

VERTICAL PAY DISPERSION AND WORKFORCE AGILITY IN INDIGENOUS OIL AND GAS FIRMS IN PORT HARCOURT, RIVERS STATE

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ABSTRACT

The goal of this study was to ascertain the relationship between vertical pay dispersion and workforce agility in indigenous oil and gas firms in Port Harcourt, Rivers state. Adaptability, cooperation and responsiveness were used as the measures of workforce agility. Based on the conceptual framework, three research questions were formulated as well as three hypotheses. Expectancy theory was adopted as the theoretical foundation for the study. The researcher employed cross-sectional survey research design. A total of three hundred and five (305) was drawn from a population of one thousand, two hundred and seventy-five (1,275) across the seventeen (17) indigenous oil and gas firms in Port Harcourt, Rivers State. The questionnaire went through content validity test, while cronbach alpha was used to test the reliability of the research instrument. Descriptive statistical tools were used in describing the demographic and univariate, while the inferential statistical tools were used in analyzing the bivariate. The result of the findings revealed that vertical pay dispersion relates positively with adaptability, cooperation and responsiveness respectively. Following this outcome, the study concludes that vertical pay dispersion is a viable and highly applicable approach towards sustaining and enhancing the adaptability, cooperation and responsiveness of the organization. thus, the researcher recommends that indigenous oil and gas firms should on a consistent basis, assess their disposition and applicability of vertical pay dispersion within their various context, this would determine their effectiveness.

Keywords: Vertical pay dispersion, workforce agility, cooperation and responsiveness

INTRODUCTION

Economic troughs, supplier upheavals, global competition, changing customer(s) wishes, as well as political instability have replaced business stability with permanent volatility (Tessarini & Saltorato, 2021). The present-day business environment has stepped up pressure on firms to offer goods as well as services more efficiently and flexibly than ever before (Dyer & Ericksen, 2005 cited in Tessarini & Saltorato, 2021). Firms are transforming their operational patterns in every area, ranging from leadership approaches to financial processes. In order for firms to become nimble as well as surmount and even survive in this current high competitive and changing business environment, they are adopting agility as an enterprise-wide strategy (Gartside et al., 2014 in Tessarini & Saltorato, 2021).

The knowledges to deal with unpredictable, dynamic as well as constantly changing business environment has been a prevailing theme for a few decades. Among plans of how to deal with these challenges, the concept of workforce agility is the most predominant and popular (Sherehiy & Karwowski, 2014). According to Jackson and Johansson (2003) agility is not a goal in itself but the necessary means to maintain the competitiveness in the market characterized by uncertainty and change. Agility is generally described as the ability to gain effective advantage, exploit opportunities and withstand threats derived from frequent and sometimes unexpected changes, responding quickly by reconfiguring resources, strategies, and people in an efficient and effective manner (Holbeche, 2018; Walter, 2020). As Jackson and Johansson (2003) observed, agility is not a goal in itself but the necessary means to maintain the competitiveness in the market characterized by uncertainty and change. Workforce agility has been discussed as critical to creating an agile organization (Sherehiy et al. 2014).

According to Gartside et al. (2014) instead of depending on a few decision makers at the top, agile workforce rely on their entire talent pool and deploy them fluidly as circumstances demand. An agile competitive environment is where the people skills, knowledge and experience are the main differentiators

between the companies (Goldman et al., 1995). According to Hopp and Van (2004) an agile workforce can support strategic objectives of cost, time, quality and variety. An agile workforce is seen to increase productivity, profits and market shares, to grow a business in a competitive market of continuous and unanticipated change and to enhance organizations' prospects for survival in an increasingly volatile and global business environment. A study of workforce agility by Beatty (2005) concluded that, considering agile workforce management in an organization enables it to acquire their targets through innovation, increases the strategic capacities, and curbs the workforce-related structural costs on both a fixed and contingent basis (Beatty, 2005). Workforce agility is a critical strategy to unpredictable, dynamic as well as constantly changing business environment.

According to Shaw (2014) vertical dispersion is the spread of pay across organizational echelons. This means that vertical pay dispersion is high when there is a large pay gap between job levels within the organization. Downes and Choi (2014) define it as a “between-job construct that generally relates to the “slope” of the pay structure within a firm”, meaning that steeper pay structures exhibit a higher vertical dispersion than flatter (more compressed) structures. According to Siegel and Hambrick (2005) vertical pay dispersion is defined as the difference in pay across different hierarchical levels within the organization. According to them, there are two factors that may contribute to vertical pay dispersion: the creation of extreme tournaments within the organization and a hierarchy with great distances between social, informational and status levels. The purpose of this study was to examine the relationship between vertical pay dispersion and workforce agility of indigenous oil and gas firms in Port Harcourt, Rivers State.

Conceptual Framework

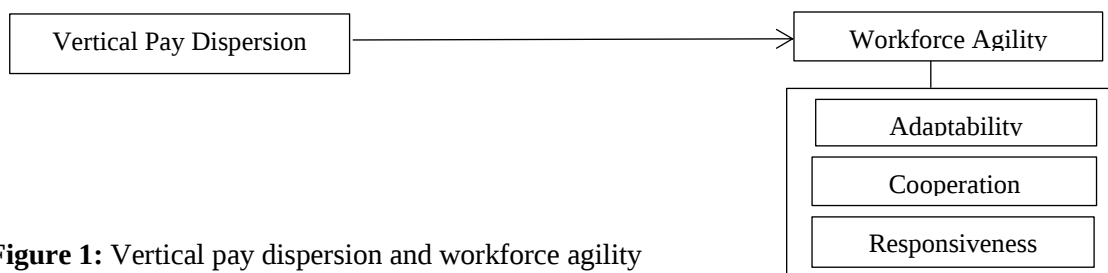


Figure 1: Vertical pay dispersion and workforce agility

Source: Desk Research (2023)

The study was guided by the following research questions:

- i. What is the relationship between vertical pay dispersion and adaptability in indigenous oil and gas firms in Port Harcourt, Rivers State?
- ii. What is the relationship between vertical pay dispersion and cooperation in indigenous oil and gas firms in Port Harcourt, Rivers State?
- iii. What is the relationship between vertical pay dispersion and responsiveness in indigenous oil and gas firms in Port Harcourt, Rivers State?

LITERATURE REVIEW

Theoretical Foundation

Expectancy Theory

Expectancy theory (Vroom, 1964), by contrast, suggests that pay differences are motivating if employees (a) value outcomes, such as a high level of pay (valence), (b) believe that increased efforts lead to increased performance (expectancy), and (c) perceive that a higher level of performance is tied to a higher level of outcomes such as pay (instrumentality). Although early conceptualizations of expectancy argued that the three motivating factors are multiplicative (Vroom, 1964), meta-analytic evidence suggests that all three of the motivating factors primarily impact motivation through main effects (Van Eerde & Thierry, 1996).

Expectancy theory Expectancy theory (Vroom, 1964) suggests that if employees wish for an outcome such as higher pay, believe that they can achieve the necessary performance levels, and believe that performance will lead to the desired outcome, they will be motivated to perform. (Gupta et al., 2012). According to this theory, pay dispersion will be motivating if (1) employees value outcomes such as a higher pay level (valence), (2) believe that a higher level of effort will lead to a higher level of performance (expectancy or $E \rightarrow P$), and (3) perceive that a higher level of performance will lead to a higher level of outcomes (instrumentality or $P \rightarrow O$) (Vroom, 1964; Downes & Choi, 2014). Thus, larger rewards such as pay will

lead to a greater motivation through increased valence, and a closer relationship between performance and pay will lead to a greater motivation through increased instrumentality (Downes & Choi, 2014).

Conceptual Review

Vertical Pay Dispersion

According to Shaw (2014) vertical dispersion is the spread of pay across organizational echelons. This means that vertical pay dispersion is high when there is a large pay gap between job levels within the organization. Downes and Choi (2014) define it as a “between-job construct that generally relates to the “slope” of the pay structure within a firm”, meaning that steeper pay structures exhibit a higher vertical dispersion than flatter (more compressed) structures. According to Siegel and Hambrick (2005) vertical pay dispersion is defined as the difference in pay across different hierarchical levels within the organization. According to them, there are two factors that may contribute to vertical pay dispersion: the creation of extreme tournaments within the organization and a hierarchy with great distances between social, informational and status levels.

Vertical pay dispersion arises from variations in skill and/or responsibility, or due to differences in labour markets for these jobs (Gupta, Conroy & Delery 2012; Brown, Sturman & Simmering 2003). Bloom and Michel (2002) suggest that some reasonable amount of vertical pay dispersion is necessary to attract, retain and motivate high-performing employees. Even so, vertical pay dispersion can also come at the cost of unfairness perceived by lower-level employees (Pfeffer & Langton 1993; Bloom 1999). According to equity theory (Adams 1965; Walster, Berscheid & Walster 1973; Homans 1974), individuals judge fairness by comparing the inputs they contribute and the outcomes they obtain. Nevertheless, employees’ fairness perceptions are affected largely by outcome (instead of input) differences (Cowherd & Levine 1992).

Workforce Agility

The agility means the ability to quickly respond and adapt to volatile market environments. According to Karwowski (2014) agility includes different competitive criteria like speed, flexibility, innovation,

adaptability, proactivity, quality, productivity, profitability, customization, and knowledge, which help to focus on products and services driven by customer instead of those driven by the company. Yusuf et al. (1999) proposed that agility is the successful application of competitive bases such as speed, flexibility, innovation, and quality by the means of the integration of reconfigurable resources and best practices of knowledge-rich environment to provide customer-driven products and services in a fast changing environment. An equally important attribute of agility is the effective response to change and uncertainty (Goldman et al., 1995; Kidd, 1994; Sharifi & Zhang, 2001).

According to Gunasekaran (1999) workforce agility characteristics as follows: IT-skilled workers, knowledge in team working, negotiation, advanced manufacturing strategies, technologies, empowered employees, multifunctional workforce, multi-lingual workforce, and self-directed teams. According to Breu et al. (2002) indicators of workforce agility are; responsiveness to external change, benchmark for skill assessment, speed of skill development, speed of adaptation to new work environments, speed of information access, speed of IT change, use of mobile technologies, workplace independence, mobile information access, collaborative technologies, virtual team, knowledge sharing, and employee empowerment. Dyer and Shafer (2003) stated that achievement of workforce agility requires three main types of behavior, such as; proactive, adaptive and generative. Proactive behavior consists of two aspects: initiate and improvise. Proactive initiative means active search for opportunities to contribute to organizational success and take the lead in pursuing those opportunities that appear promising. Proactive improvisation requires devising and implementing new and creative approaches to pursuing opportunities and dealing with threats. Adaptive behaviors require assumption of multiple roles to perform in different capacities across levels, and projects often simultaneously move from one role to another very quickly. The employees have to simultaneously learn in multiple competencies areas and educate by actively sharing of information and knowledge.

Adaptability

Adaptability is the degree to which an employee or an organization has the ability to alter behavior, structures; and systems in order to survive in the wake of the environmental change (Denison, 1990). Adaptability entails translating the demands of business environment into action. Organizations as open systems exist in environment that is complex and uncertain. To survive and make profit, organizations need to adapt continuously to the different levels of environmental uncertainty. Environmental uncertainty represents an important contingency for organization structure and internal behavior (Daft, 1998). Organizations need to have the right fit between internal structure and the external environment. In a world where each day brings new global competitors, technical breakthrough, and shifting markets, many firms have seen their competitive advantages ripped apart. The new level of environmental uncertainty, called hyper competition, has created a condition of constant disequilibrium and change, not only in fast-moving, high-tech industries, but also across the board (Aveni in Daft, 1998).

Responsiveness

Responsiveness refers to the process of producing general enlightenment or understanding from market information, and it can be considered as the managerial assumptions and mental models which shapes managers' orientation towards priorities, the manner in which they formulate problems, the range of solutions they convey, and the criteria of choice they apply (Moorman 1995) responsiveness can be likewise described as a firm's propensity to act based on market information generated (Hult et al. 2005). Taking the view of market information process, Kohli and Jaworski (1990) correspond responsiveness to information utilization within the organization, which is composed of two sets of activities – response design (the use of market intelligence to develop plans) and response implementation (the use of market intelligence to execute such plans) (Kohli & Jaworski 1990). Kohli and Jaworski (1990) also identified several concrete forms of responsiveness including, selecting target markets, designing and offering products and services that cater to customers' current and anticipated needs, and producing, distributing, and promoting the products in a way that elicits favorable end-customer response (Kohli & Jaworski 1990).

Cooperation

Cooperation describes a process of openness towards working with significant others. In the most generic use of the term ‘cooperation’, every employment relationship involves cooperation to the extent that the parties are participating in that relationship (Naharuddin & Sadegi, 2013). But one finds this unhelpful because it does not recognize the sense of working together harmoniously that many consider central to the meaning of cooperation. Moreover, the concept of cooperation is (perhaps surprisingly) complex, leading to many, often competing, perspectives on what cooperation means and how it can or should be advanced within the employment relationship. In the context of this paper, cooperation is adapted to imply the willingness of the worker in terms of engaging in mutually benefiting and progressive behaviour or actions with co-worker and with the organization’s management (Naharuddin & Sadegi, 2013).

Cooperation means workers participation in decision making; participatory or cooperative practices in an enterprise to achieve organizational goals and meet employees need (Heron, Macdonald & Vandenabeele, 1997). The authors argue that the cooperation can take various forms, such as information sharing, direct or indirect consultation, and financial participation. Collective bargaining is also a form and a vehicle for workplace cooperation. Developing more cooperative working relations in the enterprise can contribute to increased efficiency, productivity and competitiveness of the enterprise, better enterprise industrial relations, an improved working environment, increased job satisfaction and effectiveness. More effective decision-making within the enterprise and more equitable sharing of enterprise profits by workers that will motivate employers and employees, thereby reducing boredom and turnover intentions (Heron, Macdonald & Vandenabeele, 1997).

Employees’ cooperation in the organization is seen through information sharing. Information sharing is the regular and systematic provision, by management to workers, of accurate and comprehensive information on a range of personnel, financial, production, developmental and organizational matters. Information sharing which is a form of cooperation and a pro-social behaviour exhibited by employee, serves as a

prerequisite for other forms of workplace cooperation. Actually, one message always rings true; that a lack of cooperation between employees and between employees and managers negatively impact employee productivity.

Empirical Review

Vertical Pay Dispersion and Workforce Agility

According to Shaw (2014) vertical dispersion is the spread of pay across organizational echelons. This means that vertical pay dispersion is high when there is a large pay gap between job levels within the organization. Downes and Choi (2014) express it as a “between-job construct that generally relates to the “slope” of the pay structure within a firm”, meaning that steeper pay structures exhibit a higher vertical dispersion than flatter (more compressed) structures. According to Siegel and Hambrick (2005) vertical pay dispersion is seen as the difference in pay across different hierarchical levels within the organization. However, there is no clear study that relate vertical pay dispersion to workforce agility. It is on this note, that this study postulated the following hypotheses;

H₀₁: There is no significant relationship between vertical pay dispersion and adaptability in indigenous oil and gas firms in Port Harcourt, Rivers State.

H₀₂: There is no significant association between vertical pay dispersion and responsiveness in indigenous oil and gas firms in Port Harcourt, Rivers State.

H₀₃: There is no significant relationship between vertical pay dispersion and cooperation in indigenous oil and gas firms in Port Harcourt, Rivers State.

METHODOLOGY

A cross sectional survey research design was adopted. A total of three hundred and five (305) was drawn from a population of one thousand, two hundred and seventy-five (1,275) across the seventeen (17) indigenous oil and gas firm in Port Harcourt, Rivers State. The researcher adopted primary method of data collection. The questionnaire went through content validity test, while Cronbach Alpha Coefficient was

used to test the reliability of the research instrument. Pearson's Product Moment Correlation Coefficient Inferential statistical tool was used in analyzing the bivariate relationships, at 95% confidence level which was accepted as criteria for probability for either accepting the null hypotheses at ($p > 0.01$) or rejecting the null hypotheses formulated at ($p < 0.01$).

DATA ANALYSIS AND RESULTS

Test of Research Hypothesis one

H₀₁: There is no significant relationship between vertical pay dispersion and adaptability of Indigenous Oil and Gas Firms in Port Harcourt, Rivers State.

Table 1: Vertical Pay Dispersion and Adaptability

		Vertical Pay Dispersion	Adaptability
Vertical Pay Dispersion	Pearson Correlation	1	.857**
	Sig. (2-tailed)		.000
	N	298	298
Adaptability	Pearson Correlation	.857**	1
	Sig. (2-tailed)	.000	
	N	298	298

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Survey data, 2023

As clearly indicated in the correlation results between vertical pay dispersion and adaptability in table 1, there is a positive as well as significant relationship between the variables. The correlation statistic ($r = .0857$, $p < 0.001$) indicate that vertical pay dispersion can elucidate 85.7% of variation in adaptability. This is an indication of a positive relationship between the variables. In term of intensity of the relationship, the result show that vertical pay dispersion with ($r = 0.857$) is highly related to adaptability. This is very instructive to firm's management that, a unit increase in vertical pay dispersion has potential to improve adaptability even without considering the effects of other exogenous variables. With reference to the yardstick specified by Irving (2005) for accepting either the null or alternative hypothesis, we therefore

reject the null hypothesis as the computed output is greater than 0.20, that is, $r = .857$ is greater than 0.20. Hence the alternative hypothesis is accepted.

Test of Research Hypothesis Two

H₀₂: There is no significant relationship between vertical pay dispersion and cooperation of Indigenous Oil and Gas Firms in Port Harcourt, Rivers State.

Table 2: Vertical Pay Dispersion and Cooperation

		Vertical Pay Dispersion	Cooperation
Vertical Pay Dispersion	Pearson Correlation	1	.672**
	Sig. (2-tailed)		.000
	N	298	298
Cooperation	Pearson Correlation	.672**	1
	Sig. (2-tailed)	.000	
	N	298	298

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Survey data, 2023

As clearly indicated in the correlation results between vertical pay dispersion and cooperation in table 2, there is a positive as well as significant association between the variables. The correlation statistic ($r = .0672$, $p < 0.001$) indicate that vertical pay dispersion can elucidate 67.2% of variation in cooperation. This is a sign of a positive association between the variables. In term of intensity of the association, the outcome shows that vertical pay dispersion with ($r = 0.672$) is highly related to cooperation. This is very instructive to firm's management that, a unit increase in vertical pay dispersion has potential to improve responsiveness even without considering the effects of other exogenous variables.

With reference to the yardstick specified by Irving (2005) for accepting either the null or alternative hypothesis, we therefore reject the null hypothesis as the computed output is greater than 0.20, that is, $r = .672$ is greater than 0.20. Hence the alternative hypothesis is accepted.

Test of Research Hypothesis Three

H₀₃: There is no significant association between horizontal pay dispersion and responsiveness of Indigenous Oil and Gas Firms in Port Harcourt, Rivers State.

Table 3: Horizontal Pay Dispersion and Responsiveness

		Horizontal Pay Dispersion	Responsiveness
Horizontal Pay Dispersion	Pearson Correlation	1	.589**
	Sig. (2-tailed)		.000
	N	298	298
Responsiveness	Pearson Correlation	.589**	1
	Sig. (2-tailed)	.000	
	N	298	298

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Survey data, 2023

As indicated in the correlation outcomes between horizontal pay dispersion and responsiveness in table 3, there is a positive as well as significant association between the variables. The correlation statistic ($r = .0589$, $p < 0.001$) signpost that horizontal pay dispersion can elucidate 58.9% of variation in responsiveness. This is a symbol of a positive relationship between the variables. In term of intensity of the association, the outcome show that horizontal pay dispersion with ($r = 0.589$) is highly related to responsiveness. This is very instructive to firm's management that, a unit increase in horizontal pay dispersion has potential to improve responsiveness with the consideration of the effects of other exogenous variables. With reference to the yardstick specified by Irving (2005) for accepting either the null or alternative hypothesis, we therefore reject the null hypothesis as the computed output is greater than 0.20, that is, $r = .589$ is greater than 0.20. Hence the alternative hypothesis is accepted.

DISCUSSION OF FINDINGS

The findings of the test of hypothesis 1_a and 2_a and 3_a indicated that, there is correlation between vertical pay dispersion and the various measures of the criterion variable (adaptability, responsiveness and cooperation). The results show a positive as well as significant relationship between the variables. The correlation statistic ($r = .0.857$ for test 1_a, $r = .0.831$ for test 2_a and $r = .0.672$ for test 3_a $p < 0.001$) signify that vertical pay dispersion can explain 85.7% of variation in adaptability, 83.1% in responsiveness and 67.2% in cooperation. This is a sign of a positive association between the variables. In term of intensity of the relationship, the outcome displays that vertical pay dispersion with ($r = 0.857$, $r = 0.831$ and $r = 0.672$) is highly correlated to adaptability, responsiveness and cooperation. This is very instructive to multinational firms in Nigeria that, a unit increase in vertical pay dispersion has potential to improve adaptability, responsiveness and cooperation even without considering the effects of other exogenous variables.

This finding correspond with those of Bloom and Michel (2002) who stipulated in their study that some reasonable amount of vertical ay dispersion is necessary to attract, retain and motivate high-performing employees. According to the study of Gerhart and Fang (2014) vertically dispersed pay is a viable incentive tool among many firms across multiple sectors and remains an efficacious tool to seek and allocate talent by facilitating sorting among employees. Main et al. (1993) studies vertical pay dispersion between the top management team (TMT) and the CEO 1980 - 1984. They find a positive relation between pay dispersion and firm performance as well as shareholder returns. The study of Becker and Huselid (1992) empirically demonstrate the positive effects of pay dispersion. The analysis was done with NASCAR data, the result showed that higher absolute prize differentials between the top finishing positions improved driver performance. Kepes et al. (2009) study corroborated this finding by showing that higher pay dispersion between truck drivers was negatively associated with a firm's out-of-service days and positively associated with return-on-equity.

CONCLUSION AND RECOMMENDATIONS

Based on the findings of this study; vertical pay dispersion relates with adaptability of the workforce. The results hypothesized shows a significant relationship between vertical pay dispersion and adaptability. This is very instructive to firm's management that, a unit increase in vertical pay dispersion has potential to improve adaptability even without considering the effects of other exogenous variables. Vertical pay dispersion has the potential of influencing responsiveness of the workforce. This is as the results show a positive as well as significant relationship between vertical pay dispersion and responsiveness. This is very instructive to firm's management that, a unit increase in vertical pay dispersion has potential to improve responsiveness even without considering the effects of other exogenous variables. Vertical pay dispersion has the potential of influencing cooperation of the workforce. This is as the results show a positive as well as significant relationship between vertical pay dispersion and cooperation. This is very instructive to firm's management that, a unit increase in vertical pay dispersion has potential to improve responsiveness even without considering the effects of other exogenous variables.

Based on the conclusion, it was recommended that: Indigenous oil and gas firms should on a consistent basis, assess their dispositions and the applicability of their pay structure within their various contexts. The applicability of such would determines their effectiveness and also impacts on their responsiveness, adaptability and cooperation. Indigenous oil and gas firms should emphasize on vertical pay dispersion, by incorporating it in the process of organizing and planning for a more effective stance towards highly volatile and unpredictable business environments

REFERENCES

- Adams, J. (1963). Toward an understanding of inequity. *Journal of Abnormal Psychology*, 67(1), 422-436.
- Akerlof, G. A., & Yellen, J. L. (1988). Fairness and unemployment. *The American Economic Review*, 78(2), 44-49.
- Beaumont, P. B., & Harris, R. I. (2003). Internal wage structures and organizational performance. *British Journal of Industrial Relations*, 41(1), 53-70.
- Bebchuk, L., Cremers, M., & Peyer, U. (2011). The CEO pay slice. *Journal of Financial Economics*, 102, 199– 221.

- Belfield, R., & Marsden, D. (2003). Performance pay, monitoring environments, and establishment performance. *International Journal of Manpower*, 24(4), 452-471.
- Bishop, J. (1987). The recognition and reward of employee performance. *Journal of Labor Economics*, 5 (4, Part 2), S36-S56.
- Bishu, S. G., & Alkadry, M. G. (2017). A systematic review of the gender pay gap and factors that predict it. *Administration & Society*, 49(1), 65-104.
- Blau, P. (1955). *The Dynamics of Bureaucracy*. Chicago: Syllabus Division, University of Chicago Press.
- Bloom, M. (1999). The performance effects of pay dispersion on individuals and organizations. *Academy of Management Journal*, 42(1), 25-40.
- Bloom, M., & Michel, J. G. (2002). The relationships among organizational context, pay dispersion, and among managerial turnover. *Academy of Management Journal*, 45(1), 33-42.
- Braun, T. J., Hayes, B. C., DeMuth, R. L. F., & Taran, O. A. (2017). The development, validation, and practical application of an employee agility and resilience measure to facilitate organizational change. *Industrial and Organizational Psychology*, 10(4), 703-723.
- Brown, M. P. 2006. The effect of nursing professional pay structures and pay levels on hospitals' heart attack outcomes. *Health Care Management Review*, 31(3), 241-250.
- C.-S. Tsai, C.-W. Chen, C.-T. Li, (2008). *Align agile drivers, capabilities and providers to achieve agility: A fuzzy-logic QFD approach,* in supply chain, V. Kordic, Ed. I-Tech Education and Publishing.
- Chen, K. P. (2003). Sabotage in promotion tournaments. *Journal of Law, Economics, and Organization*, 19(1), 119-140.
- Chizema, A., Liu, X., Lu, J., & Gao, L. (2015). Politically connected boards and top executive pay in Chinese listed firms. *Strategic Management Journal*, 36(6), 890-906.
- Connelly, B., Haynes, K., Tihanyi, L., Gamache, D., & Devers, C. (2016). Minding the gap: antecedents and consequences of top management-to-worker pay dispersion. *Journal of Management*, 42(4), 862-885. 52
- Canyon, M. J., Peck, S. I., & Sadler, G. V. (2001). Corporate tournaments and executive compensation: Evidence from the UK. *Strategic Management Journal*, 22(8), 805-815.
- Cowherd, D. M., & Levine, D. I. (1992). Product quality and pay equity between lower-level employees and top management: An investigation of distributive justice theory. *Administrative Science Quarterly*, 8(1), 302-320.
- DeBrock, L., Hendricks, W., & Koenker, R. (2004). Pay and performance: The impact of salary distribution on firm-level outcomes in baseball. *Journal of Sports Economics*, 5(3): 243-261.
- Deutsch, M. (1985). *Distributive Justice: A Social-psychological Perspective*. New Haven: Yale University Press.
- Ding, D., Akhtar, S., & Ge, G. (2009). Effects of inter-and intra-hierarchy wage dispersions on firm performance in Chinese enterprises. *The International Journal of Human Resource Management*, 20(11), 2370-2381.
- Downes, P., & Choi, D. (2014). Employee reactions to pay dispersion: A typology of existing research. *Human Resource Management Review*, 24(1), 53-66.
- Dye, R. A. (1984). The trouble with tournaments. *Economic Inquiry*, 22(1), 147-149.
- Fadoua, T., & Amina, T. (2020). A framework for measuring workforce agility: Fuzzy logic approach applied in a Moroccan manufacturing company. *Advances in Science, Technology and Engineering Systems Journal*, 5(3), 411-418.
- Fairness and unemployment. The American Economic Review, 78(2): 44-49. Akerlof, G.A., and Yellen, J.L. 1990. The Fair Wage-effort Hypothesis and Unemployment. *Quarterly Journal of Economics*, 105, 255-283.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7, 117-140.

- Finkelstein, S., Hambrick, D. C., & Cannella, A. A., Jr. (2009). *Strategic Leadership: Theory and Research on Executives, Top Management Teams and Boards*. Oxford, UK: Oxford University Press.
- Firth, M., Leung, T. Y., & Rui, O. M. (2010). Justifying top management pay in a transitional economy. *Journal of Empirical Finance*, 17(5), 852-866.
- Firth, M., Leung, T., Rui, O., & Na, C. (2015). Relative pay and its effects on firm efficiency in a transitional economy. *Journal of Economic Behavior & Organization*, 110, 59-77.
- Folger, R., & Greenberg, J. (1985). Procedural justice: An interpretive analysis of personnel systems. *Research in Personnel and Human Resources Management*, 3(1), 141-183.
- Muduli, A. (2016). Exploring the facilitators and mediators of workforce agility: An empirical study. *Management Research Review*, 39(12), 1567–1586.