



# Asian Journal of Scientific Research

ISSN 1992-1454

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**Relationships Among Silence Climate,  
Employee Silence Behaviour and Work Attitudes:  
The Role of Self-Esteem and Locus of Control\***

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**Abstract:** Employee silence behaviour is a major impediment in organisations' attempt to leverage on the stock of knowledge in its diverse workforce. In order to contribute to the understanding of this concept, Dimitras and Vakola tested a silence behaviour model in which silence climate was found to affect the enactment of employees silence behaviour. The model tested in this study improved on this by accounting for the moderating role of self-esteem and locus of control and also indicating silence behaviour as both antecedent and outcome of work attitudes. Results obtained justify the recommended expansion. Recommendations are to always account for individual differences in silence behaviour model and apply system management in the application of the model.

**Key words:** Silence behaviour, personality traits

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## INTRODUCTION

Employee silence behaviour poses great obstacle in organisations' attempt at leveraging the diverse capabilities of its employees to achieve superior performance. According to Morrison and Milliken (2000) employee silence behaviour is the choice of an employee to withhold his/her opinions and concerns about organizational problems. This occurs when individuals feel that their opinions or suggestions are not valued or will have negative consequences on their career.

This phenomenon exists in many organisations (Moskal, 1991; Ryan and Oestreich, 1991) and results to many negative work attitudes which would affect delivery of superior performance by organisations (Dimitras and Vakola, 2003; Morrison and Milliken, 2000; Dutton and Ashford, 1993; Moskal, 1991; Ryan and Oestreich, 1991; Deming, 1986). Despite the discovery of these negative consequences, it has not been widely studied (Dimitris and Vakola, 2003; Morrison and Milliken, 2000). Therefore, there is the need for more studies aimed at understanding the phenomenon to enhance organizations competitiveness in the rapid changing world of business. A model was developed and tested by Dimitras and Vakola (2003), however, their model did not consider the role individual differences can play in the enactment of silence behaviour and the fact that silence behaviour can be a cause as well as outcome of work attitudes (Ping, 2002).

Though social interaction affects employee reaction to organisational events (Ashforth, 1985; Berger and Luckman, 1967), we postulate that personality disposition would affect how employees react to cues arising from social interaction. There are evidences that suggest that internal locus of control and self-esteem would affect such reactions (Hass, 1989; Kaise, 1970; Biondo and MacDonald, 1971; Hjelle and Chouser, 1970; Brockner, 1979; Brockner *et al.*, 1997). Borrowing from research findings in relationship marketing, job satisfaction and organisational commitment would affect

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*\*Originally Published in Asian Journal of Scientific Research, 2008*

the level of silence behaviour (Ping, 1993, 2002; Hirschman, 1970). The aim of the current study is to test a more robust model of employee silence behaviour that accounts for the role of internal locus of control and self esteem and also contains the reciprocal relationships involving silence behaviour and work attitude.

Silence climate occupies a strategic position in the search of the antecedents of employee silence behaviour (Morrison and Milliken, 2000; Schneider, 1990; Ashforth, 1985; Schneider and Reicher, 1983). Silence climate is defined as widely shared perceptions among employees that speaking up about problems or issues is futile and/or dangerous (Morrison and Milliken, 2000). Organisational leaders' attitude and beliefs on silence play critical role in the enactment and perpetuation of silence climate in the organisation (Dimitris and Vakola, 2003; Morisson and Milliken, 2000; Ashforth, 1985). These attitudes and beliefs of leaders are the product of their fear of negative feedback, their implicit beliefs regarding human nature and nature of management practices. Implicit beliefs about the nature of management that would be relevant for silence climate are the types of communication direction, feedback and level of decision making powers to be made available to employees.

Based on the arguments above, the conceptual model used in this study which is actually a modification of that used by Dimitris and Vakola (2003) is in Fig. 1 and 2. The conceptual model is a modification of Dimitras and Vakola model to reflect the contributions made in the current study. We now address the various aspects of the model and state the hypotheses to be tested.

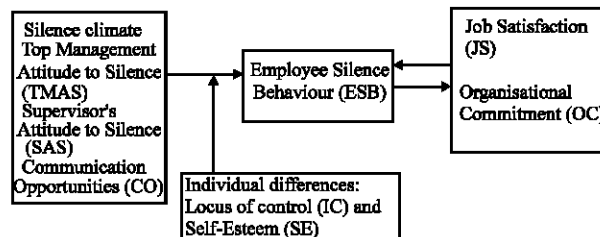


Fig. 1: Conceptual model of antecedents and outcome of silence behaviour

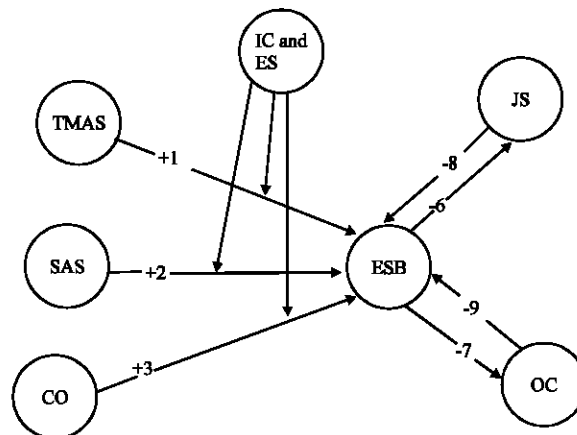


Fig. 2: Model of antecedents and outcome of silence behaviour, TMAS = Top Management Attitude to Silence; SAS = Supervisors Attitude to Silence; CO = Communication Opportunities; IC = Internal locus of Control; SE = Self Esteem; ESB = Employee Silence Behaviour; JS = Job Satisfaction; OC = Organisational Commitment, + 1 = Positive relationship in hypothesis 1

The following hypotheses are tested in this study:

- Hypothesis 1: Top managers' attitude to silence will be positively related to employees silence behaviour
- Hypothesis 2: Supervisors attitude to silence will be positively related to employees silence behaviour
- Hypothesis 3: Communication opportunities will be negatively related to employees silence behaviour.
- Hypothesis 4: Personality disposition of internal locus of control will moderate the relationship between silence climate and silence behaviour such that those who are internals will enact less silence behaviour than externals.
- Hypothesis 5: Personality disposition of self esteem will moderate the relationship between silence climate and silence behaviour such that those who have high self esteem will enact less silence behaviour than those with low self esteem.
- Hypothesis 6: Employee silence behavior will be negatively related to job satisfaction.
- Hypothesis 7: Employee silence behaviour will be negatively related to organizational commitment.
- Hypothesis 8: There will be a negative relationship between job satisfaction and silence behaviour
- Hypothesis 9: There will be a negative relationship between organizational commitment and silence behaviour.

## **MATERIALS AND METHODS**

### **Analytical and Statistical Procedures**

The snowball sampling technique was used in which 100 part time graduate students in a Nigerian university were given 20 questionnaires each to distribute to willing participants in their organizations. The industries covered include financial, oil and service. Six hundred and fifty questionnaires were returned and after removing those with substantial missing data only six hundred usable questionnaires were utilized in this study. This represents 30% return rate. The demographic characteristics of the sample include 432 males (72%), 396 married (66%), average age is in the range 31-40 years (342 below 40 years) and average educational level is first degree.

Prior to testing the hypotheses, principal component factor analysis was carried out to ascertain the factor structure of the study variables. Factors included satisfied two criteria namely they have eigenvalues greater than or equal to one and justified by scree-plot as necessary (Kim and Mueller, 1978). The two criteria justified extraction of 8 factors representing the study variables. To ensure uni-dimensionality of factors items with factor loading less than 0.4 and/or cross loading to another factor more than 0.3 were excluded (Koufteros *et al.*, 2002). The extracted factors accounted for 66% of the variance of the 35 items that measured the study variables. The factor loadings were between 0.71 and 0.84. The square of the correlation of any two factors (Table 1) is less than the variance extracted by each factor thus indicating that the factors discriminate very well (Koufteros *et al.*, 2002; Andrews and Kacmar, 2001). Hypotheses 1 to 3 and 6 to 9 were tested using Structural Equation Modeling techniques. The interaction hypotheses 4 and 5 were tested with hierarchical regression analyses. To reduce multicollinearity, the variables used in the interaction terms were centered (Aiken and West, 1991).

### **Measures**

The questionnaire was in two parts namely part A that captured the personal data and part B that captured the study variables. Job status was measured from 1 to 5 for the various categories, male and female measured as 1 and 2, respectively, age has 5 categories, married participants scored as 1 and

Table 1: Descriptive statistics and correlation for study variables

Variables	N	Mean	SD	Alpha	Var. extracted (%)	TMAS	SAS	CO	OC	JS	IC	SE
TMAS	600	3.43	0.66	0.73	60							
SAS	600	2.58	0.80	0.70	56	0.20*						
CO	600	3.58	0.74	0.70	73	0.17	0.43*					
OC	600	3.50	0.78	0.70	52	0.30*	-0.45*	0.39*				
JS	600	3.04	0.98	0.80	61	0.02	-0.22*	0.11	0.49*			
IC	600	3.46	0.90	0.71	53	0.14	0.04	-0.04	0.01	-0.1		
SE	600	4.04	0.70	0.80	58	-0.10	0.14	0.07	-0.01	-0.04	0.25*	
ESB	600	2.89	0.60	0.80	63	0.22*	0.24*	0.20*	0.15	-0.29*	-0.11	0.02

TMAS = Top Management Attitude to Silence; SAS = Supervisors Attitude to Silence; CO = Communication Opportunity; OC = Organizational Commitment; JS = Job Satisfaction; IC = Internal Locus of Control; SE = Self-Esteem; ESB = Employee Silence Behaviour; \*: Significant Parameters

unmarried as 2 while educational qualification and income contains 6 and 7 categories, respectively. All the scales in part B were measured with 5 point Likert scale. All items were scored so that high value indicates higher value of the construct.

### Top Management Attitude to Silence

This measures the attitude of top management to various voicing of employees on company issues. It contains five items taken from the work of Dimitras and Vikola (2003). Three of the items were reversed and the scores were reversed so as to have higher score represented positive attitude to silence behaviour. An example item is if you disagree about company issues, you can be characterized as trouble maker. The Cronbach alpha obtained by Dimitras and Vikola (2003) is 0.75 while the value for this study is 0.72.

### Supervisors' Attitude to Silence Behaviour

It measures supervisors' attitude to the voice of employees and how they handle suggestions and problems arising from the work environment. It is also taken from the works of Dimitras and Vikola (2003) and contains 5 items whose scores were reversed in such a way that high score represented positive attitude to silence behaviour. An example item is I believe that my supervisor handles conflict well among his/her partners The Cronbach alpha for the Dimitras and Vikola (2003) and the current study is 0.76 and 0.65, respectively.

### Communication Opportunities

This measures the quality of the various communication opportunities offered by the company. It contains 5 items taken from the works of Dimitras and Vikola (2003) and scored such that high score represent greater communication opportunities. An example item is, there is adequate communication between employees and top managers of my company. The Cronbach's alpha for Dimitras and Vikola (2003) and current study are 0.86 and 0.62, respectively.

### Organisational Commitment

It measures individuals' identification with the goals of the organization, their willingness to contribute to their achievement and to maintain relationship with the organization. It contains five items taken from the study of Dimitras and Vakola (2003) with high score representing high commitment. An example item is I believe that my company's values and my values are similar Cronbach's alpha for Dimitras and Vakola (2003) and this study are 0.76 and 0.8, respectively.

### **Employee Silence Behaviour**

This measures the ease with which employees express their concerns to management or higher authority. It contains 7 items taken from the works of Dimitris and Vakola (2003). An example item is, how often do you express your disagreement to you managers concerning company issues? Higher score represented high enactment of silence behaviour. The Cronbach alpha reported by the above study is 0.87 while this study reported 0.80.

### **Job Satisfaction**

This measures overall satisfaction instead of satisfaction with facets of work. It contains 4 items taken from the work of Hackman and Oldham (1980) and adapted by Dimitris and Vakola (2003). An example item is Generally I am satisfied with my job. The Cronbach's alpha obtained by Dimitris and Vakola (2003) is 0.76 while this study obtained 0.80.

### **Self Esteem**

This measures the totality of the individual's thoughts and feelings with reference to himself as an object (Rosenberg, 1986). It contains four items taken from Rosenberg (1989) self-esteem scale and used by Dobson *et al.* (1979) and Fleming and Courtney (1984). The items selected have highest loading in the Self-Esteem factor. An example items is I take positive attitude towards myself. Cronbach's alpha of 0.77 and 0.88 were obtained by the above studies, respectively. The value in this study is 0.80.

### **Internal Locus of Control**

This measures individual's belief that events in their life is determined from their personal action and not externally controlled. It contains 4 items in Rotter (1966) locus of control scale. An example item is good luck is more important than hard work for success. This item is reversed so that high value indicates internal locus of control. The Cronbach alpha obtained in this study is 0.71.

## **RESULTS**

### **Descriptive Statistics and Correlation Analysis**

Table 1 indicates that the means for the study variables vary from 2.58 for supervisor attitude to silence (SAS) to 4.04 for Self Esteem (SE). The study variables have acceptable Cronbach's alpha of 0.7 or above (Cronbach, 1951; Nunnally, 1978). The correlations between study variables in Table 1 show support for hypotheses 1 to 3, 6 and 9. However, the correlation between ESB and OC was not significant thus indication that hypothesis 7 and 9 may not be supported.

We utilized the advice of Kenny and Judd (1984) and estimated the hypothesized model without the moderating variables (locus of control and self esteem) first before testing for interaction. The model was estimated using maximum likelihood method in AMOS software and the fit was based on the values of  $\chi^2/df$ , Goodness of Fit Index (GFI) and Root-Mean Standard-Error of Approximation (RMSEA). Model fit was good as evidenced by values of  $\chi^2/df$ , GFI and RMSEA (Fig. 3). During the estimation process, modification indices indicate that model fit can be improved by adding relationships from job satisfaction to organisational commitment and from communication opportunity to organisational commitment which were not hypothesised. These relationships were significant. Thus job satisfaction has indirect relationship with silence behaviour through its effect on organisational commitment, a fact that was established in past studies (Ahuja *et al.*, 2002; Ping, 2002).

Contrary to the result obtained by Dimitris and Vakola (2003), only two of the silence climate variables (TMAS, SAS) had significant relationship with silence behaviour while that of communication opportunity was not significant (Fig. 3). Consequently, hypotheses 1 and 2 are not rejected while 3 is rejected. The results also indicate that ESB fully mediated the relationships among

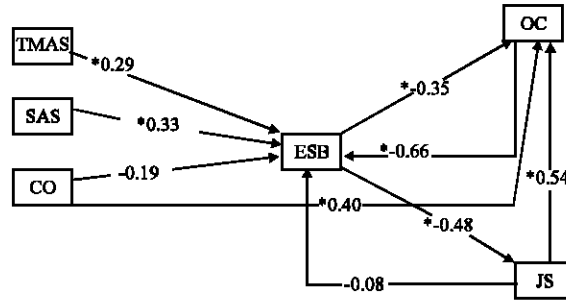


Fig. 3: Estimated Hypothesised Model (Undifferentiated),  $\chi^2 = 47.34$ ,  $df = 16$ ,  $\chi^2/df = 2.962$ , GFI = 0.92, RMSEA=0.05; \* = Significant parameters

Table 2: Hierarchical regression analysis examining IC as moderator of the relationship between Employee Silence Behaviour (ESB) and silence climate variables (SAS, TMAS)

Variables	Step 1: Control variables	Step 2: Independent effects	Step 3: Interaction effects
Job status	0.240	0.240	0.240
Sex	-0.070	-0.020	-0.020
Age	0.050	-0.030	-0.030
Marital status	-0.320*	-0.300*	-0.300*
Education	-0.070	-0.070	-0.080
Salary	-0.090	-0.030	-0.020
TMAS		0.110*	0.120*
SAS		0.220*	0.240*
IC		-0.240*	-0.250*
IC×TMAS			-0.020
IC×SAS			0.070
R <sup>2</sup>	0.09	0.186	0.188
Δ R <sup>2</sup>	0.09*	0.096*	0.002
Sig. F-change	0.04	0.012	0.815

TMAS = Top Management Attitude to Silence; SAS = Supervisors Attitude to Silence; IC = Internal Locus of Control; ESB = Employee Silence Behaviour; \*: Significant Parameters

TMAS and SAS and organizational commitment/job satisfaction as obtained by Dimitras and Vakola (2003). The reciprocal relationships between ESB and OC were significant and in the hypothesized direction. Only the relationship from ESB to JS is significant while that from JS to ESB is not. Hence hypothesis 6, 7 and 9 are not rejected while 8 is rejected.

The moderating effects of internal control (Table 2) and Self-esteem were tested using hierarchical regression analysis. The demographic variables were included in step 1, the study variables TMAS, SAS and either IC or SE were included in step 2 while the interaction terms for IC or SE were put in step 3. Table 3 indicates that only SE moderated the effect of SAS and TMAS on ESB. Thus hypothesis 4 and 5 were accepted.

To interpret the interaction results, two separate equations were developed for one standard deviation above and below the mean of self-esteem (Aiken and West, 1991). These represent the low and high self-esteem participants, respectively. The slope differences in Fig. 4 and 5 are indication that the relationship between ESB and SAS/TMAS are more positive for low than high self-esteem participants. To further confirm the results obtained from the group analyses above, we performed t-test for the equality of means of the low and high IC and SE samples. The mean employee silence behaviour for the low and high SE are 3.44 and 2.93, respectively while those for the low and high IC are 3.21 and 3.19, respectively. The results indicate that the mean for the high and low SE are not equal ( $t = 4.16$ ,  $p < 0.05$ ) while those of the low and high IC are equal ( $t = 0.17$ ,  $p > 0.05$ ).

Table 3: Hierarchical Regression Analysis Examining SE as Moderator of the Relationship between Employee Silence Behaviour (ESB) and Silence Climate Variables (SAS, TMAS)

Variables	Step 1: Control variables	Step 2: Independent effects	Step 3: Interaction effects
Job status	0.24	0.24	0.25
Sex	-0.07	-0.05	-0.06
Age	-0.05	-0.05	0.04
Marital status	-0.33*	-0.32*	-0.32*
Education	-0.07	-0.08	-0.07
Salary	-0.09	-0.02	-0.05
TMAS		0.11*	0.12*
SAS		0.20*	0.24*
SE		0.13	0.09
SE×TMAS			-0.14*
SE×SAS			-0.25*
R <sup>2</sup>	0.09	0.15	0.18
Δ R <sup>2</sup>	0.09*	0.06*	0.03*
Sig. F-change	0.04	0.045	0.03

TMAS = Top Management Attitude to Silence; SAS = Supervisors Attitude to Silence; SE = Self-Esteem; ESB = Employee Silence Behaviour; \*: Significant Parameters



Fig. 4: ESB and SAS relationship for high and low SE

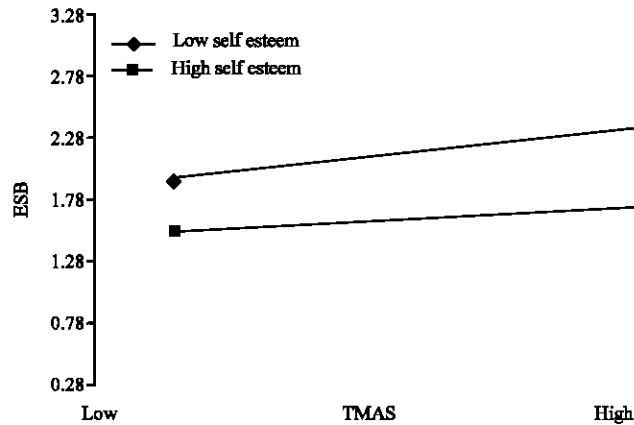


Fig. 5: ESB and TMAS relationship for high and low Self Esteem



## **DISCUSSION**

This study expands the model developed by Dimitras and Vakola (2003) by accounting for the moderating roles of internal locus of control and self esteem and to test the reciprocal relationships between employee silence behaviour and work attitude. The study established that though structural and organizational processes may present fertile breathing grounds for the enactment of silence behaviour, actual enactment could depend on individual differences. It also established that silence behaviour is both an antecedent and outcome of work attitudes and thus its effect on organizational performance is further complicated.

The fact that self-esteem moderated the relationship between silence climate and silence behaviour, (Table 3), is an indication that any model of silence behaviour must consider individual differences. The moderating role of self esteem has been identified by past studies (Brockner *et al.*, 1997). The result obtained in the current study agrees with the postulations of Dimitris and Vakola (2003) that there are different perceptions in relation to expression of voice among individuals in the same company. Though the moderating terms for IC was not significant, the hierarchical regression indicates that IC has direct negative relationship with ESB which is a confirmation that high IC individuals enact low silence behaviour.

The results of the undifferentiated model (Fig. 3) and the regression analyses in Table 2 and 3 indicate that supervisor attitude to silence has largest effect on the enactment of silence behaviour. Thus the assertion by Dimitras and Vakola (2003) that supervisors create micro climates that sieve the effect of top management policies is supported by this study. Wilkinson and Wagner (1993) also showed that supervisors play major role in the work attitudes of their subordinates. Though Dimitras and Vakola (2003) found out that CO had significant relationship with ESB, this study did not support this. The difference could be the result of using regression analyses which is known to report spurious relationships since measurement error is not accounted for (Byrne, 2001). The method used in this study overcame this error.

The direct relationship between CO and OC can be explained by the social exchange theory (Blau, 1964) and reciprocity principle (Gouldner, 1960). Obligations based on trust will be reciprocated in future since people should help those who have helped them and not injure those who have helped them (Gouldner, 1960). Information has been identified as one of the resources used for social exchange in organisations (Cropanzano and Mitchell, 2005). Information provided by the large communication opportunities is helpful to individuals in performing their tasks, in reviewing the congruency between personal and organisational goals and enhances individual's perception of being an in-group member. Social exchange theory and reciprocity principle would both predict that individuals with these benefits would be obligated to be committed with the organisations providing the benefits hence the positive direct relationship between CO and OC.

Ping (2002) found a positive relationship between OC and voice and Dimitras and Vakola (2003) found a negative relationship between OC and ESB. The results obtained in this study are proofs that these two previous studies can be combined and a reciprocal relationship is possible (Fig. 3). From the result, high ESB results to low OC which in turn increases the enactment of silence behaviour. This circular motion can continue and eventually lead to the individual becoming insensitive to the organizational issues. Based on the study of Kassing (1998) this could lead to latent dissent in which the individual can express his/her concerns to ineffective audience outside the organization thereby leading to negative word of mouth. These chains of reactions may be detrimental to the productivity of the organization. Job satisfaction has indirect relationship with ESB through its relationship with OC. Thus job satisfaction would play major role in the chains of reactions mentioned above (Ping, 2002).

### **Limitations of the Study**

The important results from this study should be interpreted in the context of the limitations of the study. The study was based on cross sectional data and hence causal inferences should be made with care. However, it has been ascertained that reciprocal relationships give indication of causality (Kaplan, 2000). The acquired variables were based on self report and as a result common method variance may not be totally eliminated. The fact that the first factor in the unrotated principal factor analyses extracted only 12% of the variance in the items compared to 54% by the other 7 factors is an indication that common method variance is not a serious problem in this study.

### **Recommendations for Future Study**

Since self-esteem moderated the relationships in the tested model and locus of control did not, future studies should include more personality traits so as to find out if they play moderating roles or not. The outcome variables should be expanded to include work behaviours such as performance and intention to leave. The study limited the antecedents of silence behaviour to management and supervisor attitudes to silence. There may be other organizational context that create silence climate like those used here. Future studies should explore the existence of such variables.

### **Managerial Implications**

This study has shown that the attitudes of top management and supervisors to silence create environment that either encourage or discourage the enactment of silence behaviour by employees. These attitudes, based on the operationalisation of the silence climate variables, are either directly or indirectly enacted by managers. Hence top management and supervisors must be conscious of what they do and also what they failed to do. For example a comment such as consensus is acceptable while dissent is unacceptable creates favourable breathing ground for the enactment of employee silence behaviour. Since individual perception plays major role in the enactment of silence behaviour, managers can benefit if the employees with the right frame of mind are recruited into their organizations. This will reduce the enactment of silence behaviour and mitigate its negative effects on the organization.

Since there is a reciprocal link between silence behaviour and work attitudes, top managers have to be careful on the cues they and middle level managers give out and create environments that enhance work attitudes and at the same time encourage employees to voice any negative issue that would have adverse effect on organizational productivity. They should borrow from the high performance human resources system by implementing delegation of appropriate decisions to low level employees and valuing the diversity in their workforce.

From this study, supervisors are very central in the creation of an environment that would encourage or discourage voicing. In order to ensure that no voice is silenced, top management can create suggestion boxes that are not under the control of supervisors and aimed at allowing individuals express their diverse opinions on organizational issues. Furthermore, middle level managers should be counseled on three wrong beliefs that do not encourage voice in the organization namely: negative feedback is not helpful and is an indication of non-performance, negative feedback come from the devil's advocates and that organisational growth is achieved only through positive feedbacks. The reciprocal relationships involving silence behaviour and work attitudes demand that a system view of managing these variables is the best way to obtain maximum benefit from organisations' workforce. Organisational actions such as (decentralization of decision making and empowerment) that can simultaneously improve work attitudes and reduce silence behaviour will maximize employees' performance.

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