

**THE ANTECEDENTS OF INDIVIDUAL JOB PERFORMANCE
AND MODERATING EFFECT OF ROLE STRESS:
PATH MODELS ON THE LOGISTICS SERVICE
INDUSTRY IN THAILAND**

**Yuichi Tadokoro¹
Parvathy Varma²**

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Abstract: The research examined the effect of organizational justice, perceived organizational support on organizational commitment, and job performance and the moderating effect of role stress of employees in logistics service providers in Thailand. This research employed a path model utilizing structural equation modeling with multivariate techniques combining methods of factor analysis. The application of multi-group analysis clarified the moderating effects of role stress by grouping the low role stress group and high role stress group of respondents. Data was collected from 889 professional white-collar workers from 15 logistics service providers in Thailand. There are two groups that include the low role stress group (n=426) and high role stress group (n=433) of respondents which were segregated based on the median. This research revealed that perceived organizational support ultimately contributes to individuals' job performance. The results indicated moderation effects of role stress, i.e. organizational justice is a significant factor that contributes to organizational commitment in high role stress group, unlike in low role stress group. Organizational commitment has significant negative effect on counterproductive work behavior in low role stress group, unlike in high role stress group. The findings can be inferred as organizational justice and support are perceived as benefits by individuals, which initiates the social exchange relationship then enhances job performance of the individuals in an organization via organizational commitment. This study has concrete managerial implications, such as by announcing and actualizing the flexible workplace can be an effective and efficient measures for the logistics service industry.

¹ M.S. in Supply Chain Management, General Manager of Sumisho Global Logistics (Thailand) Co., Ltd., Thailand. tadokoro.y@sgl.co.th

² Ph. D., Director of Graduate Programs in Counseling Psychology, Graduate School of Human Sciences, Assumption University, Thailand. parvathuvarma@hotmail.com

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Introduction

Individuals in organizations are core players who conduct themselves accordingly to perform their occupational roles, even when automation and innovative information technologies are introduced in their industries. However, the relationship between the individuals and the organization do not always have a sufficient relationship which has unavoidable consequences. Social exchange theory attempts to explain social phenomenon through human behavior of exchanging the social values between at least two parties and focuses on the norm of 'reciprocity' (Gouldner, 1960). The reciprocity implies that both parties in the relationship perceive each other as receiving a certain value from others and return the values to others. This exchange of relationship has been labeled as social exchange relationship and it is distinct from the economic exchange relationship that encompasses exchange relationship of the wage and labor forces (Blau, 1964). This indicates that organizational intervention to the social exchange relationship can provide improvement or hindrance to the individuals. The insight of the social exchange theory might have a solution for the constructing a better relationship.

The World Health Organization (WHO, 2018) emphasized on the significance of improving health dimension in jobs by reducing the work-related stress to enhance occupational health. A healthy job holds appropriate levels of pressure on individuals, matching the abilities and resources to the job, and receives support from the stakeholders. Moreover, health is not just the absence of disease, but a positive condition of complete mental and social well-being, in addition to a complete physical state of fitness. Inversely, stress at work worsens in specific environments that lack social well-being and when individuals feel they have little support from stakeholders and little control over work processes. Stress in the organization is discussed in terms of work-related stress, job stress, occupational stress, and role stress (Parker & DeCotiis, 1983; Motowidlo et al., 1986; Lambert & Lambert, 2001). Role theory indicates the presence of role stress in the workplace (Kahn et al., 1964). Role theory takes a different approach in comparison to social exchange theory, it brings out that having a good social exchange relationship alone might not fully eliminate the existence of stress in individuals at workplace. Hence, this research concurrently takes an approach from the role theory and it explains individual's perception deeper than the single approach from social exchange theory.

According to Batt (2002), majority of empirical researches on human resource performance are conducted on blue-collar workers in manufacturing sectors. Stock (1997) identified that there is a dearth of empirical research on logistics field for theory development. Moreover, the function of stress at workplace has room for discussion because of the contradicted claims between the positive and negative effect on the individual variables such as the individual job performance, organizational commitment, and job satisfaction (Lankau et al., 2006; Rizzo et al., 1970). The mentioned gap implies room for research to explore the function of the role stressors on individuals and would contribute to provide the clarification of the relationship among role stress, organizational commitment, and, job performance.

Objective

The objective of this research is to develop a conceptual framework, and test the hypotheses related to job performance, organizational commitment, role stress, organizational justices, and perceived organizational support grounded on the social exchange theory. The main research question explored is *“Do organizational justice and perceived organizational support affect job performance indirectly, mediated by organizational commitment and moderated by role stress?”*

Literature Review

Social exchange theory is a significant conceptual paradigm for revealing behavior at workplace and in the view of the exchange of loyalty and effort of the individuals and rewards from the organization (Cropanzano & Mitchell, 2005). A social behavior is defined as an exchange of goods, like material goods and non-material goods such as prestige, affirmation, and symbols of approval (Homans, 1958). Gouldner (1960) specified, if one party treats the other party well, the reciprocity forces the treated party to return the benefit and favor. Thereby, it is possible that non-material goods such as perception of fairness can initiate the social exchange relationship through individual's responses as well as the exchange of mutual benefits, or enhancing the level of exchange (Eisenberger et al., 1986; Rupp & Cropanzano, 2002). In turn, the social exchange relationship holds on the background of reciprocity with the perception of fairness. Organizational support theory is in line with social exchange theory in terms of the exchange relationship between individuals providing the effort and loyalty and the organization providing social resources and tangible benefits (Rhoades & Eisenberger, 2002; Cropanzano & Mitchell, 2005). Organizational support theory supports the practice of reciprocity and the concept of social exchange relationship, but it focuses more on the perceived organizational support, i.e., individuals' beliefs concerning how the organization places importance on the employee's contribution and

their well-being (Rhoades et al., 2001). There is some commonality in social exchange approach and organizational support theory, both indicates that individuals reciprocate favorable treatment with organizational commitment and job performance (Rhoades et al., 2001; Kurtessis et al., 2017). Thus, the work environments do play an important role based on organizational support theory and social exchange theory.

In addition to social exchange, Blau (1964) elaborates on the existence of power in social life and concludes that power contributes to create inequality among subordinates with their superiors. It indicates the usage of power of organization and social exchange relationship as undividable. The power influences individuals or groups, including those executed in exchange transactions whereby one induces others to do one's wishes by rewarding them for doing so (Blau, 1964). The relationship between the individual's effort and reward from organizations is called a social exchange relationship which creates power in the organization through the process of social transactions. Distributing the power within the organization requires organizational justice and individuals' activities within the organization are defined by their roles. In this context, early social exchange research focused on the role of individuals' attention in the perceptions of fairness; and nowadays, the implications of social exchange relationship for organizational justice have been recognized, e.g., procedural justice linking with the organization and interactional justice linking with the supervisor (Rupp & Cropanzano, 2002). Perception of justice is an essential input for an individual's judgments of the quality of social exchange relationships (Masterson et al., 2000). Moreover, researchers indicated that it is importance of organizations to be aware of organizational justice (Colquitt et al., 2001; Lavelle et al., 2007; Rhoades et al., 2001; Cohen-Charach & Spector, 2001).

As the creation of power in the organization through social exchange, organizations provide roles to the individuals with authorization. Both classical role theory and organizational theory describe the position that formal organizational structures specify a responsibility and position or a set of tasks (Rizzo et al., 1970). Katz and Kahn (1966) emphasized the concept of the role as a key factor for connecting organizations and individuals. Biddle (1986) explained roles from the perspective of role theory in which individuals are considered members of a specific group holding with the expectation for their behaviors and performances in their social positions. Role theory provides an approach to the relationship between the organization and individuals differentiated from the social exchange theory and organizational support theory. Role theory offers functional and formal relationship for individuals among the social members and organization that contains a certain

force to individuals; unlike the relationship that the other two theories offer. Hence, it is possible to indicate that organizations provide roles to individuals which may cause stress.

Rizzo et al., (1970) also indicated that role stress generally increases the probability of individuals becoming dissatisfied with the provided role by the organization and will therefore experience anxiety, which will negatively affect their organizational reality, and as a result, perform less effectively and stress in the workplace is considered to impact individuals' bond to the organization and their performance. Researchers who insist the negative effect of stress factors on organizational commitment or job performance had also not denied the differences of stress perception by individuals (Lankau et al., 2006). Therefore, levels of the stress exist on the individuals and different degrees of stress levels are possible to provide the specific influences for individuals' perception in the work environments. Therefore, this research focuses on moderating effect of stress level, i.e. lower role stress group and higher role stress group have a different direction of relationship for the concerned variables.

The notion that individuals' job performance can be a source of the organizational performance and effectiveness is widely agreed. A significant correlation was confirmed for the association between individual job performance and organizational performance (Goodman & Svyantek, 1999). Job performance is not only the simple behaviors of the core-task of an assigned job, but also contains wider behaviors of individuals in the organization. Furthermore, Viswesvaran (2001) pointed out the existence of counterproductive work behavior such as having negative values for organizational effectiveness should be included in assessing job performance. Hence, Job performance is multi-dimensional in that each of the components has unique characteristics and cannot be combined (Campbell & Wiernik, 2015; Murphy & Kroeker, 1988; Koopmans et al., 2016). This research applies the three models of job performance measurement, which are task performance, contextual performance, and counterproductive work behavior (Koopmans et al., 2016).

The literature review clarified the variables to investigate the theoretical linkage between the suggested variables i.e., organizational justice, perceived organizational support, organizational commitment, task performance, contextual performance, counterproductive work behavior, and role stress. The definition of the discussed variables is summarized in Table 1.

Table 1: *The Definition of the Variables*

	Definition	Researchers
Organizational Justice	A personal evaluation about the ethical and moral standing of managerial conducts.	Cropanzano et al., (2007)
Perceived Organizational Support	A global belief of the individuals concerning the organization values the individuals' contribution and cares about their well-beings	Eisenberger et al., (1986)
Organizational Commitment	A relative strength of an individual's identification and involvement with a particular organization.	Mowday et al., (1978)
Task and Performance	A behavior formally recognized as the job role which contribute to the organization's technical core.	Borman & Motowidlo (1997)
Contextual Performance	A behavior that supports the organizational, social and psychological environment in which the technical core must function.	Borman & Motowidlo (1997)
Counterproductive Work Behavior	A behavior that harms the well-being of the organization.	Rotundo & Sackett (2002)
Role Stress	A stress experienced by the individual because of their role in the organization.	Khetarpal & Kochar (2006)

Conceptual Framework

Based on the reviewed literature, individuals and organizations are in a state of mutual beneficial relationship grounded on the norm of reciprocity. Organizations attempt to provide improved work environments to individuals with the expectation of higher attachment for the organization as well as higher job performance whereby individuals attempt to return the values by following the expectations of the organization. The concept of social exchange theory provides the theoretical background to the mutually beneficial relationship between the organization and individuals, such that the organization provides a fair and supportive environment through organizational justice and perceived organizational support and individuals offer back the psychological state of belongingness to the organization as organizational commitment, then finally, organizational commitment becomes associated with individual's job

performance (Eisenberger et al., 1986; Robinson et al., 1994; Colquitte et al., 2001; Meyer et al., 2002). Moreover, researches that indicated structural paths between the suggested variables are summarized on Table 2.

Table 2: *Structural Paths between the Variables*

Structural Paths		Researchers
Organizational Justice	→ Organizational Commitment	Folger & Konovsky (1989); Crow et al., (2012)
Perceived Organizational Support	→ Organizational Commitment	Masterson et al., Rhoades & Eisenberger (2002); Ahmed et al., (2015)
Organizational Commitment	→ Task Performance	Tseng & Lee (2011); Robbins & Judge (2015)
Organizational Commitment	→ Contextual Performance	Cichy et al., (2009); Robbins & Judge (2015); Al Zefeiti & Mohamad (217)
Organizational Commitment	→ Counterproductive Work Behavior	Ramshida & Manikandan (2013); Ugwu & Okafor (2018)

On the other hand, it is the organization that provides the roles to the individuals and that could create role stress. Stress in the workplace is considered to influence individuals' bond to the organization and their performance. Role stress, including occupational stress or job stress is part of a multidisciplinary research in behavioral science. However, most of the studies treat stress related variables as an independent variable or dependent variable (LePine et al., 2005; Coetzee & Chetty, 2015; Sonnentag & Frese, 2003; Panaccio & Vandenberghe, 2009; Rizzo et al., 1970; Beehr et al., 2003; Stamper & Johlke, 2003). An approach focusing on the degree of stress level effects the different perceptions of individuals may serve as an alternative perspective and the contradictions related to stress factors are not conclusive, yet as Viswesvaran et al., (1999) indicated, rational approaches for the potential moderators related to studies on stress are required. Several researches offered and concluded the moderators of stress included organizational justice, organizational commitment, job performance, and counterproductive work behavior (Beehr et al., 1976; Jamal, 1984; Viswesvaran et al., 1999; Wiesner et al., 2005; Judge & Colquitt, 2004; Penney & Spector, 2005). These claims indicate that role stress itself is the potential moderator of these organizational variables. Therefore, the following conceptual framework is offered in addition to linkages between each variable.

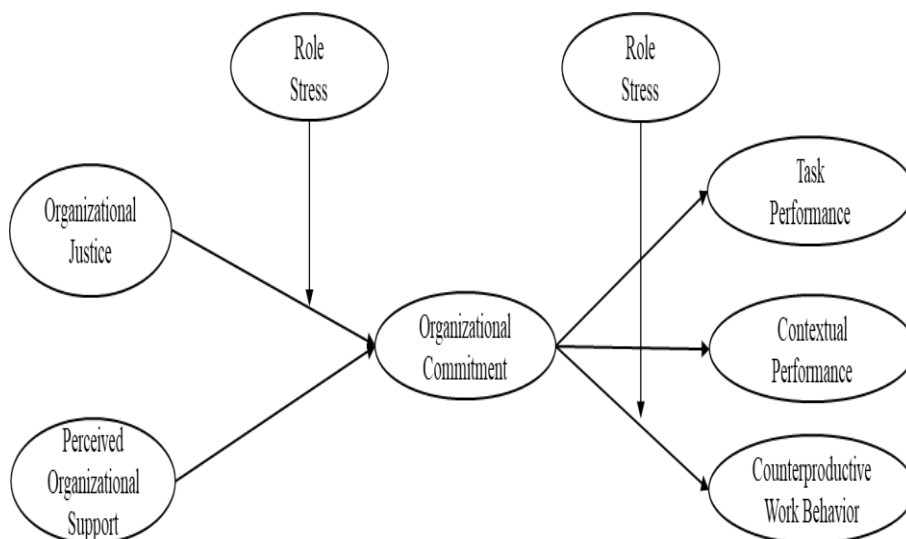


Figure 1: Conceptual Framework with the Moderating Effect of Role Stress

The literature review clarified the variables to investigate with the theoretical linkage between the suggested variables i.e., organizational justice, perceived organizational support, organizational commitment, task performance, contextual performance, counterproductive work behavior, and role stress. Moreover, this research presumes the existence of moderating effect of role stress between the organizational justice and organizational commitment as well as organizational commitment and counterproductive work behavior. The explanations of each hypothesis are described.

The concept of organizational justice originated from equity theory as a factor of distributive justice. Walster et al., (1973) summarized the relationship of fairness perception and stress from the perspective of equity theory as the higher inequitable perception of individuals i.e., the higher perceived distress. In addition, uncertainty can be considered a potential risk for the individuals and unfair treatment by uncertain management of the organization may possibly cause stress to individuals. Uncertainty and lack of fair management then become the components of the stress (Beehr & Bhagat, 1985). Hence, it is possible to consider that organizational justice has a certain relationship with role stress from the perspective of the equitability and uncertainty.

This study presumes that stressful work environment to the individuals has certain negative effect on the relationship between organizational justice and organizational commitment. According to Greenberg (2004), stressful

reactions can be mitigated by application of organizational justice. Conversely, it is possible that the high degree of role stress group perceives organizational justice more than the low degree group. Even from the perspective of social exchange theory, high degree of role stress group might expect more benefit than low degree group since reciprocity forces the individuals mind to return the benefit from organization. As a result, the high degree of role stress group places importance of organization's application of justice and once the high level of organizational justice confronts on individuals, individuals heighten the organizational commitment. Therefore, first hypothesis offered is.

Hypothesis 1 (H1): Organizational Justice is positively related to the degree of Organizational Commitment in the high degree of Role Stress group.

From the opposite angle, it cannot be definitely concluded that the low degree of role stress group indicates the negative relationship between organizational justice and organizational commitment since injustice causes stress (Greenberg, 2004). It is difficult to consider that once organization applies the low level of justice, individual's organizational commitment would be increased. At the same time, there is little evidence that low degree of role stress group and high degree of role stress group has same perception toward the organizational commitment. Therefore, second hypothesis offered is.

Hypothesis 2 (H2): Organizational Justice has no relationship to the degree of Organizational Commitment in the low degree of Role Stress group.

The incongruence between the role demand and available sources surrounding the individuals cause the role stress that finally affect the organizational commitment via the psychological strain. Specifically, the negative effect of role stress on the organizational commitment was indicated (Allen & Meyer, 1990; Cooper et al., 2001; Addae et al., 2008). Counterproductive work behavior is individuals' negative effects of behaviors in the organization, which has an opposite direction with task and contextual performance (Borman & Motowidlo, 1993; Rotundo & Sackett, 2002). This research has basic presumption that individuals who have high organizational commitment would have low counterproductive work behaviors in order to maintain organizational sustainable outcomes. In addition, the low degree of role stress group might not impact for the basic presumption, therefore, the third hypothesis offered is.

Hypothesis 3 (H3): Organizational Commitment is negatively related to the degree of Counterproductive Work Behavior in the low degree of Role Stress group.

The counterproductive work behavior is the intentional behaviors that include harmful behaviors to the organization or individuals' relationship in the organization (Bennet & Robinson, 2000; Gruys & Sackett, 2003). In the case of individuals possessing high degrees of role stress, enables them to react positively to counterproductive work behavior. The concept is in line with the basic concept of stress and job performance has a negative linear relationship. Moreover, Sullivan and Bhagat (1992) claimed that individuals faced with stress are more likely to spend time engaging in undesirable activities such as wasting time or sabotage. It is possible that even possessing the high levels of organizational commitment, the high degree of role stress group lead to negative behaviors in the organization. Therefore, the fourth hypothesis offered is.

Hypothesis 4 (H4): Organizational Commitment is positively related to the degree of Counterproductive Work Behavior in the high degree of Role Stress group.

Method/Procedure

This research employed a deductive approach, cross-sectional method with self-reporting, and path models utilizing structural equation modeling (SEM) with multivariate techniques combining methods of factor analysis. Firstly, this research applied exploratory factor analysis (EFA) in order to reduce the factors and extract the meaningful items from the questionnaires. Secondly, it applied confirmatory factor analysis (CFA) in order to evaluate the adequacy of extracted factors. Thirdly, distinctions of each variable are measured by discriminant analysis. Finally, it applied the path model in order to conclude the hypotheses and multi-group analysis for comparing the low role stress group and high role stress group.

White-collar workers in a logistics service provider in Thailand were selected as the target industry since knowledge and transformation of knowledge in the logistics service industry is significantly important for the capability of them where white-collar workers perform knowledge-based tasks (Hopp et al., 2009; Multaharju & Hallikas, 2015). The logistics service provider is defined broadly as a firm which provides any business of logistics services and it can include firms called 2PL who focus on the basic logistics activities such as transportation and warehousing; 3PL who focus on the integration of logistics service; and 4PL who focus on the integration of the supply chain which

heavily focuses on information technology and software solutions (CSCMP, 2013; Hanus, 2013).

The instrument originally comprises of 79 items from questionnaires with seven measures of organizational justice, perceived organizational support, organizational commitment, task performance, contextual performance, counterproductive work behavior, and role stress (Meyer et al., 1993; González-Romá & Lloret, 1998; Colquitte et al., 2001; Eisenberger et al., 2001; Koopmans et al., 2016). After the pilot test by fifty samples in a logistics service provider in Pathumthani Province of Thailand, the minor problems for describing demographic information were corrected. The pilot test results showed that all the variables have proper reliability, and the overall test is internally consistent after deleting a total of five items of low factor loading items, four items of role stress and one item of organizational commitment and research conducted in the 75 items questionnaires. After applying EFA using the method of principal component analysis as recommended by Wold et al., (1987), five items per measure were extracted by first to fifth high loading items with a total of 35 items from the structured questionnaire.

Findings/Results

1,000 questionnaires were distributed to the target respondents of 15 logistics service providers in Thailand and returned 889 questionnaires with a response ratio of 88.9 percent. However, 30 sets of unfinished samples were deleted. The unfinished samples contain missing data that were made by failing to answer some of the questions in the survey or returned as blank. Therefore, 859 samples were included in this research. The reliability analysis was applied to measure the internal consistency of the selected five items per construct. From Table 3 it can be noted that, Cronbach's alpha of each construct is more than 0.6 denoting the proper level of the internal consistency of the scales (Nunnally, 1978).

Table 3: Results of Reliability Analysis

Construct	Reliability (Cronbach's Alpha)
Organizational Justice	0.858
Perceived Organizational Support	0.915
Role Stress	0.793
Organizational Commitment	0.826
Task Performance	0.855
Contextual Performance	0.884
Counterproductive Work Behavior	0.914

CFA is conducted to assess the fit of the measurement model. It represents the degree to which the specified indicators represent the hypothesized constructs as $\chi^2/df=2.671$; RMSEA = 0.044; GFI = 0.909; CFI= 0.949. It indicates that items represent the constructs intended for measuring as shown in Figure 2.

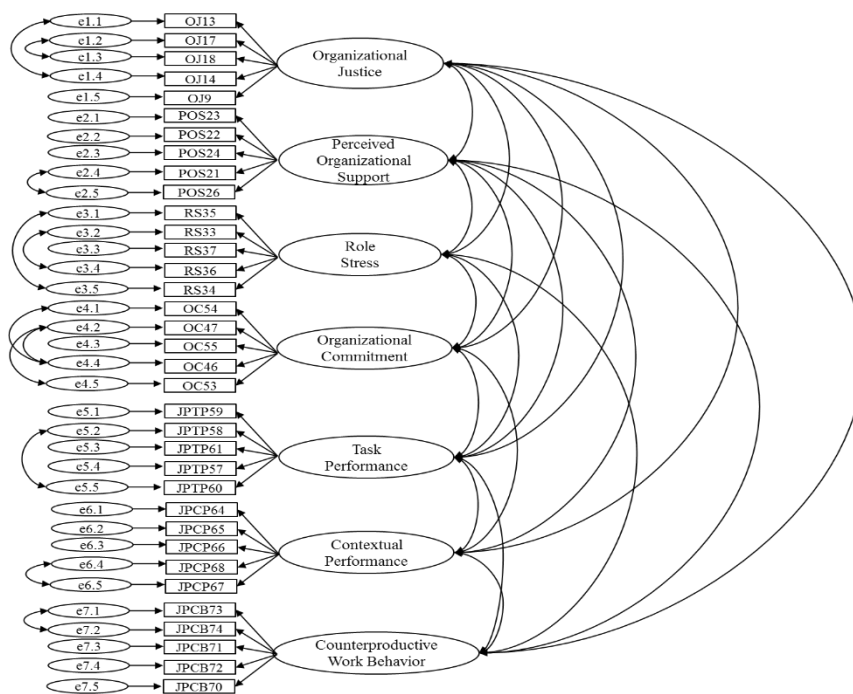


Figure 2: Confirmatory Factor Analysis to Measure the Fit of the Measurement Model

Note: $\chi^2/df=2.671$; RMSEA = 0.044; GFI = 0.909; CFI= 0.949

The estimates in Table 4 explain how each construct is distinct from other constructs based on discriminant analysis. It compared variance extracted in the diagonal table. The construct is distinct from other constructs when the variance extracted is more than the squared correlation. As results of comparisons, each construct is distinct from other constructs, however, a slight overlapping is observed between organizational justice and organizational support as well as task performance and contextual performance.

Table 4: *Results of Discriminant Analysis*

Constructs	OJ	OS	RS	OC	TP	CP	CB
Organizational Justice (OJ)	0.511	0.569	0.014	0.276	0.211	0.139	0.000
Organizational Support (OS)		0.699	0.040	0.345	0.127	0.125	0.001
Role Stress			0.449	0.075	0.018	0.020	0.070
Organizational Commitment (OC)				0.466	0.082	0.072	0.018
Task Performance (TP)					0.561	0.563	0.006
Contextual Performance (CP)						0.569	0.002
Counterproductive Work Behavior (CB)							0.677

Note: Diagonals are variance extracted. Off diagonals are squared correlations.

As a conclusion of CFA, the measurement tools used for measuring of the constructs of the research are adequate with satisfactory reliability and discriminant validity. Since the results of CFA provided the validity for the model, a comparison of the theorized model was compared by proceeding with SEM by the degree of role stress levels. This research examined the moderating effect of role stress. The application of multi-group analysis clarified the moderating effects of role stress by grouping the low role stress group and high role stress group of respondents. There are two groups that include the low role stress group ($n=426$) and high role stress group ($n=433$) of respondents from total sample of 859 which were segregated based on the median. The results are shown in Table 5 and Table 6 as well as Figure 3 and Figure 4. The moderating effects of role stress are well noticeable.

Table 5: *Statistical Results of Low Role Stress Group*

Structural Paths	Low Role Stress Group				
	Unstandard Estimate	Standard Error	t-value	p-value	Standard Estimate
Organizational Justice -> Organizational Commitment	0.183	0.100	1.841	0.066	0.138
Perceived Organizational Support -> Organizational Commitment	0.430	0.075	5.702	***	0.502

Structural Paths	Low Role Stress Group				
	Unstandard Estimate	Standard Error	t-value	p-value	Standard Estimate
Organizational Commitment -> Task Performance	0.261	0.049	5.309	***	0.391
Organizational Commitment -> Contextual Performance	0.302	0.058	5.195	***	0.340
Organizational Commitment -> Counterproductive Work Behavior	-0.174	0.055	-3.148	0.002	-0.192

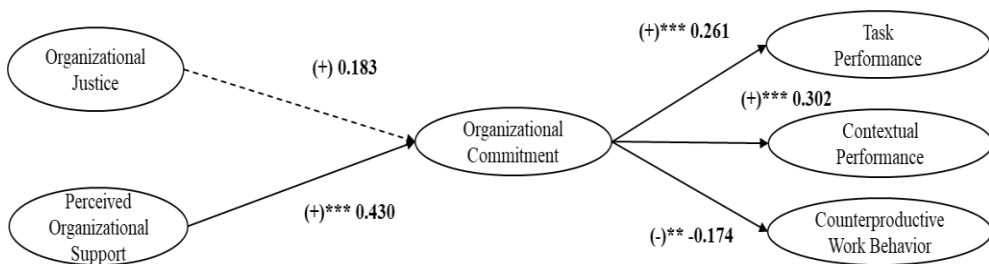


Figure 3: Path Model of Low Role Stress Group

Note: $\chi^2/df=2.224$; RMSEA = 0.038; GFI = 0.876; CFI = 0.940, the unstandardized estimates were presented: *** p < 0.001, ** p < 0.01, NS (dash line) denotes coefficients that are non-significant from zero at p > 0.05.

Table 6: Statistical Results of High Role Stress Group

Structural Paths	High Role Stress Group				
	Unstandard Estimate	Standard Error	t-value	p-value	Standard Estimate
Organizational Justice -> Organizational Commitment	0.532	0.132	4.042	***	0.314
Perceived Organizational Support -> Organizational Commitment	0.479	0.088	5.427	***	0.409
Organizational Commitment -> Task Performance	0.188	0.034	5.568	***	0.306
Organizational Commitment ->	0.175	0.031	5.586	***	0.312

Structural Paths	High Role Stress Group				Standard Estimate
	Unstandard Estimate	Standard Error	t-value	p-value	
Contextual Performance					
Organizational Commitment -> Counterproductive Work Behavior	0.229	0.04	5.693	***	0.307

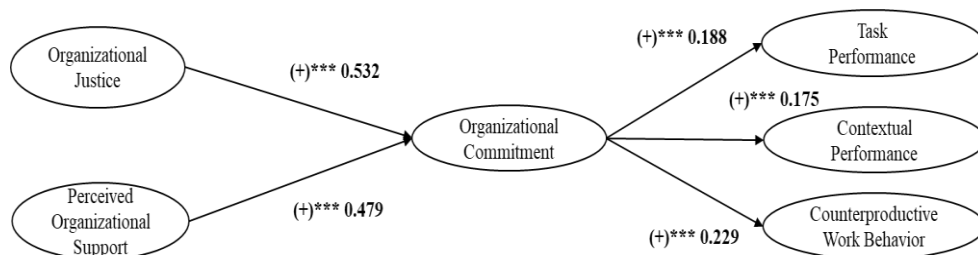


Figure 4: Path Model of High Role Stress Group

Note: $\chi^2/df=2.224$; RMSEA = 0.038; GFI = 0.876; CFI = 0.940, the unstandardized estimates were presented: *** $p < 0.001$, ** $p < 0.01$, NS (dash line) denotes coefficients that are non-significant from zero at $p > 0.05$.

The path models clarified the significant mediating effect of organizational commitment. Organizational commitment mediates the relationship between the independent variables of organizational justice and perceived organizational support and the dependent variables of task performance, contextual performance, and counterproductive work behavior. The results support the concept of social exchange theory that an organization tries to realize the organizational justice and offers the organizational support to the individuals, then, individuals enhance the organizational commitment that eventually drives the job performance (Eisenberger et al., 1986; MacKenzie et al., 1998; Colquitt et al., 2001; Meyer et al., 2002; Hunter & Thatcher, 2007)

In the low degree of role stress group, there is no significant relationship between organizational justice and organizational commitment. Perceived organizational support has a significant positive effect on organizational commitment. Organizational commitment has a significant positive effect on task performance and contextual performance. Conversely, significant negative effect on counterproductive work behavior was observed. In the high degree of role stress group, there is significant positive relationship between organizational justice and organizational commitment. Perceived

organizational support has a significant positive effect on organizational commitment and organizational commitment has a significant positive relationship with task performance, contextual performance, and counterproductive work behavior. Hence, two significant changes are noticeable between the results of low role stress group and high role stress group.

- 1) Organizational justice is positively related to the degree of organizational commitment in the high degree of role stress group. On the other hand, organizational justice has no relationship to the degree of organizational commitment in the low degree of Role Stress group.
- 2) Organizational commitment is negatively related to the degree of counterproductive work behavior in the low degree of role stress group. On the other hand, organizational commitment is positively related to the degree of counterproductive work behavior in the high degree of role stress group.

Then, proposed hypotheses; H1, H2, H3, H4 are supported, and this research concluded the moderation effect of role stress on the relationship between 1) organizational justice and organizational commitment and 2) organizational commitment and counterproductive work behavior.

Discussion

Research results concluded the answer for the research question that, *“Perceived organizational support affect job performance indirectly, mediated by organizational commitment and moderated by role stress in the low degree of role stress group and organizational justice and perceived organizational support affect job performance indirectly, mediated by organizational commitment and moderated by role stress in the high degree of role stress group”*. This research revealed that a belief of an individual that the organization values individuals’ contribution or perceived organizational support to individuals ultimately contributes to their job performance. Role stress is concluded as the factor that changes this relationship as high degree of role stress increases counterproductive work behavior even when organizational commitment is high; moreover, the existence of organizational justice is significant in the context of a high role stress environment.

The degree of role stress level causes significant difference in the existence of organizational justice i.e., low degree of role stress group does not perceive the existence of organizational justice; however, high degree of role stress group perceives the existence of organizational justice. Moreover, the degree

of role stress levels causes another significant difference for the relationship between organizational commitment and counterproductive work behavior, i.e., a negative relationship is observed in low role stress group and there is a positive relationship is observed in high role stress group.

The results confirm the conceptual framework and are grounded on social exchange theory that implies the relationship of reciprocity as well as role theory. It can be implied that role stress does play a significant role in workplace. Hence, the current research indicates the indirect influence of organizational justice and perceived organizational support on job performance mediate by organizational commitment in low and high role stress group. The results provide an answer to the relationship between the organization and individuals which do not always have a sufficient relationship that cannot be avoided. Organizational justice and support are perceived as a benefit by individuals, which start the social exchange relationship which returns heightened job performance from individuals to an organization via organizational commitment. Moreover, the individuals' job performance can be the source of organizational performance that finally could drive the entire economy (Goodman & Svyantek, 1999; Campbell & Wienik, 2015).

The mediating effect of organizational commitment provides the implication for the relationship between the organization and individuals. Organizational commitment is considered an array of obligations of individuals to the belonging organization (Robinson et al., 1994). Once organization provides the intangible rewards to individuals, they discharge their obligation by increasing organizational commitment since receiving the social benefits that invoke the reciprocity and develops a mind of obligation to the organization (Meyer et al., 2002). Organizational commitment is confirmed as an important variable from the perspectives of social exchange theory since it influences individuals to offer loyalty and dedication to an organization with heightened job performance as Rhoades and Eisenberger (2002) concluded. This research confirms the existence of social exchange relationship that exchanges intangible values of the organization and returns of the individuals based on the rule of the reciprocity and concludes that organizational commitment is one of the direct sources of the individuals' job performance since the commitment binds an individual to a target as well as committed individuals offer high levels of performance to organization.

This study suggests concrete implications for logistics service industry in Thailand. The major attributes of job performance were clarified as a possible foundation for competitive advantage of firms. Perceived organizational

support is confirmed as a stable predictor of organizational commitment as well as job performance from the research results. The resource-based view suggests the enhancement of human capital resources to develop the competitive advantage and it claims that human resource management can perform a major role in warranting the individuals in organization to meet the criteria of the human capital resources (Barney, 1991; Armstrong & Tayler, 2014). Moreover, the policies of human resource management are applicable for improving organizational commitment and job performance (Walton, 1985; Johnson & Szamosi, 2018). This study suggests a policy of human resource management that has linkage with perceived organizational support since it is stable predictor regardless of degree of role stress level.

According to Chou et al. (2018), the flexibility is an effective driver of service users' loyalty as well as forming their trust and it is a source of competitive advantage to improve the service users' attachment to a logistics service provider. In addition, the improvement in flexibility, service level and quality are the foundation of the operational performance as the organizational level, and individual's flexibility is one of the skill requirements for the logistics personnel as the individual level (Ward et al., 1998; Menon, 2012). Thus, from every perspective from the service users, organization, and individual, flexibility is significant factor for the logistics service industry and it is convincing to consider that human resource management of logistics service industry should place the importance in actualization of the flexibility in the organization.

Flexibility in the workplace is perceived as a kind of support that represents the organizations valuing the individuals as its benevolent intention (Bal et al., 2013). As this study concluded, perceived organizational support is confirmed as a stable predictor of organizational commitment which finally impacts individual job performance. Hence, it is possible to infer that increasing the flexibility in the workplace can contribute to increasing the individual's perceived organizational support. The concept of workplace flexibility is considered the delegation of decision makings from organizations to individuals to how work is managed (Hill et al., 2008). It maintains and improves individuals' motivation and performance and organizational commitment (Herrbach et al., 2009; Crawford et al., 2010; Glass & Finley, 2002). The realization of workplace flexibility is persuasive for the individuals to promote the understanding of the importance of flexibility since the organization itself intend to realize the flexibility that enhances the delegation of decision making at workplace to employees. Moreover, a flexible workplace has congruency for the external demands that users expect flexibility particularly in the logistics service industry.

The human resource management policy that the organization intends for enhancing the workplace flexibility should be announced both for external (service users) and internal (employees) in order to show the attitude and policy of the organization. For the service users, the announcement should be recognized as the sign of the managerial attitude that tries to realize the expected level of flexibility. For the employees, the announcement should be recognized as the initial sign of the organization trying to realize sufficient organizational support. Hence, this research suggests the announcing and actualizing the flexible workplace is one of the effective and efficient measures for success in the logistics service industry.

This research focuses on the logistics service industry in Thailand; therefore, the results may not be generalized to other countries and industries. Hence, applicability of the results should receive attention by testing the model in different regions or culture. This research employed a cross-sectional method that collected the data in one time. Therefore, a longitudinal survey method to collect the data from the same sample group over a period of time could be recommended. This research did not measure the applicability of specific human resource policies; therefore, future research should select a specific policy and measure its applicability in order to redesign the practices in the human resource management field. These research emphasizes on the moderating effect of role stress and provided certain clarity on the function of role stress, however, role stress is an intra-organizational type of stress. Sullivan and Bhagat (1992) suggested extra-organizational types of stressors are as important as intra-organizational sources. Hence, focusing on the both the intra- and extra-organizational types of stress can provide deeper visions for stress related research as compared with focusing on a single approach.

REFERENCES

- Addae, H. M., Praveen Parboteeah, K., & Velinor, N. (2008). Role stressors and organizational commitment: public sector employment in St Lucia. *International Journal of Manpower*, 29(6), 567-582.
- Ahmed, I., Nawaz, M. M., Ali, G., & Islam, T. (2015). Perceived organizational support and its outcomes: A meta-analysis of latest available literature. *Management Research Review*, 38(6), 627-639.
- Al Zefeiti, S. M. B., & Mohamad, N. A. (2017). The Influence of Organizational Commitment on Omani Public Employees' Work Performance. *International Review of Management and Marketing*, 7(2), 151-160.
- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the

- organization. *Journal of occupational and organizational psychology*, 63(1), 1-18.
- Armstrong, M., & Taylor, S. (2014). *Armstrong's handbook of human resource management practice*. Kogan Page Publishers.
- Bal, P. M., Kooij, D. T., & De Jong, S. B. (2013). How do developmental and accommodative HRM enhance employee engagement and commitment? The role of psychological contract and SOC strategies. *Journal of Management Studies*, 50(4), 545-572.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of management*, 17(1), 99-120.
- Batt, R. (2002). Managing customer services: Human resource practices, quit rates, and sales growth. *Academy of management Journal*, 45(3), 587-597.
- Beehr, T. A., Farmer, S. J., Glazer, S., Gudanowski, D. M., & Nair, V. N. (2003). The enigma of social support and occupational stress: Source congruence and gender role effects. *Journal of occupational health psychology*, 8(3), 220.
- Beehr, T. A., & Bhagat, R. S. (1985). Introduction to human stress and cognition in organizations. *Human stress and cognition in organizations*, 3, 19.
- Beehr, T. A., Walsh, J. T., & Taber, T. D. (1976). Relationships of stress to individually and organizationally valued states: Higher order needs as a moderator. *Journal of applied psychology*, 61(1), 41.
- Biddle, B. J. (1986). Recent developments in role theory. *Annual review of sociology*, 12(1), 67-92.
- Blau, P. M. (1964). *Exchange and power in social life*. Transaction Publishers.
- Borman, W. C., & Motowidlo, S. J. (1997). Task performance and contextual performance: The meaning for personnel selection research. *Human performance*, 10(2), 99-109.
- Borman, W. C., & Motowidlo, S. M. (1993). Expanding the criterion domain to include elements of contextual performance. *Personnel Selection in Organizations; San Francisco: Jossey-Bass*, 71.
- Campbell, J. P., & Wiernik, B. M. (2015). The modeling and assessment of work performance. *Annu. Rev. Organ. Psychol. Organ. Behav.*, 2(1), 47-74.
- Cichy, R. F., Cha, J., & Kim, S. (2009). The relationship between organizational commitment and contextual performance among private club leaders. *International Journal of Hospitality Management*, 28(1), 53-62.
- Chou, S., Chen, C. W., & Kuo, Y. T. (2018). Flexibility, collaboration and relationship quality in the logistics service industry: an empirical

- study. *Asia Pacific Journal of Marketing and Logistics*, 30(3), 555-570.
- Coetzee, M., & Chetty, P. J. (2015). Job stress and attitudes toward change: The mediating effect of psychological attachment. *Journal of Psychology in Africa*, 25(6), 528-536.
- Cohen-Charash, Y., & Spector, P. E. (2001). The role of justice in organizations: A meta-analysis. *Organizational behavior and human decision processes*, 86(2), 278-321.
- Colquitt, J. A., Conlon, D. E., Wesson, M. J., Porter, C. O., & Ng, K. Y. (2001). Justice at the millennium: a meta-analytic review of 25 years of organizational justice research. *Journal of applied psychology*, 86(3), 425.
- Cooper, C. L., Cooper, C. P., Dewe, P. J., O'Driscoll, M. P., & O'Driscoll, M. P. (2001). *Organizational stress: A review and critique of theory, research, and applications*. Sage.
- Council of Supply Chain Management Professionals (CSCMP), (2013), retrieved 2018-10-21
https://arquivo.pt/wayback/20160524204314/https://cscmp.org/sites/default/files/user_uploads/resources/downloads/glossary-2013.pdf
- Crow, M. S., Lee, C. B., & Joo, J. J. (2012). Organizational justice and organizational commitment among South Korean police officers. *Policing: An International Journal of Police Strategies & Management*.
- Crawford, E. R., LePine, J. A., & Rich, B. L. (2010). Linking job demands and resources to employee engagement and burnout: a theoretical extension and meta-analytic test. *Journal of applied psychology*, 95(5), 834.
- Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of management*, 31(6), 874-900.
- Cropanzano, R., Bowen, D. E., & Gilliland, S. W. (2007). The management of organizational justice. *The Academy of Management Perspectives*, 34-48.
- Eisenberger, R., Armeli, S., Rexwinkel, B., Lynch, P. D., & Rhoades, L. (2001). Reciprocation of perceived organizational support. *Journal of applied psychology*, 86(1), 42.
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived Organizational Support. *Journal of Applied Psychology*, 71(3), 500-507.
- Folger, R., & Konovsky, M. A. (1989). Effects of procedural and distributive justice on reactions to pay raise decisions. *Academy of Management journal*, 32(1), 115-130.

- Glass, J. L., & Finley, A. (2002). Coverage and effectiveness of family-responsive workplace policies. *Human resource management review*, 12(3), 313-337.
- González-Romá, V., & Lloret, S. (1998). Construct Validity of Rizzo et al. 's (1970) Role Conflict and Ambiguity Scales: A Multisample Study. *Applied Psychology*, 47(4), 535-545.
- Goodman, S. A., & Svyantek, D. J. (1999). Person–organization fit and contextual performance: Do shared values matter. *Journal of Vocational Behavior*, 55(2), 254-275.
- Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American sociological review*, 161-178.
- Greenberg, J. (2004). Stress fairness to fare no stress: Managing workplace stress by promoting organizational justice. *Organizational Dynamics*.
- Gruys, M. L., & Sackett, P. R. (2003). Investigating the dimensionality of counterproductive work behavior. *International journal of selection and assessment*, 11(1), 30-42.
- Hanus, P. (2013). The business profile shaping and the logistics information systems of 2PL, 3PL, 4PL operators. *Journal of Economics & Management*, 12, 5-21.
- Herrbach, O., Mignonac, K., Vandenberghe, C., & Negrini, A. (2009). Perceived HRM practices, organizational commitment, and voluntary early retirement among late-career managers. *Human Resource Management*, 48(6), 895-915.
- Hill, E.J., Grzywacz, J. G., Allen, S., Blanchard, V. L., Matz-Costa, C., Shulkin, S., & Pitt-Catsoupes, M. (2008). Defining and conceptualizing workplace flexibility. *Community, Work and Family*, 11(2), 149-163.
- Hopp, W. J., Iravani, S. M., & Liu, F. (2009). Managing white-collar work: An operations-oriented survey. *Production and operations management*, 18(1), 1-32.
- Homans, G. C. (1958). Social behavior as exchange. *American journal of sociology*, 63(6), 597-606.
- Hunter, L. W., & Thatcher, S. M. (2007). Feeling the heat: Effects of stress, commitment, and job experience on job performance. *Academy of Management Journal*, 50(4), 953-968.
- Jamal, M. (1984). Job stress and job performance controversy: An empirical assessment. *Organizational behavior and human performance*, 33(1), 1-21.
- Johnson, P., & Szamosi, L. T. (2018). *HRM in changing organizational contexts*. In *Human resource management* (27-48). Routledge.

- Judge, T. A., & Colquitt, J. A. (2004). Organizational justice and stress: the mediating role of work-family conflict. *Journal of applied psychology*, 89(3), 395.
- Kahn, R. L., Wolfe, D. M., Quinn, R. P., Snoek, J. D., & Rosenthal, R. A. (1964). *Organizational stress: Studies in role conflict and ambiguity*. John Wiley.
- Katz, D., & Kahn, R. L. (1966). *The social psychology of organizations*. New York: Wiley.
- Khetarpal, A., & Kochar, G. K. (2006). Role Stress and Preventive Management. *Internet Journal of World Health & Societal Politics*, 3(1), 2-2.
- Koopmans, L., Bernards, C. M., Hildebrandt, V. H., Lerner, D., de Vet, H. C., & van der Beek, A. J. (2016). Cross-cultural adaptation of the individual work performance questionnaire. *Work*, 53(3), 609-619.
- Kurtessis, J. N., Eisenberger, R., Ford, M. T., Buffardi, L. C., Stewart, K. A., & Adis, C. S. (2017). Perceived organizational support: A meta-analytic evaluation of organizational support theory. *Journal of Management*, 43(6), 1854-1884.
- Lambert, V. A., & Lambert, C. E. (2001). Literature review of role stress/strain on nurses: an international perspective. *Nursing & health sciences*, 3(3), 161-172.
- Lankau, M. J., Carlson, D. S., & Nielson, T. R. (2006). The mediating influence of role stressors in the relationship between mentoring and job attitudes. *Journal of Vocational Behavior*, 68(2), 308-322.
- Lavelle, J. J., Rupp, D. E., & Brockner, J. (2007). Taking a multifoci approach to the study of justice, social exchange, and citizenship behavior: The target similarity model. *Journal of management*, 33(6), 841-866.
- LePine, J. A., Podsakoff, N. P., & LePine, M. A. (2005). A meta-analytic test of the challenge stressor–hindrance stressor framework: An explanation for inconsistent relationships among stressors and performance. *Academy of Management Journal*, 48(5), 764-775.
- MacKenzie, S. B., Podsakoff, P. M., & Ahearne, M. (1998). Some possible antecedents and consequences of in-role and extra-role salesperson performance. *The Journal of Marketing*, 87-98.
- Masterson, S. S., Lewis, K., Goldman, B. M., & Taylor, M. S. (2000). Integrating justice and social exchange: The differing effects of fair procedures and treatment on work relationships. *Academy of Management journal*, 43(4), 738-748.
- Menon, S. T. (2012). Human resource practices, supply chain performance, and wellbeing. *International Journal of Manpower*, 33(7), 769-785.

- Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *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 organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of vocational behavior*, 61(1), 20-52.
- Motowidlo, S. J., Packard, J. S., & Manning, M. R. (1986). Occupational stress: its causes and consequences for job performance. *Journal of applied psychology*, 71(4), 618.
- Mowday, R. T., Steers, R. M., & Porter, L. W. (1978). The measurement of organizational commitment (No. TR-15). OREGON UNIV EUGENE GRADUATE SCHOOL OF MANAGEMENT AND BUSINESS.
- Multaharju, S., & Hallikas, J. (2015). Logistics service capabilities of logistics service provider. *International Journal of Logistics Systems and Management* 5, 20 (1), 103-121.
- Murphy, K. R., & Kroecker, L. P. (1988). *Dimensions of job performance*. Colorado State Univ Fort Collins.
- Nunnally, J. C. (1978). *Psychometric theory (2nd ed.)*. New York: McGraw-Hill
- Parker, D. F., & DeCotiis, T. A. (1983). Organizational determinants of job stress. *Organizational behavior and human performance*, 32(2), 160-177.
- Panaccio, A., & Vandenberghe, C. (2009). Perceived organizational support, organizational commitment and psychological well-being: A longitudinal study. *Journal of Vocational Behavior*, 75(2), 224-236.
- Penney, L. M., & Spector, P. E. (2005). Job stress, incivility, and counterproductive work behavior (CWB): The moderating role of negative affectivity. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 26(7), 777-796.
- Ramshida, A. P., & Manikandan, K. (2013). Organizational commitment as a mediator of counterproductive work behavior and organizational culture. *International Journal of Social Science & Interdisciplinary Research*, 2(2), 59-69.
- Rhoades, L., & Eisenberger, R. (2002). Perceived Organizational Support: A Review of the Literature. *Journal of Applied Psychology*, 87(4), 698-714.
- Rhoades, L., Eisenberger, R., & Armeli, S. (2001). Affective commitment to the organization: The contribution of perceived organizational support. *Journal of applied psychology*, 86(5), 825.

- Robbins, S. P., & Judge, T. (2015). *Organizational Behavior, Sixteenth edition*. Pearson Education Limited.
- Robinson, S. L., Kraatz, M. S., & Rousseau, D. M. (1994). Changing obligations and the psychological contract: A longitudinal study. *Academy of management Journal*, 37(1), 137-152.
- Rotundo, M., & Sackett, P. R. (2002). The relative importance of task, citizenship, and counterproductive performance to global ratings of job performance: A policy-capturing approach. *Journal of applied psychology*, 87, 66.
- Rizzo, J. R., House, R. J., & Lirtzman, S. I. (1970). Role conflict and ambiguity in complex organizations. *Administrative science quarterly*, 150-163.
- Rupp, D. E., & Cropanzano, R. (2002). The mediating effects of social exchange relationships in predicting workplace outcomes from multifoci organizational justice. *Organizational Behavior and Human Decision Processes*, 89(1), 925-946.
- Sonnentag, S., & Frese, M. (2003). *Stress in organizations*. John Wiley & Sons, Inc.
- Stamper, C. L., & Johlke, M. C. (2003). The impact of perceived organizational support on the relationship between boundary spanner role stress and work outcomes. *Journal of Management*, 29(4), 569-588.
- Stock, J. R. (1997). Applying theories from other disciplines to logistics. *International journal of physical distribution & logistics management*, 27(9/10), 515-539.
- Sullivan, S. E., & Bhagat, R. S. (1992). Organizational stress, job satisfaction and job performance: where do we go from here? *Journal of management*, 18(2), 353-374.
- Tseng, L. Y., & Lee, T. S. (2011). Can high-tech companies enhance employee task performance through organizational commitment? *International Journal of Business Administration*, 2(2), 94.
- Ugwu, E. S., & Okafor, C. O. (2017). Organizational commitment, occupational stress, and core self-evaluation as predictors of workplace deviance. *American Journal of Applied Psychology*, 6(4), 64-70.
- Viswesvaran, C., Sanchez, J. I., & Fisher, J. (1999). The role of social support in the process of work stress: A meta-analysis. *Journal of vocational behavior*, 54(2), 314-334.
- Viswesvaran, C. (2001). Assessment of individual job performance: A review of the past century and a look ahead. *Handbook of industrial, work and organizational psychology*, 1, 110-126.

- Walster, E., Berscheid, E., & Walster, G. W. (1973). New directions in equity research. *Journal of personality and social psychology*, 25(2), 151.
- Walton, R. E. (1985). From Control to Commitment in the Workplace: In factory after factory, there is a revolution under way in the management of work. US Dept. of Labor, Bureau of Labor-Management Relations and Cooperative Programs.
- Ward, P. T., McCreery, J. K., Ritzman, L. P., & Sharma, D. (1998). Competitive priorities in operations management. *Decision Sciences*, 29(4), 1035-1046.
- Wiesner, M., Windle, M., & Freeman, A. (2005). Work stress, substance use, and depression among young adult workers: an examination of main and moderator effect model. *Journal of occupational health psychology*, 10(2), 83.
- Wold, S., Esbensen, K., & Geladi, P. (1987). Principal component analysis. *Chemometrics and intelligent laboratory systems*, 2(1-3), 37-52.
- World Health Organization (WHO), (2018), Retrieved 2018-04-23 http://www.who.int/occupational_health/topics/stressatwp/en/