

**THE INFLUENCE OF NUMERICAL FLEXIBILITY ON EMPLOYEE TURNOVER IN SMALL MEDIUM ENTERPRISES IN KENYA****Peter O. Magero**

PhD. Student, Jomo Kenyatta University of Agriculture and Technology, Kenya

**Prof. Romaneus Odhiamho**

Jomo Kenyatta University of Agriculture and Technology, Kenya

**Dr. Wario Guyo**

Jomo Kenyatta University of Agriculture and Technology, Kenya

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**ABSTRACT**

Flexibility is seen as a means to improve a firm's competitiveness, by lowering labour costs per unit produced. There are least two ways to create flexibility. One way is numerical flexibility, that is, the ability to change the amount of labour quickly in response to changes in the market. The main objective of the study was to establish the influence of numerical flexibility on employee turnover in SMEs in Kenya. The study focused on 4,560 SMEs in Nairobi and its selected environs namely Ruiru, Athi River and Limuru. Data were obtained through questionnaires with closed and open-ended questions. Multiple regression model and Statistical Package of Social Science (SPSS) was used to analyze the data. The study found that numerical flexibility influences employee turnover in Small and Medium sized Enterprises in Kenya (SMEs) in Kenya. The study recommended that for an efficient and competitive economy, management needs flexible employees able to "switch gears" and respond to new forms of production.

**Key Words:** *numerical flexibility, employee turnover*

**Introduction**

Research on flexible work organizations is relatively well established. At least since the work of Atkinson (1984), much attention has been given to flexibility in work organizations. Flexibility is seen as a means to improve a firm's competitiveness, by lowering labour costs per unit produced. There are least two ways to create flexibility. One way is numerical flexibility, that is, the ability to change the amount of labour quickly in response to changes in the market. A second way is functional flexibility, that is, letting the same employees perform different kind of

tasks or jobs as needed. Numerical flexibility is the ability of the firm to vary the quantity of work employed to match changes in the business needs (Atkinson, 1984). It represents a cost-cutting approach that looks to externalise the employment relationship, and is associated with short-term and precarious employment conditions in the secondary labour market segment, under which workers have little incentive or opportunity to be functionally flexible.

The aim of the study was to establish the influence of numerical flexibility on employee turnover in Small- medium enterprises (SMEs) in Kenya. Previous research on numerical flexibility include Black and Lynch (1996, 2001, 2004) in the USA; Michie and Sheehan (2001) in the UK; Arvanitis (2005) in Switzerland; and Kleinknecht et al., (2006) in The Netherlands. The labour market in most of these countries is subject to much less regulation than in Kenya. Therefore, the study embarked to establish the influence of numerical flexibility on employee turnover and contribute to the body of knowledge regarding numerical flexibility.

### **Small and Medium Enterprises in Kenya**

According to the Global Economic Report (World Economic Forum, 2010) Kenya was ranked 98th Country out of 133 in global competitiveness in 2009-2010. According to World Bank Report an issue of concern for Kenya is low intellectual capital utilization by SME owners among key comparator countries that impact negatively on Gross Domestic Product (WB, 2010).

According to the Economic Survey (RoK, 2012), the SME sector contributed 79.8% of new jobs created in Kenya. Consequently, Kenya's development plans from 1989 to date put special emphasis on the contribution of small and medium size enterprises in the creation of employment in the country (RoK, 1989, 1994, 1997, 2009). Job creation in this sector went up by 5.1 percent in 2011. The increase was 445,900 indicating a higher growth in absolute terms compared to the increase of 437,300 registered in 2010.

### **Literature Review**

Numerical flexibility denotes the ability of management to vary the amount of labor employed. This may be achieved by labor policies relying on hire and fire to adjust the volume of labor to changes in demand. A typical employment such as part-time and fixed – term workers, as well as the externalization of work via subcontracting may enhance numerical flexibility (Rousseau, 1995). Some organizations have become highly numerically flexible whereas other organizations use forms of functional flexibility. According to Atkinson (1984), the ideal organization consists of a core of standard labor contracts surrounded by one or more layers of flexible contracts. The core employees could work not only in a functional flexible work organization, but also in a more rigid work organization. The different layers consist of numerically flexible labor, in which the further away the layers are from the core the more numerically flexible they are.

The amount of labor needed in the production process will fluctuate with the demand for the final product and absenteeism among personnel. The aim of a low-cost HR strategy is to shift some of this organizational risk to the employees by using numerical flexibility. A drop in sales due to seasonal variation leads immediately to a lower input of labor and thus lower labor costs (Lepak et al., 2003). An increase in absenteeism would mean that personnel would be leased cheaply through temp agencies to sustain the level of production. The aim of this strategy is to lower wage costs and thereby the labour costs per unit produced (Kleinknecht et al., 2006).

Not every organization can use numerical flexibility. The choice will depend on the technology used in the primary process and the skills necessary to operate the machines. Using the terminology of Williamson (1985), numerical flexibility can only or best be used in a spot market, that is, in a situation where individual productivity can easily be measured and where skills are low or not very specific to the firm. In these types of organizations, the time to acquire the necessary skills is short and management can easily spot if a worker meets the minimum production standards and can easily adjust the workers and the amount of workers to the situation at hand. In other organizations, where either the skill level is higher, or individual productivity is more difficult to measure, it is much more difficult to use numerical flexibility.

## **Research Methodology**

### **The design and sample characteristics**

The study adopted a descriptive research design and used questionnaires to obtain data. The sample for the study consisted of the 456 SMEs in the various categories namely manufacturing, trade and service. A total of 456 SMEs were surveyed to ascertain the influence of workplace flexibility practices on employee turnover. This resulted into 86.0% responses rate.

The study established that majority of the SMEs about 203 (15.8 per cent) that were studied had 41 and 50 employees, followed by 98 (25.0%) in the 31-40 ranges. For comparative purposes, the two categories of between 11-50 and 51-100 were categorized as Small and Medium Enterprises respectively. The results indicated that 372 (94.9%) of the firms studied were by definition Small enterprises, while 20 (5.1%) were Medium-Enterprises. In the survey, the respondents were asked to state the age category they were in. the study established that majority of the owners, directors and managers 224 (57.1%) were between 36-45 years of age, while 168 (42.9%) were between 25 -35 years old. This result illustrates that SME owners are generally active between the ages of 25- 45.

### **Reliability analysis results**

Cronbach alpha was calculated using SPSS. The value of the alpha coefficient was 0.7441. According to Cooper and Schindler (2003) indicated 0.7 to be an applicable reliability

coefficient. Since the alpha coefficients was greater than 0.7, a conclusion was drawn that the instruments had an acceptance reliability coefficient and was appropriate for the study.

### Research Findings

The study sought to measure the effect size of the constructs of workplace flexibility practices on employee turnover. The eta-squared was used within the context of ANOVA to describe the degree of relationship between a predictor or set of predictors and the dependent variable (Block & Aguinis, 2004). The study used Cohen (1988) guidelines for interpreting the eta-squared value: where equal to or larger than 0.010 denotes a small effect size, equal to or larger than 0.059 denotes a medium effect size, and equal to or larger than 0.138 denotes a large effect size.

According to the findings in table 4.1, it is clear that Non existence of contractual terms of employment arrangements in the company (eta squared = 0.087), Non existence of sub-contractual arrangements with external agents (eta squared = 0.105), were within the range 0.06 and 0.14 benchmark (Cohen, 1992), so they all have large effect size on employee turnover in SMEs.

**Table 1: Descriptive Analysis of functional Flexibility Practices Constructs Effect on Employee Turnover in SMEs**

	Eta	Eta Squared
Non existence of contractual terms of employment arrangements in the company	0.295	0.087
Non existence of sub-contractual arrangements with external agents	0.323	0.105

The study sought to test the hypothesis that numerical flexibility has no significant influence on employee turnover in SMEs in Kenya. To test this hypothesis which had the null hypothesis that numerical flexibility has no significant influence on employee turnover in SMEs in Kenya, the study sought to establish whether employee turnover has a linear dependence on the independent variables (numerical flexibility). The study established a correlation value of 0.354. This depicts a very good linear dependence between dependence on the independent variables. An R-square value of 0.125 was established and adjusted to 0.118. The coefficient of determination depicts that numerical flexibility brings about 12.5% variations in employee turnover. The coefficient of determination ( $R^2$ ), further, shows a strong relationship as the value of  $R^2$  is greater than 0.1 ( $R^2 < 0.1$ ). Durbin Watson value of 2.669 was established illustrating lack of autocorrelation in the model residuals.

**Table 2: Relationship between numerical flexibility and Employee Turnover**

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson	Sig
.354 <sup>a</sup>	.125	.118	.29884	2.669	.024

a - Predictors: (Constant), Numerical Flexibility

### Analysis of Variance (ANOVA) for numerical flexibility and Employee Turnover

From the ANOVA statistics in Table 2, indicates the linear regression F-test results and with F= 7.232, and 391 degrees of freedom, and the critical values for F-test (1, 391, at 0.05 alpha is 3.84) is less than the computed F-value, then we reject the null hypothesis and conclude that there is a linear relationship between the variable functional flexibility (FF) and employee turnover in SMEs.

**Table 3: Analysis of Variance (ANOVA)<sup>b</sup>**

	Sum of Squares	df	Mean Square	F	Sig.
Regression	115.001	1	115.001	7.232	.0023 <sup>a</sup>
Residual	461.274	390	1.183		
Total	576.276	391			

a - Predictors: (Constant), Numerical Flexibility (FF)

b - Dependent Variable: Employee Turnover

### Coefficient of Regression between Numerical Flexibility (FF) and Employee Turnover

The study conducted a regression analysis so as to establish the influence of numerical flexibility on employee turnover.

**Table 4: Coefficients**

	Un-standardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
(Constant)	1.275	.041		31.097	.000a
Numerical Flexibility	.098	.064	.201	1.531	.012

Dependent Variable: Employee Turnover

The study conducted a regression analysis so as to establish the influence of numerical flexibility on employee turnover. The regression equation ( $Y = \beta_0 + \beta_1 X_1 + \varepsilon$ ) was:

$$Y = 1.275 + 0.098X_1 + 0$$

Whereby: Y = Employee Turnover and  $X_1$  = Numerical Flexibility

The coefficient of the constant term is 1.275. The sign borne by the regression coefficient of constant is positive implying at zero performance of the independent variable, the employee turnover increases. It is estimated from the result that 1 percent change in numerical flexibility on the average, will lead to 0.098 variations in employee turnover.

### Discussion

The study revealed that numerical flexibility influences employee turnover in Small and Medium sized Enterprises in Kenya (SMEs) in Kenya. Eleven decimal eight percent (11.8%) of the corresponding variations in employee turnover in SMEs can be explained by a unit change in numerical flexibility. According to Hom, Caranikas-Walker, Prussia and Griffeth (2012) numerical flexibility facilitates high turnover rates. Hom *et al*, (2012) argues that employees on temporary or otherwise precarious contracts will conceivably display lower levels of commitment to the work organisation than those enjoying job security particularly where there is little prospect of increased permanent employment in the organisation. The study also confirmed the existence of a relationship between numerical flexibility and employee turnover at 5% significance level. The null hypothesis was rejected because the calculated t-value, at 0.05 = 1.411) was found to be smaller than the critical t, = 1.645 at 0.05, df, 391) and therefore confirmed a relationship between financial flexibility and employee turnover.

### Conclusions and Recommendations

The findings also indicated that numerical flexibility influence employee turnover. This implies that organizations that practice numerical flexibility have high turnover rates since this practice leads to lack of attachment among employees who subsequently feel denied access to company share ownership schemes, performance bonuses and other benefits, which are specifically designed to build up employees' commitment and identification with the organisation hence forcing them to leave their employment in search of a better job. Firms should therefore offer benefits to employees to encourage their commitment with the organization. The study concludes that employers with flexible workplaces are able to leverage flexibility to attract employees, improve employee engagement and satisfaction, and boost retention, and see workplace flexibility as a way to create competitive advantage. These employers have higher productivity and lower absenteeism.

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