a positive atmosphere	0.744

Table 5. EFA results for the variable of "micro-firm clerk responsibility."

Factor dimension	Micro-firm clerks liabilities	Loading
Professionalism	To perform job duties	0.933
	Proficient, efficient	0.917
	Studying business, improve the level of problem-solving	0.826
	Practical work, rigorous, and actively	0.773
	Lead by example	0.714
	Actively participate in business skills training	0.661
Professional ethics	Impartial, upright style	0.943
	The overall situation	0.737
	Law-abiding, self-discipline	0.912
	Loyalty	0.895
Social relations	Harmonious colleagues organizational relationships	0.883
	Psychological adjustment	0.779
	Physical and mental health	0.696
	Dilute personal gains and losses	0.759

general, Cronbach's $\alpha > 0.7$ is considered to be appropriate. Combined with existing validation scale reliability test for the preparation of MFPCF as well as the re-factor test, results show that it is compliance with the criteria. This indicates that the variable structure used in this study showed the right internal consistency.

Construct validity is a measurement generated between main variables assumed capacity through convergent validity and discriminant validity. An indicator factor examines convergent validity in the measured value of the path in given reliability (95%). In general, the path value > 0.6 is generally considered appropriate.

Table 6. Discriminant validity test of latent variables.

Factor variable	1	2	3	4	5	6
MFPCF	-	-	-	-	-	-
WOR.PER	7.36	-	-	-	-	-
ORG.COM	10.27	7.01	-	-	-	-
LMX	12.25	18.02	24.19	-	-	-
WOR. REG	13.24	19.16	20.35	16.02	-	-
TUR.INT	15.98	18.26	17.31	22.89	11.19	-

Table 7. Fit index of MFPCF conceptual model.

χ^2/df	SRMR	GFI	NNFI	CFI	RMSEA
3.82	0.053	0.86	0.91	0.92	0.064

Table 8. SEM results of MFPCF conceptual model test

Hypothesis	Path coefficient	t-value	Adjusted R	Result
H1: MFPCF → job performance	0.036	1.13	0.45	Not support
H2: MFPCF → Organizational Commitment	0.39**	15.72	0.24	Basic support
H3: MFPCF → Work recognition	0.45***	18.72	0.41	Strong support
H4: MFPCF → turnover intention.	0.37***	-5.93	0.28	Basic support
H5: Work recognition → turnover intention	0.51***	-8.26	0.09	Strong support
H6: LMX → MFPCF	0.38**	7.09	0.17	Strong support

*** and ** represents correlation coefficients are statistically significant at $p < 0.001$ and $p < 0.001$ respectively.

This study used Confirmatory Factor Analysis (CFA) in testing convergent validity, and the model fit indices are as follows: $\chi^2/df=2.17$, RMSEA=0.079, CFI=0.83, NNFI = 0.84, SRMR=0.056. Meanwhile, metric measurements were also applied to test with the final path value of more than 0.6, indicating that the variable has good convergent validity.

Discriminant validity measurement indicates different variables unique: it built possible permutations and combinations of factor variables, making two variables of various factors related to the relationship between the two to calculate the different combinations of the model χ^2 . Results show that there are significant differences ($p < 0.01$), and these two variables are statistically significant. Table 6 provides the discriminant validity of the test. It showed that all the variables used in this study meet the requirements of discriminant validity.

RESULTS

This study used Lisrel 8.80 software as the fundamental equation tool to make an analysis. First, we use a relative path in SEM analysis to test the hypotheses (H1-H6); secondly, according to the mediating test method performed by Hue Kyung et al. (2016), we take authentication for the mediating effect on hypotheses (H7, H8).

As designed in the previous text, it has constructed

assumptions of the conceptual model and completed a validity-reliability testing as well as variable attributes. The results are displayed in a better model fit within a reasonable range (Table 7), while the final testing results by SEM are shown in Table 8.

The test results show that hypotheses H1-H6 have been well verified, in which assuming H3, H5, H6 achieve a significant level of $p < 0.001$. From the conceptual model fit indicators, as shown in Table 7, the value of χ^2/df is 3.82 (less than the maximum limit of 5), SRMR value is 0.053 (less than the maximum limit of 0.1), RMSEA value is 0.064 (less than the maximum limit of 0.1), GFI value is 0.86 (higher than standard 0.8). All these values fit the recognized requirements of validity. Thus, the conceptual model achieves a better fitting effect, and the verification results meet the basic expectations for rational analysis.

The hypotheses H7 and H8 aim to explore the LMX intermediary role in influencing the variable of MFPCF recognition and turnover intention. Table 9 shows that LMX recognition plays its function path through MFPCF and turnover intention. The results indicated that the degree of LMX recognition has a direct positive impact on turnover intention but manifests an immediate negative impact when adding MFPCF factors. The positive and

Table 9. The testing results of LMX mediating effect

Structural path	Model 1	Model 2	Model 3	Model 4	Model 5
LMX→ Work recognition	0.18	0.12	-	-	-
LMX→ turnover intention	-	-	0.29**	0.36*	-
LMX → MFPCF	-	-	-	-	0.422
Comparative ΔR^2	-	0.034	-	0.12	-
Standard error	0.01	-	0.06	-	-
t-value	-	-	-	6.33	-8.71
p-value	0.004	0.001	0.000	0.000	0.000

***and**represents correlation co-efficients are statistically significant at $p < .001$, $p < 0.001$ respectively.

negative effects display the state of fall / rise in statistical significance indicating MFPCF factor is partially mediated in the testing process.

It can be seen by calculation that LMX affects the variable "degree of recognition" through MFPCF with the value of mediating effect 0.516. This result indicates that MFPCF between LMX and work recognition acts as part of the intermediary role with the mediating 51.6% of the total effect. LMX affects "turnover intention" through MFPCF with mediating effect of 0.3376, indicating MFPCF acts as part of the intermediary role between LMX and turnover intention with mediating 33.76% of the total effect. In addition, also, MFPCF variable also affects turnover intention through the work recognition with mediating effect value of 0.3931 by calculation.

DISCUSSION

Based on psychological contract theory and research fruits, this article is subject to micro-firm in China to build a conceptual model on MFPCF other than individual element. The empirical results show that the degree of MFPCF recognition has a significant positive effect on turnover intention, which previously has been verified on the private sector and consistent with the proposed hypothesis. In addition, the leadership member exchange (LMX) variable is positively related to MFPCF through the intermediary role effects, but possesses the negative impact with turnover intention. LMX and work recognition, turnover intention plays the intermediary role with the mediating effect of 51.6 and 33.76%, respectively. In other words, a micro-firm clerk with the superiors is relatively high in level of responsibility, for its perceived organizational performance in their work recognition will serve as a positive impact, and the corresponding turnover tendency will be reduced.

The significance of this study focuses on two aspects: firstly, the theoretical framework to some extent explains the work behavior mechanism of micro-firm clerks, as might extend the validation to likewise mini business organizations. Secondly, it has explored the LMX mediating effect in the framework of MFPCF. Although

previous studies have addressed the role of leader-members relationship in structuring internal influence of organization, it has not disclosed in the micro-firm an intermediary function in PCF as well as operational mechanism. In practice, the finding for making up such defects could play the part to motivate personnel management towards harmonious and human-oriented relations. To maintain good relationships among subordinates and strengthen overall performance, it is necessary to obtain the trust of the organization members, which largely determine the organization's development in the long run. Also, the work behavior for micro-firm clerks is directly reflected in the leadership, the higher the relationship serves, the better clerks establish a psychological contract and promote the work duties in its commitment. Superior leadership personality and the ability to motivate positive moral values will affect the subordinates trust and loyalty to the organization. Thus, leaders in the micro-firm ought to demonstrate a good "benchmark" image and promote members for the psychological identity; while the organizations should also strengthen identification coupling with effective responsibility construction (including leadership and accountability). Comparability, members in the micro-firm, tend to build a sort of "consensus" to take actions consistent with its commitment duty, work recognition, sense of belonging to enhance the performance yielding with lower turnover intention.

Restricted by investigation resource, this study sample has not covered departments of clerks in more regions, which makes the interpretation limited. PCF formation requires a process inseparable from the long-time tracking. Future studies would overcome limitations of data acquisition, and strengthen the longitudinal design to verify the statistical analysis. Additionally, owing to that dynamic tendency in the member behaviors of the organization in the micro-firm would change the management operation norms, examining MFPCF process requires researchers to participate fully in the practical scene of organization and sustain long-term track. Future research can be enriched from the aspect of MFPCF role in external correlations. More discussions may focus on a comparative study of internal performance

evaluation mechanism in psychological contract fulfillment between large organizations and micro-firm business counterparts.

CONFLICT OF INTERESTS

The author has not declared any conflict of interests.

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