Psychological Safety and Employee Voice in IT Sector: Parallel Mediation Effect of Affective Commitment and Intrinsic Motivation

Jeeva Kuriakose* and Devi Soumyaja†

Abstract

The study is an attempt to explain the relationship of psychological safety on employee voice behaviour by examining the mediating role of affective commitment and intrinsic motivation. A questionnaire was distributed amongst 161 IT professionals through convenience sampling. Mediation Analysis was used to find the effect of the mediators in influencing the relationship between psychological safety and prosocial voice. The result suggested psychological safety is parallelly mediated by both affective commitment and intrinsic motivation, leading to employee prosocial voice. Intrinsic motivation was found to have a greater mediating effect than affective commitment.

Keywords: Psychological Safety, Affective Commitment, Intrinsic Motivation, Prosocial Voice.

1. Introduction

IT is one sector where the employers find the highly dynamic workforce. Managing of intangible assets and aspects like interactions, experiences and human resources, despite the
immense success of the sector, pose a big challenge. An interesting fact about the IT sector is that despite the immense success it showcases there exists a higher level of attrition and employee turnover in the whole industry, according to various research studies. Hence there is a need to understand the drivers of productivity in this industry like factors influencing the performance and the sources of competitive advantage. In today’s world, where technology advances and every human asset is expected to be agile, taking measures to promote an innovative work climate is important. It’s not until an employee is convinced that his suggestions play an integral role in decision making that they become willing to communicate ideas, concerns, and opinions. Encouragement of voice is associated with organisational effectiveness and high-quality decision making (Morrison & Milliken, 2000; Nemeth, 1997), as well as team performance. (Dooley and Fryxell, 1999)

Research evidence shows that encouragement of employee voice is associated with organisational effectiveness, and high-quality decision making (Morrison and Milliken, 2015). The degree to which employees interact upwards with suggestions, ideas and information about problems or issues can have significant consequences on the success and even survival of an organisation. A key indicator of organisational success is a company’s ability to make employees feel heard. Giving employees a share of voice is a critical component of establishing a workforce that’s happy, productive and engaged. Thus, it is important to better understand the mechanism which provides the behaviour of voice within organisations.

The aim of this study is to address specifically the role of psychological safety, affective commitment and intrinsic motivation on their influence on employees’ prosocial voice behaviour. It has been assumed that psychological safety may influence the level of voice behaviour by the mediation of affective commitment and intrinsic motivation. Thus the present study attempt to understand how psychological safety influences affective commitment and intrinsic motivation, which in turn will influence the pro-voice behaviour of employees.
2. Review of literature

2.1 Employee voice

Employee voice can be defined as ‘the ability of employees to influence the actions of the employer ’ (Millward et al., 1992). It is delineated “as representation of the intentional expression of work-related ideas, information, and opinions” (Van Dyne, 2013). Hirschman’s (1970) exit, voice and loyalty (EVL) framework describes voice as “any attempt at all to change, rather than to escape from, an objectionable state of affairs” (Gao et al., 2011).

Empirical and conceptual research in recent times focuses on understanding both individual and contextual factors which can increase employee voice behaviour in organisations. Employees’, in order to improve their work outcome, may generate ideas, solutions and opinions and thus they exhibit their voice behaviour (Van Dyne et al., 2013). However, employees might not feel safe to express their ideas and solutions. Because voicing opinions which proposes a suggestion for organisational reform is a risky behaviour which can bother their leaders who establish certain structures, routines, processes and practices in the organisation (Gao et al., 2011). Ryan and Oestrich, 1998 and Milliken, Morrison, and Hewlin, 2003 points out that many employees do not operate within environments where they are safe to voice their opinions. Despite the above fact, Sax & Torp, 2015 shows that voice significantly contributes to organisational learning and change.

Literature studies have addressed three different approaches which affect employees’ decisions to voluntarily share ideas or opinions intended to promote organisational advancement. The first group targeted the individual differences in demographic characteristics and personality in the correlation of voice (LePine & Van Dyne, 2001). The second group of researchers focused their studies on the organisational context that influence employees’ tendency to speak up their opinions (Milliken et al., 2003; Edmondson, 2003). Thirdly, researchers investigated employee attitudes as the primary stimuli for upward voice (Withey & Cooper, 1989).

Previous studies have introduced many different concepts related to voice both in organisational behaviour and management literature. Detert & Burris, 2007 shows that transformational
leadership is a key element that increases voice behaviour. Evidence proves that perceived organisational support has a significant and positive association with voice (Ashford et al., 2009). When employees are able to freely express their ideas and are given space to share their opinion, they may exhibit voice behaviour more frequently (Allen, 2015) this can be the main reason behind the fact that voice behaviour is closely related with work attitudes.

According to Van Dyne (2013), the concept of employee voice defined as speaking up can be expanded to include three types of voice behaviours: prosocial voice, defensive voice, and acquiescent voice. Prosocial voice is fundamentally a positive form of voice, whereas acquiescent and defensive voice behaviours reflect rather negative forms of voice. Prosocial voice presents work-related ideas and opinions that are constructive and intended to contribute positively to the organisation. Hence, it means that prosocial voice is deliberate, intentional and proactive. The main focus here will be to the benefit of others, such as the organisation (Van Dyne, 2013). Secondly, defensive voice is defined as expressing work-related ideas based on fear with the goal of protecting the self (Van Dyne, 2013). It is self-protective. The main difference between defensive voice and prosocial voice is about motive, where one is others-oriented, and the other is self-oriented, respectively. Thirdly, Van Dyne (2013) defined acquiescent voice as the verbal expression of work-related ideas, information or opinions, based on feelings of resignation. In this research, employee voice is conceptualised as trustful, empowering and making constructive suggestions for doing things better. As prosocial voice has been considered as challenging-promotive voice behaviour (Le Pine & Van Dyne, 2001), we use the prosocial voice behaviour in the research.

2.2 Psychological safety
The formal definition of psychological security was first described by Maslow in his hierarchy of needs as “a kind of feeling of confidence, safety and freedom detachment out fear and anxiety, in particular, it contains the feeling a person meet current and future needs” (Maslow, 1945). It is an employee’s ‘sense of being able to show and employ one’s self without fear of negative consequences
to self-image, status or career’ (Brown and Leigh, 1996). Edmondson (1999) defines psychological safety in work teams as a shared belief held by members of a team that the team is safe for interpersonal risk taking. Baer and Frese (2003), in their study of a climate for psychological safety, illustrated an organisational climate where employees feel safe to raise voice without fear and hesitation.

The concept of psychological safety in individual level is used for this study. Psychological safety, in a work environment, is all about creating environments in which employees feel accepted and respected. They are encouraged to take personal risks because it is likely that they are not going to be punished for making any mistakes. Therefore, it is essential to have a safe work environment for employees to speak up and engage in voice behaviour (Milliken et al. 2003). A psychologically safe workplace may be seen as an environment where employees have interpersonal trust and mutual respect, whereas, in an unsafe environment, it is likely that any mistake you make will be permanently held against you. Employees believe that it is safe to take interpersonal risks in a safe workplace (Hernandez et al., 2015). Non-threatening and encouraging management plays a key role in identifying the presence of psychological safety (Hirak et al., 2012). Therefore, this study is to examine the mechanism and relationship between psychological safety and employee voice.

2.3 Affective commitment

Meyer and Herscovitch (2001) propose that commitment is “a force that binds an individual to a course of action of relevance to one or more targets”. Employees are theorised to experience this force in the form of three bases, or mindsets: affective, normative, and continuance. These reflect emotional ties, perceived obligation, and perceived sunk costs in relation to a target, respectively (Allen and Meyer, 1990). Thus, Meyer et al. (1993) have discussed three different types of commitment, namely affective, continuance, and normative commitment. Affective commitment can be defined as the employee’s positive emotional attachment to the organisation. Meyer and Allen describe it as the ‘desire’ component of organisational commitment. Employees with strong affective
commitment identify themselves with the goals of the organisation and desires to remain part of the organisation. Continuance commitment is the ‘need’ component of organisational commitment. It is concerned with the costs when employees leave the organisation. Thirdly, normative commitment refers to a feeling of obligation to continue working because of the fact that they ought to remain with the organisation (Meyer et al., 1993).

A meta-analysis by Meyer et al. (2002) suggests that affective commitment has favourable correlations with organisation-relevant and employee-relevant outcomes. The psychologically safe environment provides employees with interpersonal relationships and feeling of attachment to the organisation, which in return may cultivate affective commitment. Rathert et al. (2009), in their recent study, have found that psychological safety is significantly and positively related to affective commitment.

When employees’ work in a psychologically safe environment, they will be more confident about speaking up at work without fear, and thus their affective commitment to the organisation may increase, which in turn allows the individual to sustain his voice behaviour (Zhang et al., 2010). As Allen & Meyer, 1993 points out, affective commitment provides employees with an emotional attachment to, identification with, and involvement in the organisation. Due to this fact, they may speak up without any reluctance. Employees may confront situations on whether to speak up or remain silent. Employees who exhibit voice behaviour, support organisational goals and devote effort to develop and express ways to overcome challenges to the achievement of those goals (Fuller et al., 2006). Hirschman (1970) argues that individuals with “special attachment to an organisation known as loyalty” show voice behaviour. Thus affective commitment has an impact on employee voice. There are a number of studies investigating the relationship between affective commitment and voice behaviour (Fuller et al., 2006).

Employees working in a psychologically safe environment (psychological safety) are likely to experience a sense of belonging to the organisation (affective commitment). People high in affective commitment enjoy the affiliation in the organisation and share its values and goals (Allen & Meyer, 1990). Employees experiencing
psychological safety at work might feel free to be themselves and take decisions through affective commitment. Thus, we can conclude that the relationship between psychological safety and voice behaviour may be mediated by affective commitment.

2.4 Intrinsic motivation

Intrinsic motivation refers to doing something because it is inherently interesting or enjoyable rather than for the external outcomes or rewards such as money (Deci & Ryan, 1985). Utman (1997) defines intrinsic motivation as ‘to what extent an employee is excited about a work activity’. The study expects employees working in a psychologically safe environment are intrinsically motivated. Hence psychological safety is likely to promote employees’ willingness to give more attention and do better in their tasks.

In the work context, top management should develop an environment where employees feel that their opinions are valued and where open-minded discussions are acknowledged (Ekaterini, 2010). To develop such a culture, organisations need to motivate employees to engage in decision-making by coming forward with their ideas and taking them into consideration. Organisations should also encourage employees to speak out, challenge the status quo and raise questions without fear of negative consequences (Sax & Torp, 2015). The study assumes that intrinsic motivation has an association with employees’ voice behaviour. As voice behaviour has been defined by Ekrot (2016), as “discretionary communication of ideas, suggestions, concerns, or opinions about work-related issues with the intent to improve organisational or unit functioning” it would be logical to conclude that intrinsic motivation could be one of the primary determinants of voice behaviour. Amabile (1988) points out that intrinsic motivation could result in enthusiasm for the activity. When an employee is intrinsically motivated to do a task, he exhibits more voice behaviour and would be deeply taking part in the activity. Intrinsic motivation might be one of the reasons as to why some people voice more than others.

According to Deci’s (1975) Cognitive Evaluation Theory, there are two key factors of intrinsic motivation: feelings of personal control
and feeling of competence. Only when competence and feeling of control are more, people feel intrinsically motivated (Fischer, 1978:273). For this to occur, intrinsic motivation requests a psychologically safe environment to be in place. A key assumption here is that voice is usually helpful with the central motive to support the organisation. As a result, individual factors have an impact on voice behaviour (Van Dyne et al., 2003; Morrison, 2011).

Voice behaviour could be stimulated when people working in a psychologically safe culture have a feeling of intrinsic motivation by working together. Intrinsic motivation could be a reason for employee voice behaviour as employees might perceive their work atmosphere as non-controlling and free to speak up about the issues in organisations. Thus far, it has been argued that psychological safety makes employees intrinsically motivated, which, in turn, contributes to prosocial voice behaviour.

2.5 Research gap

Empirical and conceptual research in recent times focuses on understanding both individual and contextual factors which can increase employee voice behaviour in organisations. Employees’, in order to improve their work outcomes, may generate ideas, solutions and opinions and thus they exhibit their voice behaviour (Van Dyne et al., 2013). However, employees might not feel safe to express their ideas and solutions. Because voicing opinions which proposes a suggestion for organisational reform is a risky behaviour which can bother their leaders who institute certain structure, routines, processes and practices in the organisation (Gao et al., 2011). It is important to understand the mechanism which increases the employee voice behaviour within organisations. So this study aims to better understand the same. Since IT is a sector which is rapidly growing with innovations, to stay competitive, we have to bring up new ideas and concepts. The employees play a major role in the same. Therefore, this study mainly focuses on understanding the situational and individual factors that affect employee voice behaviour. Researches have already proven that psychological safety influences employee voice behaviour. The present study is an effort to understand the influence of mediators like affective commitment and intrinsic motivation on the
relationship between psychological safety and prosocial voice. Accordingly, the following conceptual framework and hypothesis are proposed.

**H1-** Affective commitment and intrinsic motivation parallelly mediate the relationship between psychological safety and prosocial voice.

![Fig 1.1 Conceptual model of the study](image)

### 3. Methodology

The research was done based only on primary data which was collected through survey questionnaires. The data was collected using a structured questionnaire consisting of two sections. The first section collected the demographic details of the respondent, and the second section of the questionnaire was used to measure psychological safety, prosocial voice, affective commitment and intrinsic motivation of respondents. All the variables were measured through questionnaires with response options ranging from 1 (strongly disagree) to 5 (strongly agree).

The questions in the questionnaire used were adapted from already available tools used for similar studies. Prosocial employee voice was measured by five items adapted from Van Dyne, (2003). A sample item was “I speak up with ideas for new projects that might benefit the organisation”. Psychological safety contained seven items developed by Edmondson (1999). A sample item is ‘Working with members of this team, my unique skills and talents are valued and utilised’. An affective commitment was adapted from Allen and Mayer (1990) and contained six items. A sample item was “I enjoy discussing my organisation with people outside it”. The five item intrinsic motivation scale developed by Tierney et al. (1999)
was used. A sample item was “I enjoy creating new procedures for work tasks”.

The data was completely collected using the online Google form. The sample size consists of 161 IT employees working in the IT sector companies across South India. The samples have been collected from various places like Kochi, Trivandrum, Hyderabad, Bengaluru, etc.

4. Analysis and Results

SPSS Version 2.3 and Hayes Process Macro was used to analyse the data. The sample size of the study is 161. Since already existing scales were taken for data collection, they had pre-established reliability. The Cronbach alpha reliability was estimated for our sample of 161 as well. The reliability estimates, as given in table 4.1 indicates that all the scales have reliability above the accepted value of 0.70.

Table 4.1: Scale reliability of variables

| Scale                | Number of items | Cronbach’s Alpha (calculated) | Cronbach’s Alpha |
|----------------------|-----------------|-------------------------------|------------------|
| Prs Social Voice     | 5               | 0.825                         | 0.89             |
| Psychological Safety | 6               | 0.721                         | 0.76             |
| Affective Commitment | 6               | 0.819                         | 0.92             |
| Intrinsic Motivation | 5               | 0.889                         | 0.89             |

Table 4.2: Descriptive statistics of study variables

| Variable              | Mean   | Std. Deviation | 1     | 2     | 3     | 4     |
|-----------------------|--------|----------------|------|------|------|------|
| Prosocial Voice       | 18.54  | 3.82           | 0.318** | 0.368** | 0.599** |
| Psychological Safety  | 20.77  | 3.81           | 0.211** | 0.243** |      |
| Affective Commitment  | 20.23  | 4.95           |      | 0.326** |      |
| Intrinsic Motivation  | 20.35  | 3.53           |      |      |      |
The descriptive statistics and correlations of the study variables are given in table 4.2. Positive and significant correlations were observed between all the study variables. The highest correlation was observed between prosocial voice and intrinsic motivation (0.599), and the lowest correlation was between psychological safety and affective commitment (0.211).

In the case of two or more mediators in the model, one can speak of multiple mediations (Hayes 2013). If the multiple mediators are causally unrelated, this is called parallel mediation. The present study consists of two mediators, affective commitment and intrinsic motivation. Hence parallel mediation analysis is carried out to test H1. Data is analysed using mediation model which focuses on the estimation of the indirect effect of X on Y through an intermediary mediator variable M causally located between X and Y, where X is the input variable, Y is output and M1, and M2 are the Mediating Variables. Model no.4 has been used for analysis with the help of process macro V3.4 extension in SPSS.

Figure 2 shows the parallel mediation of affective commitment and intrinsic motivation on the relationship between psychological safety and prosocial voice. The direct effect of psychological safety on prosocial voice was significant \[B = 0.1596, \text{SE} = 0.0637, \text{CI} = (0.0339, 0.2854)\]. The indirect effect of psychological safety on prosocial voice via the two mediators affective commitment \[B = 0.0360, \text{SE} = 0.0247, \text{CI} = (0.0015, 0.0969)\] and intrinsic motivation
[B = 0.1226, SE = 0.0483, CI = (0.0374, 0.2264)] was also significant. For effective commitment, both indirect effect (0.0360) and direct effect (0.318) point in the same direction indicating complementary mediation. For intrinsic motivation, both indirect effect (0.1226) and direct effect (0.318) point in the same direction indicating complementary mediation. Thus we could say that increase in psychological safety would lead to an increase in prosocial voice via both affective commitment and intrinsic motivation thereby partially supporting H1.

Together, the relationship between psychological safety and employee voice is mediated by both intrinsic motivation and affective commitment. However, the indirect effect through intrinsic motivation (0.1226) is greater in magnitude than that through affective commitment (0.036).

5. Discussion and conclusion

The main goal of this study was to examine the role of affective commitment and intrinsic motivation as a possible intervening mechanism in mediating the relationship between psychological safety and employee voice. One of the conclusions of the study is that psychological safety affects affective commitment. In psychologically safe work environments employees feel safe to take interpersonal risks; they believe they will not be unfairly punished for making honest mistakes, requesting for help, or seeking additional feedback and information (Edmondson, 1999). Therefore, they can easily commit to the organisation.

Intrinsic motivation is “interest and enjoyment of an activity for its own sake and is associated with active engagement in tasks that people find interesting and fun and that, in turn, promote growth and satisfy higher order needs” (Deci, 1971, p. 105). Such ‘higher order’ needs include the needs for competence and relatedness, which motivate the self to initiate behaviour and aspects that are essential for psychological health and well-being of an individual. As stated in the above literature, the relationship between psychological safety and intrinsic motivation was also found significant in the study. The possible explanation of this result might be that when employees’ higher order needs are satisfied,
they will feel intrinsically motivated. An intrinsically motivated employee will feel more relatedness and competence by working in a safe environment that drives the organisation activities in a meaningful direction and purpose.

In line with the literature (Ekrot et al., 2016; Fuller et al., 2006), commitment played a significant role in explaining the likelihood of employee voice. It means employees who voiced their ideas are more committed to the organisations. So the relationship between affective commitment and employee voice was also found statistically significant.

Another key finding in this study is that intrinsic motivation is significantly associated with prosocial voice. Amabile (1988) notes that intrinsic motivation could result in enthusiasm for an activity. Considering employee prosocial voice behaviour as an activity, when an employee is intrinsically motivated to a task, he exhibits voice behaviour and would be deeply taking part in the activity, which might be considered as a behaviour of voice.

Furthermore, it was also found that effective commitment partially mediates the relationship between psychological safety and prosocial voice. This finding is in line with the literature (Ekrot et al., 2016). As Hirschman (1970) proposed in his voice theory, organisation members’ loyalty, which can be considered as affective commitment, simulates voice and decreases the probability of other consequences such as exit and silence. So, effectively committed employees act in a way to meet the organisational interest and goals (Wiener, 1982), and thus they seem to use a strong relationship to address and voice suggestions for improvement or ideas.

The mediating effect of intrinsic motivation on psychological safety and employee voice was also supported. In the literature, intrinsic motivation was assumed to be an important predictor of organisational behaviour. Intrinsic motivation has a significant role in terms of delivering the effect of psychological safety on employee voice. From a practical view, as this study has been conducted on IT professionals, it guides top management on how to maintain voice behaviour among employees. As voice is a key antecedent for innovation and creativity, the employees can
produce enterprising and innovative output when they are more engaged in speaking up at work.

However, the study is not free from limitations. The generalizability of the study is limited as the data is collected only from a few IT organisations. The study is also subjected to common response bias as the data was collected through a survey method. Future research could conduct the study in manufacturing sectors, and can also examine other indicators of the work context, apart from psychological safety, affective commitment and intrinsic motivation. In addition, voice behaviour may be analysed as a group level to test the differences between individuals and groups.

A psychologically safe work environment will motivate the employees to voice their opinion. So it is necessary for the present era to give importance to psychological safety. Intrinsically motivated employees will voice their suggestions and opinions, which could be beneficial to the organisation. Through psychological safety, we could increase the affective commitment and intrinsic motivation of employees also, which in turn can lead to improved voicing behaviour.

References

Allen, M. L. (2015). Employee voice, equal opportunities and workplace outcomes: An analysis of UK workplaces (Doctoral dissertation, Manchester Metropolitan University).

Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance, and normative commitment to the organisation. Journal of Occupational Psychology, 63, 1–18.

Allen, N. J., & Meyer, J. P. (1993). Organisational commitment: evidence of career stage effects?. Journal of Business Research, 26, 49-61.

Amabile, T.M. (1988). A model of creativity and innovation in organisations. In B. M. Staw & L. L. Cummings (Eds.), Research in organisational behaviour, 10, 123-168.

Ashford, S. J., Sutcliffe, K. M., & Christianson, M. K. (2009). Speaking up and speaking out: The leadership dynamics of voice in organisations. Voice and silence in organisations, 175-202.

Baer, M., & Frese, M. (2003). Innovation is not enough: Climates for initiative and psychological safety, process innovations, and firm performance. Journal of Organizational Behaviour: The International
Kuriakose and Devi Soumyaja  Psychological Safety and Employee Voice

*Journal of Industrial, Occupational and Organisational Psychology and Behaviour*, 24(1), 45-68.

Bloemer, J., Odekerken-Schröder, G., & Kestens, L. (2003). The impact of need for social affiliation and consumer relationship proneness on behavioural intentions: An empirical study in a hairdresser’s context. *Journal of retailing and consumer services*, 10(4), 231-240.

Brown, S. P., & Leigh, T. W. (1996). A new look at psychological climate and its relationship to job involvement, effort, and performance. *Journal of applied psychology*, 81(4), 358.

Carmeli, A., (2007). Social capital, psychological safety and learning behaviours from failure in organisations, *Long Range Planning*, 40, 30-44.

Deci, E. L., Cascio, W. F., & Kruse, J. (1975). Cognitive evaluation theory and some comments on the Calder and Staw critique.

Demming, C. L., Jahn, S., & Boztug, Y. (2017). Conducting Mediation Analysis in Marketing Research. *Marketing ZFP*, 39(3), 76-98.

Detert, J. R., & Burris, E. R. (2007). Leadership behaviour and employee voice: Is the door really open?. *Academy of management journal*, 50(4), 869-884.

Duan, Jinyun, Li, Chenwei, Xu, Yue, & Wu, Chia-Huei (2016). Transformational leadership and employee voice behaviour: a Pygmalion mechanism, *Journal of Organizational Behaviour*.

Edmondson, A., (1999). Psychological safety and learning behaviour in work teams, *Administrative Science Quarterly*, 44(2), 350-383.

Edmondson, A. C. (2003). Speaking up in the operating room: How team leaders promote learning in interdisciplinary action teams. *Journal of management studies*, 40(6), 1419-1452.

Ekaterini, G. (2010). The impact of leadership styles on four variables of executives workforce. *International Journal of Business and Management*, 5(6), 3.

Ekrot, B., Rank, J., & Gemünden, H. G. (2016). Antecedents of project managers’ voice behaviour: The moderating effect of organisation-based self-esteem and affective organisational commitment. *International Journal of Project Management*, 34(6), 1028-1042.

Fuller, J. B., Hester, K., Barnett, T., & Relyea, L. F. C. (2006). Perceived organisational support and perceived external prestige: Predicting organisational attachment for university faculty, staff, and administrators. *The Journal of social psychology*, 146(3), 327-347.

Gao, L., Janssen, O., & Shi, K. (2011). Leader trust and employee voice: The moderating role of empowering leader behaviours. *The Leadership Quarterly*, 22(4), 787-798.
Hernandez, W., Luthanen, A., Ramsel, D., & Osatuke, K. (2015). The mediating relationship of self-awareness on supervisor burnout and workgroup Civility & Psychological Safety: A multilevel path analysis. *Burnout Research, 2*(1), 36-49.

Hirak, R., Peng, A. C., Carmeli, A., & Schaubroeck, J. M. (2012). Linking leader inclusiveness to work unit performance: The importance of psychological safety and learning from failures. *The Leadership Quarterly, 23*(1), 107-117.

Hirschman, A. O. (1970). Exit, voice, and loyalty: Responses to decline in firms, organisations, and states (Vol. 25). Harvard university press.

LePine, J. A., & Van Dyne, L. (2001). Voice and cooperative behaviour as contrasting forms of contextual performance: evidence of differential relationships with big five personality characteristics and cognitive ability. *Journal of applied psychology, 86*(2), 326.

Maslow, A. H. (1945). Experimentalising the clinical method. *Journal of Clinical Psychology.*

Meyer, J. P., & Herscovitch, L. (2001). Commitment in the workplace: Toward a general model. *Human resource management review, 11*(3), 299-326.

Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organisations and occupations: Extension and test of a three-component conceptualisation. *Journal of applied psychology, 78*(4), 538.

Meyer, J. P., Stanley, D. J., Herscovitch, L., Topolnytsky, L., (2002). Affective, continuance, and normative commitment to the organisation: a meta-analysis of antecedents, correlates, and consequences, *Journal of Vocational Behaviour, 61*, 20-52.

Milliken, F. J., Morrison, E. W., & Hewlin, P. F. (2003). An exploratory study of employee silence: Issues that employees don’t communicate upward and why. *Journal of management studies, 40*(6), 1453-1476.

Millward, N. (1992). *Workplace industrial relations in transition: the ED/ESRC/PSI/ACAS surveys.* Dartmouth Pub Co.

Morrison, E.W., (2011). Employee voice behaviour: integration and directions for future research. *The Academy of Management Annals, 5*(1), 373-412.

Morrison, E. W., & Milliken, F. J. (2003). Speaking up, remaining silent: The dynamics of voice and silence in organisations. *Journal of Management Studies, 40*(6), 1353-1358.

Morrison, E. W., Phelps, C. C., (1999). Taking charge at work: Extra role efforts to initiate workplace change, *Academy of management Journal, 42*(4),403-419.

Near, J. P., & Miceli, M. P. (1985). Organisational dissidence: The case of whistle-blowing. *Journal of business ethics, 4*(1), 1-16.
Premeaux, S. F., & Bedeian, A. G. (2003). Breaking the silence: The moderating effects of self-monitoring in predicting speaking up in the workplace. *Journal of management studies, 40*(6), 1537-1562.

Rathert, C., Ishqaidef, G., & May, D. R. (2009). Improving work environments in health care: Test of a theoretical framework. *Health care management review, 34*(4), 334-343.

Ryan, R. M., Deci, E. L., (2000). Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions, *Contemporary Educational Psychology, 25*, 54-67.

Sax, J., & Torp, S. S. (2015). Speak up! Enhancing risk performance with enterprise risk management, leadership style and employee voice, *Management Decision, 53*(7), 1452-1468.

Tierney, P., Farmer, S. M., & Graen, G. B. (1999). An examination of leadership and employee creativity: The relevance of traits and relationships, *Personnel Psychology, 52*(3), 591-620.

Utman, C. H. (1997). Performance effects of motivational state: A meta-analysis. *Personality and Social Psychology Review, 1*(2), 170-182.

VanDyne, L., Ang, S., & Botero, I. C. (2003). Conceptualising employee silence and employee voice as multidimensional constructs, *Journal of Management Studies, 40*(6), 1359-1392.

Walumbwa, F. O., & Schaubroeck, J. (2009). Leader personality traits and employee voice behaviour: Mediating roles of ethical leadership and work group psychological safety, *Journal of Applied Psychology, 94*, 1275-1286.

Wiener, Y. (1982). Commitment in organisations: A normative view. *Academy of management review, 7*(3), 418-428.

Withey, M. J., & Cooper, W. H. (1989). Predicting exit, voice, loyalty, and neglect. *Administrative science quarterly, 521*-539.

Zhang, Y., Fang, Y., Wei, K. K., & Chen, H. (2010). Exploring the role of psychological safety in promoting the intention to continue sharing knowledge in virtual communities, *International Journal of Information Management, 30*, 425-436.

Zhao, X., Lynch, J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and Truths about Mediation Analysis. *Journal of Consumer Research, 37*(2), 197-206.