

# INNOVATIVE WORK BEHAVIOR: HR PRACTICE-RELATED KEY DRIVERS AND ITS IMPACTS ON WORK ROLE PERFORMANCE

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## ABSTRACT

**Purpose:** The research is conducted to determine key drivers of Innovative Work Behavior and measure the influence of Innovative Work Behavior on Work Role Performance by collecting opinions from Viettel's staffs. Through key findings, Viettel's managers could strategically plan to encourage employees' innovation and boost their performance as well as organizational achievements.

**Design/ method/ approach:** Questionnaires using Likert scale are designed on the basis of literature review and distributed to employees currently working in Viettel Group by convenience sampling. To analyze data, the software programs IBM SPSS and IBM AMOS are employed. IBM SPSS provides Reliability Analysis to test internal consistency, and Exploratory Factor Analysis to comprehend dimensions and patterns of factors. Likewise, IBM AMOS offers Confirmatory Factor Analysis to scrutinize the Goodness of Fit of the Measurement model and Structural Equation Modelling to produce regression weights.

**Findings:** The results suggest that Compensation System, Training and Development, Sharing Information, Supportive Supervision and Innovative Environment are positive correlated with Innovative Work Behavior. Innovative Work Behavior, similarly, has a positive effect on Work Role Performance.

**Originality/ value:** The Measurement model using maximum likelihood method proves trustworthy with unidimensionality, construct validity and indices of good fit passing recommended cut-off points. The sample may therefore be generalized to represent population. In addition, users of the research findings can be both university managers and undergraduates.

**Keywords:** Innovative Work Behavior, Work Role Performance, Structural Equation Modelling.

**Paper type:** Research paper.

## 1. Introduction

Under the huge impact of industrial revolution 4.0 as well as harsh competition in the global market, it is absolutely necessary for Vietnamese firms in general and Viettel group in particular to renovate their practices, structures, processes and products. In particular, they should be flexible and adaptive to emerging requirements from both external and internal environments, which not only gives the firms far much more qualified outcomes but also draws them to gain competitive advantage. Otherwise, they could probably be driven to the verge of depression. Statistics in 2019 show that Viettel Group accounts for 60% of the total profits of state-owned economic groups. Operating in the

telecommunications industry, technology improvement and innovation to adapt changes in the society are keys to enhance Viettel's competitive advantage in domestic and foreign markets. The latest statistics show that Viettel has a relatively high number of employees: up to nearly 50,000 people. Therefore, the selection of senior and mid-level personnel management at this enterprise is not simple. Other businesses could gain valuable lessons from this process. One important principle in Viettel's Human Resource Management are: preferring the skillsets and work efficiency over

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qualifications. Therefore, qualifications only count for a small difference in the human resource management process at Viettel. In this enterprise, they understand how to attach people with corporate culture to improve efficiency, to rotate staff's position to support business strategies, to encourage leaders setting themselves the example for further business development, to increase employee's understanding of work by daily training, and to focus on the importance of creativity and innovation in the work of employees.

In other words, innovation is the decisive factor for firms' long-term development and sustainability. Followed by previous researches over the past few decades, it is important to note that individuals – human capital play a key role in innovation because they are the holders and processors of ideas. Therefore, the only way to stimulate innovation quality is to fully understand how employees are motivated to perform innovative work behavior. Innovative work behavior (IWB) is defined as the behavior of an individual that is intended to intentionally create, introduce, and apply new ideas, processes, or products (Janssen, 2000).

The innovative work behavior of employees in every company is widely perceived to be affected by Human resource management spectrum because it is the provision of leadership and direction of people in their working or employment relationship. Human resource management is critical for staff to be able to influence the attitudes and behaviors at work as has been already proven through time. This is the reason why this study is conducted to investigate and verify the profound relationship between HR practices and work role performance, so that firms' board of management can utilize their current managerial potentials, upgrade or redesign them to boost outcomes' quality.

## 2. Literature review

Over the past decades, the importance of human resources as well as the improvement of human resources has gradually been increased for each organization. Most studies focus on innovation at the organizational level, where HR practices or HR systems have been shown to affect innovative outcomes, albeit through mediating variables such as knowledge or intellectual capital (Cabello-Medina, López-Cabrales, & Valle-Cabrera, 2011). The effect of HR practices on innovation at the individual level has received less attention (Yuan & Woodman, 2010). Therefore, in this research, we investigate the effect of four individual-level high-commitment HR practices on IWB: perceptions of the compensation system, of training and development, of information sharing, and of supportive supervision. The central idea is that employees who perceive that they are fairly compensated, who are offered training and development programs, who feel that information is shared with them, and who perceive that their supervisor supports them will repay the organization with IWBs. Based on these individual practices, we investigate to what extent perceptions of HR practices enhance IWB.

Organizations are able to stimulate desired behaviors by using HR practices that encourage specific attitudes and behaviors, and discourage undesired behaviors. An organization's managers signal which behaviors are valued and rewarded, and employees interpret the signal and behave accordingly. If employees perceive the organization as providing value, they will feel obliged to reciprocate with something of value, such as by helping the organization achieve its goals (Stinglhamber & Vandenberghe, 2003). If employees, through their perceptions of HR practices, conclude that innovative ideas are rewarded, and that

the work environment is focused on generating and championing new ideas, they will reciprocate with innovative behaviors.

The messages that organizational members receive from the organization concerning the type of behaviors that are important and that are expected, supported, and rewarded, are captured in the concept of organizational climate (Schneider & Reichers, 1983). An organizational climate that is supportive of innovative behavior is labelled an innovative climate. According to Schneider (1975), 'climates serve as frames of reference for the attainment of congruity between individual behavior and the organizational system's practices and procedures' (Malik & Wilson, 1995, p. 203). Individuals form impressions of an organization's practices through repeatedly experiencing these practices. Employees who perceive HR practices that make them feel valued in their work environment and that are supportive of innovation will understand that they can reciprocate through innovative behavior since this will help achieve organizational objectives.

This study focuses on behavior, and more specifically IWB, as an individual-level outcome. This outcome amounts to an innovation that is dependent on an employee's intentional effort to provide beneficial novel outcomes at work (Janssen, 2000). Based on the belief that it is employees who frame the innovative capacity of an organization through their intelligence, imagination, and creativity (Mumford, 2000), it is argued that certain HR practices can identify, develop, evaluate, and reward IWB (Ramamoorthy et al., 2005; Veenendaal & Bondarouk, 2015). We focus on the perceptions of those HR practices that are commonly used in the high-commitment HRM literature, some HR practices do show higher associations with commitment than others. Here, rather than adopting a systems

approach, we study the effect of perceptions of individual HR practices on IWB since combining the HR practices in systems loses information on why individuals behave in a certain way.

### **2.1. Compensation System**

The primary purpose of a compensation system is to formulate a reward system that is fair to both employers and employees (Ivancevich, 1998). Bysted and Jespersen (2014, p. 234) argued that employees need a clear signal before they will engage in IWB because they consider IWB to be risky behavior that thus 'has to be ordered and paid for by the system'. Rewards could be pressure to intrinsically motivated employees to do work they initially did out of interest or curiosity and this could reduce their interest in engaging in IWB. This negative scenario was confirmed by e.g. Dorenbosch et al. (2005) and Sanders et al. (2010). In contrast, employees who are not intrinsically motivated to engage in IWB, and perceive IWB as an extra-role behavior, will expect to be rewarded for such extra effort. Zhang and Begley (2011) provided evidence for this positive effect by showing that, when organizations used compensation systems to signal to their employees that extra-role behaviors, such as IWB, were recognized and valued, the employees concerned perceived their engagement in IWB as of value. To achieve these tasks necessitates efforts and is not effortless. To form an efficacious compensation system requires a firm to accommodate contemporaneously seven pillars as posited by Ivancevich (1998, 309)

- Adequacy: The maintenance of pay level should be deliberated
- Equitability: The competency, capabilities and efforts are equitably rewarded
- Balance: a composition of pay, benefits and rewards should be balanced and rational

- Cost effectiveness: undue pay should be precluded and based on organizations' capability to pay

- Security: pay should suffice to instill into an employee a sense of security

- Incentive provision: pay should be sufficient to impel and motivate employees to work productively

- Acceptability: employees should be content with the system of payment

Vis-à-vis the compensation system, the parity of it can be appraised in answering three questions

- Are the pay rates fair compared with employees?

- Are the pay rates fair compared with the market?

- Is each employee's pay equitable to others' for the same job?

Compensation systems receive a cornucopia of factors affecting it, namely the value of the job to the organization, the value of the employee and the value of both in the market (Sliedregt et al., 2001 & Beech and Chadwick, 2006). Based on the ideas underpinning social exchange theory, compensation positively influences IWB because employees who feel their efforts are being fairly rewarded feel obliged to reciprocate with discretionary extra role efforts, such as IWB (Janssen, 2000). Bateman and Snell (1996) was unswerving that a compensation system is founded upon three management-related decisions

- Pay level, high, average and low paying company

- Pay structure decision, classifying jobs, setting pay grade

- Individual pay decision, distinguish differences in pay within job families based on seniority and performance

The first hypothesis is developed as follows:

*H1: Compensation system positively influences Innovative Work Behavior*

## **2.2. Training and development**

The relationship between training and development practices and IWB can be understood as a social exchange phenomenon in which employees experience training and development practices as an organization's commitment to their human resources, which they then feel a need to reciprocate through positive attitudes and behaviors that are not formally rewarded or contractually enforceable, such as IWB (e.g. Sanders et al., 2010).

Training is the furtherance of learning, competence and attitude needed for an individual to perform a job (Armstrong, 2001). It is also the training is the process of enhancing knowledge of an employee for performing a job.

The objectives of training, although multifarious, can be categorized into four groups

- Individual objectives: Assist employees in attaining their personal aspirations

- Organizational objectives: Aid the organization in promoting individual efficiency

- Functional objectives: Keep the contribution at a level apposite to the organizations' needs

- Social objectives: Ascertain that the organization partakes of ethical and social responsibility for the needs of a society

The two types of training furnished to an employee are on-the-job and off-the-job training that provide job instructions, apprenticeship and coaching, job rotation, committee assignment, internship training as

well as classroom lectures, simulation exercise, simulation exercise, case study method, conference, workshop and seminars.

Employee development is a composition of employee education, employee skills, training effectiveness and employee quality of work life. Oatley (1970) believes that training promotes an individual's competency of a job. Training aids the performance of an employee, which is pivotal in spurring his/her productivity while Isyaku (2000) averred that the process of training and development is continuous. It is a method to attain knowledge and advance skills and techniques to operate effectually. Benson, Finegold, and Mohrman (2004, p. 326) argue that employees will 'respond to development opportunities with positive attitudes toward the company that offers the development'. These positive attitudes will result in behavior that is valuable for both the organization and for the employee.

For above reasons, the following hypothesis is built:

*H2: Training and Development positively influences Innovative Work Behavior*

### **2.3. Sharing information**

Exchanging information within a company can provide a plurality of benefits, ranging from engendering improvements to enhancing standards to revealing a less competitive environment to revealing a context of mutual understanding (Frank and Shah, 2003). A working environment that possesses open information sharing will be conducive to innovation, particularly when it is encouraged by management at high level.

An open system of information sharing has been found to be beneficial for innovation, especially when it is supported and stimulated by top management (Qin, Smyrnios, & Deng, 2012). Espousal of information sharing is an indispensable facet

of engagement in innovation process because if employees believe they are not keeping abreast of new information, they may refuse to partake in organizational activities. According to Vera and Crossan (2005), open information sharing is a critical aspect of participation in innovation processes because the risks of engaging in creative and spontaneous processes of improvisation are too high if teams feel they lack up-to-date information.

As an employee's feeling that information is being exchanged, it may result in higher level of Innovation Working Behavior. The exchange of communication serves to instill into an employee the sense of pursuing organizational goals or strategies. Employees will identify them and work in conjunction with the organization to realize mutual ambitions. Research shows that organizations not communicating their goals and not encouraging employees to share information can lead to negative outcomes because employees perceive this as procedurally unfair (Bowen & Ostroff, 2004).

Sharing information constitute a consequential role to fortifying trusts, support, and equity amongst employees. If a staff perceives the support of an organization, they may be urged to reciprocate by means of innovative behavior. Therefore, the following hypothesis is developed:

*H3: Sharing Information positively influences Innovative Work Behavior*

### **2.4. Supportive supervision**

In accordance with organizational support hypothesis (Eisenberger et al., 1986), director support impels changes in workers' senses of duty. Supervisory support is characterized as representatives' perspectives concerning how much their subordinators' worth their commitments and care about their prosperity. As operators of the association,

administrators are in charge of coordinating and assessing workers' activity execution. It can be understood as an HR practice (Boselie et al., 2001) and as a leadership behavior (e.g. Stinglhamber & Vandenberghe, 2003) in the form of perceived supervisor support (PSS) (Eisenberger, Stinglhamber, Vandenberghe, Sucharski, & Rhoades, 2002). Boselie et al. (2001) identified supervisor support as one of five high-commitment HR practices, and understood it as the employees' perceptions that they received regular performance feedback from their supervisors. Along these lines, representatives regularly see their administrator's input as characteristic of the association's direction toward them. Additionally, in light of the fact that workers know that their administrator's assessments of their activity execution are frequently conveyed to officials, who are viewed as the agents of the association, the relationship between full of feeling responsibility and director backing is reinforced.

Administrator bolster leads for workers to high duty through employment fulfillment and inspiration. Employees experiencing supportive supervision feel obliged to reciprocate by helping their supervisor achieve business unit goals (Rhoades Shanock & Eisenberger, 2006). This reciprocation toward their supervisor therefore increases in-role performance, and it can also lead to behaviors beyond the formal job description (Rhoades Shanock & Eisenberger, 2006). Shriesheim, and Stodgigill (1975) thought of their principle in the book of Personnel Psychology and they opined that Supervisor thought alludes to a pioneer practices worried about advancing the solace and prosperity of subordinates. It is estimated that workers who accept their bosses are chivalrous pioneers will perform high duty than the individuals who don't see that their directors in that

capacity. De Jong and Den Hartog (2007) presented various leadership behaviors that influence employees' innovative behavior. They concluded that supervisors should provide employees with challenging tasks, provide time and money to implement ideas, show appreciation for innovative performance, and stimulate open and transparent communication. Morris and Sherman (1981) discovered experimental proof supporting the perspective on supervisory thought. Manager thought again alludes to the fact that supervisors are strong, cordial and accommodating, counsel subordinates and perceive their commitment. Thus, the following hypothesis is formulated:

*H4: Supportive Supervision positively influences Innovative Work Behavior*

## **2.5. Innovative environment**

Organizational climate is a key driver for innovative work behavior. Individuals tend to interpret situations in ways that are psychologically meaningful to them (Jones & James, 1979) and this involves idiosyncratic interpretations, generalizations, and inferences (James & Sells, 1981). Initially, climate was seen as generic concept, embodying several dimensions of organizational practices that push employees toward having positive experiences of their workplace. For the organization to obtain clout and achievement, it is of paramount import to render the organizational environment creative. Organization environment encompasses behavioral patterns and attitudinal feelings visible in daily work and every individual staff can be receptive of them. Parker et al (2003) delve into organizational climate and discern four factors influencing it, autonomy and control, degree of structure, rewards and consideration, and cordial climate and support.

Climate is the common perception of policies, practices and a series of procedures

(Reichers & Schneider, 1990). Climate is the feelings, attitudinal and behavioral tendencies that constitute organizational life. Climate is the lynchpin of an organization. It refers to unspoken rules shaping individuals' manners. If employees are aware of the rules, they can adjust their demeanor accordingly. Schneider and Reichers (1983) argued that climates needed to be 'for something' and concluded that 'to speak of organizational climate per se, without attaching a referent is meaningless' (p. 21). Employees are likely to be compliant with norms, values and socially preferred group manners.

The influence of organizational climate on behavior is documented in literature. Pertaining to this, the social-political perspective intimates that when innovation is stimulated by an organization, it can lead to the birth of innovative organizational climate (Amabile, 1988). The essence of organizational support towards innovation will aid the conveyance of organizational values and norms which can influence employees' innovative work behavior vis-à-vis image gains or risks. Hence, the following hypothesis is built:

*H5: Innovative Environment positively influences Innovative Work Behavior*

## **2.6. Innovative work behavior**

Many researchers have summarized the definitions of innovative work behavior which are remarkable and become foundation for future works. According to Kleysen & Street (2001) and Yuan & Woodman (2010), Innovative Work Behavior can be described as individual actions with an aim to create, process and implement new ideas, consisting of new product initiatives, technologies, procedures and workflows, for the ultimate goal of enhancing the effectiveness and achievement of the organization. In their own research in 2015, Devloo, Anseel, De

Beuckelaer and Salanova suggested that this rather comprehensive behavioral construct takes into account not only the stage of idea generating but also their transformation into concrete innovations.

IWB is commonly encircled with regards to how individuals could encourage the achievement of commencement and purposeful introduction of new and valuable ideas, procedures or products (West and Farr, 1990). The introduction of new and valuable aspects does not run on a linear relationship and subsequently, IWB is understood as an acceptable multi-phase process involving idea generation, coalition building and implementation (Scott and Bruce, 1994). This viewpoint gives a refreshed look on innovative work behavior that was previously developed on a one-dimension model (Janssen, 2000). Other authors refer to two (Krause, 2004; Yuan & Woodman, 2010), three (Reuvers et al., 2008) and four dimensions (de Jong & Den Hartog, 2010; Dorenbosch et al. 2005; Knol & Van Linge, 2009). Recent studies have investigated IWB premised upon five associated sets of behavioural activities in specific: problem recognition, idea generation, idea development, idea championing and idea realization, could enhance the employees' ability to innovate (Kleysen & Street, 2001; Tuominen & Toivonen, 2011). The first three activities represent the creativity-oriented work behavior phase. The other activities are referred as implementation-oriented work behavior wherein individuals try to promote a novel idea to potential colleagues and managers and to realize actual ideas that are ultimately applied within the work role, group or total organization. Studies propose that people, who are willing and able to innovate, broaden their commitment beyond the scope of their job requirements and in the meantime,

realize a continuous flow of innovations (Parker, Williams and Turner, 2006).

An organization that aims for a constant growth of individual innovation must keep in mind that their employees are willing & ability to innovate (De Jong & Den Hartog, 2010). For this reason, various scholars have conducted research on the determinants of innovative behavior, which includes individual characteristics, intrinsic job factors, team factors, relationships at work and organizational factors according to West and Farr (1989). The first factor affecting IWB is the individual. A number of researchers placed great emphasis on individual innovation as it is an aspect of personality. For instance, Åmo (2005) and Seibert et al. (2001) claimed that “innovative behavior of an individual is strongly influenced by proactive behavior of the same individual.” Proactive people are said to be more likely to display extra-role behavior. Because innovation coming from individuals can be considered as extra-role behavior, it is expected that employees that show more proactive behavior also engage in more innovative behaviors (Seibert et al., 2001). Several scholars indeed say that there is an intimate connection between aspects of proactive behavior – taking charge, role breadth self-efficacy, proactive personality and personal initiative – and IWB (Åmo, 2005; Hartjes, 2010; Axtell et al., 2000; Bouwhuis, 2008; Farr & Ford, 1990; Seibert et al., 2001). The second determinant of innovative behavior is job factors. According to a variety of researchers, the nature of the job & its characteristics can greatly influence employees’ innovative behavior, especially in terms of job demand (Janssen, 2000; Martin et al., 2007; Hartjes, 2010). Jobs enrichments, when compared with more simple work, are seen as more challenging and thought provoking. Employees’

automatic work behavior is reduced during their daily work and result in more innovative behavior (Janssen, 2000). Another job characteristic that is claimed to improve the level of IWB is role orientation (Hartjes, 2010; Axtell et al., 2000; Dorenbosch et al., 2005). There exist two types of role orientation: production ownership and importance of production knowledge. The more people feel concern, the more innovative their individual behavior. This can be easily put down that employees will be more likely to come up with a solution for the problem they care about. Additionally, each person has to be aware of the significance of the possession of a broad range of skills, knowledge and behavior for the result of outstanding performance. When employees don’t have the ability to see their own capabilities, they neither are able to innovate (Parker et al., 1997). The third factor that determines individual innovation is team factors. Despite the fact that new ideas can be produced & generated individually, they are never promoted & pushed forward by one man effort. Individuals when put in the context of an organization have to rely on colleagues in order to innovate. As a result, the innovative behavior of employees is at least partly determined by the level of interaction with peers. (De Jong, 2007). Specifically, an employee can fall under great influence by the nature of the job or/and team members. Therefore, Axtell et al. (2000; 2006) carried out a study on the effect of team climate, team method control, team role breadth, team support and team leader support on the innovative behaviors of individuals. It showed that high team control and role breadth have a correlation with higher levels of innovative behavior by employees. In addition, team support, team climate and team leader support were described to



significantly affect individual innovation. The fourth group of factors that is likely to influence the innovative behavior of employees includes relationship factors in the wider organization. Leadership is the main subject of study by most scholars and managers in this field of research, because management of businesses is curious when it comes to the question how they can trigger the potential of innovation out of their employees. Prior research in this field focused mainly on the effect of leadership style on innovative behaviors by individuals. Participative, supportive, transformational, transactional and influence-based leadership all are proposed to have a strong impact on individual innovation (Axtell et al., 2000; Pieterse et al., 2010; Janssen, 2005; Krause, 2004; Stoffers & Heijden, 2009; Scott & Bruce, 1994; 1998). Another related relationship that is researched by leader-member exchange (LMX) theory is leader-follower relationship within the organization. This theory argues that this relationship improves with time, with leader-member exchange getting higher. When the quality of the relationship between a manager and an employee is improved, the inferior are more likely to demonstrate innovative behavior. This positive effect of LMX on individual innovation is confirmed by various scholars, such as Stoffers and Heijden (2009) and Scott and Bruce (1994). The last group of factors that is considered to have an effect on employees' innovative behavior includes organizational characteristics (especially organizational climate) and strategy, which are given a great deal of attention in this field of research. Both characteristics concentrated on the employees' perception of how far an organizational is willing to take to encourage innovation among the workplace. For instance, the explanation of organizational climate by Isaken et al. (1999) stresses

heavily employee perception. The authors define the climate of an organization as "the frequent patterns of behaviors, attitudes and feelings which are displayed in the daily environment of the organization and how individuals within the organization experience and understand it". Whereas, an innovative strategy can be regarded as "means for increasing the perception of the extent to which an organization encourages innovation" (Åmo & Kolvereid, 2005). It is a popular controversy among researchers that both factors have a positive impact on individual innovation. As an example, Hartjes (2010) and Scott and Bruce (1994) suggest that employees of an organization who perceive their organization to have a climate in which innovation is supported, perform higher levels of innovative behavior. Likewise, employees of an organization that possess an innovative or corporate entrepreneurship strategy, have a higher likelihood to engage in individual innovation (Åmo & Kolvereid, 2005; De Jong 2005).

Being considered as an extra-role or discretionary behavior, IWB goes beyond prescribed role expectations in a way that it is not explicitly expected behavior of employees (Janssen, 2000). Moreover, the compensation system only takes prescribed behaviors into consideration (Janssen, 2000; Ramamoorthy, Flood, Slattery and Sardesai, 2005). It is believed that employees shape the innovative capacity of an organization through their intelligence, imagination, and creativity, and thus certain HR practices are supposed to identify, develop, evaluate, and reward IWB (Ramamoorthy et al., 2005; Veenendaal & Bondarouk, 2015).

### ***2.7. Work-role performance***

Work role is the entire set of performance responsibilities accredited with an individual's employment. It can be classified into three types, individual task behaviors

(behavior contributes to individual effectiveness), team member behavior (behavior contributes to team effectiveness instead of individual effectiveness) and organization member behavior (behavior contributes to organization effectiveness instead of individual and team effectiveness)

It can also be classified into three key areas, proficiency (fulfills the prescribed or predictable requirements of the role), adaption (coping with and responding to support changes), and proactivity (initiation of changes, latitude and future-directed)

Individual task proficiency ensures core tasks are completed properly; team member proficiency coordinates work with team members; and organization member proficiency represent talks about the organization in positive ways. Individual task adaption adjusts to new equipment, processes, or procedures in core task, team member adaption responds constructively to team changes and organization member adaption addresses change in the manner the organization functions (Griffin et al., 2007)

Previous works describe an individual as an agent for change, development and adaption in a continuous manner towards achieving self-organizing, proactive, self-regulating, and self-reflecting (Bandura, 2005). This study associates employees' IWB with work performance from an employee's viewpoint for some reasons. Firstly, studies on WRP and IWB have a tendency to target at validation of its constructs (Neal et al., 2012). Next, few studies have researched about the relationship between innovative behavior and work performance from an empirical perspective (cited by Leong and Rasli, 2013). Other studies also suggest that because human behavior could be determined based on the expected outcomes of the behavior, IWB could be also determined by the outcomes expectations such as

performance (Yuan and Woodman, 2010). Thus, the following is hypothesized:

*H6: Innovative Work Behavior positively influences Work Role Performance*

### **3. Research methodology**

#### **3.1. Questionnaire developed**

Quantitative and qualitative research are used in this study. Questionnaires are built using primary qualitative and secondary qualitative research, on the foundation of dimensions inherited from previous studies and the interview with experts. The Likert scales from 1 to 5 is utilized to measure the concepts of Compensation System, Training and Development, Sharing Information, Supervisory Support, Innovative Environment, Innovative Work Behavior and Work Role Performance. The level of agreement is summarized in Table 1. Quantitative research is applied through analyzing data using IBM SPSS. The survey was conducted from August 2019 to October 2019. The survey respondents are employees of Viettel Military Industry and Telecoms Group. The questionnaire needs to be carefully developed, by following theoretical reference procedure before building draft questionnaires, and adjusting draft questionnaires after preliminary interviews. The final outcome must be an official questionnaire that could gain confidence in the survey results.

After referring to both international and domestic researches and studies, the group of authors built a draft questionnaire that will be sent to 18 employees of Viettel Group at different positions, ranging from staff to manager level of departments and centers. They are asked to discuss and comment on the questionnaire, following the content below:

- 1) Content of the question,
- 2) How questions are raised,

3) Factors affecting Innovative work behavior and the impact of Innovative work behavior on Work Role Performance.

The surveys will be conducted through online interviews. The authors will organize online group meeting to discuss with these Viettel staff. Meanwhile, the author will also be collecting theory on the impact of Innovative work behavior on Work Role Performance for further reference to get the final scale. After the trial survey, generally,

Table 1.

*Dimensions and Items used in questionnaire*

<b>Dimensions</b>	<b>Item</b>
<b>Compensation system (CS)</b>	Organization's compensation system equitably rewards your efforts (CS1)
	Incentive compensation schemes are provided to you on a regular basis (CS2)
	Compensation benchmarks are updated from current market trends (CS3)
	You receive benefits for your contribution to organizations (CS4)
<b>Training and development (TD)</b>	You acquire and foster relevant skills while working there (TD1)
	Organizational training and development programs are ably designed (TD2)
	Training methods are modern and professional (TD3)
	Training and development program acculturate you with the culture of organizations (TD4)
	Training and development program is effectual and help you (TD5)
<b>Sharing information (SI)</b>	Management is willing to render information explicit to you (SI1)
	Your colleagues are not hesitant to keep you updated with new information (SI2)
	You are conveyed with the goal of your organizations (SI3)
	You and your colleagues possess mutual understanding of one another (SI4)
<b>Supportive supervision (SS)</b>	Your supervisors support your work (SS1)
	Your supervisors encourage you at your difficult time (SS2)
	Your supervisors send you frequent constructive feedbacks (SS3)
	Your supervisors provide you with opportunities for proposing ideas (SS4)
<b>Innovative environment (IE)</b>	Your working environment support the development of new ideas (IE1)
	Your working environment promote individual autonomy (IE2)
	Your innovative ideas are appreciated (IE3)
	You perceive that your job is challenging but engrossing (IE4)
	Uncertainty or ambiguity is advocated and tolerated in your organization (IE5)
<b>Innovative work behavior (IWB)</b>	You are willing to provide ideas for your organizations (IWB1)
	You realize your ideas by applying them in your firms (IWB2)
	You are inclined to provide solutions for unsatisfied needs of your organizations (IWB3)
	You can discern problems in your organizations (IWB4)
	Your proposed remedies are original (IWB5)
<b>Work role performance (WRP)</b>	You can meet your work requirements (WRP1)
	You are able to perform within or outside your work role (WRP2)
	You can adapt to changes in work systems or roles (WRP3)
	You are proactive at your work (WRP4)

Source: Author's summary, 2019

all respondents gave answers to the questions given. Receiving the feedbacks of all respondents, the puzzling or misleading questions have been noted and edited by the authors so as to provide a clearer version of the official questionnaire.

The official questionnaire was sent to 450 Viettel employees both offline and online via email to facilitate the answering process of respondents and 380 questionnaires were received.

### 3.2. Research model

Based on hypotheses stated, the conceptual framework is proposed in Figure 1

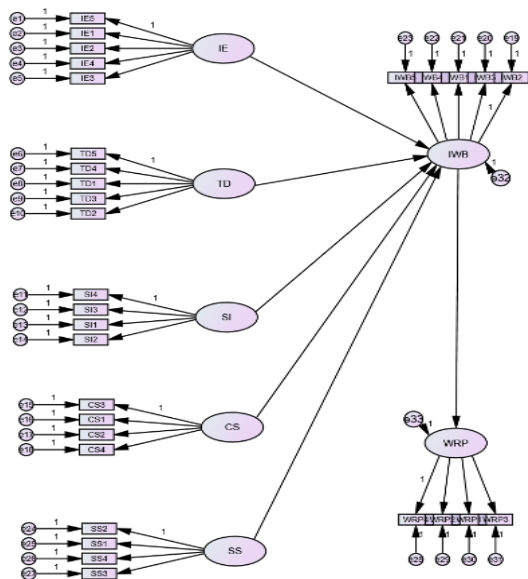


Figure 1. Proposed research model

### 3.3. Data collection and Sampling

The use of convenience sampling (non-probability sampling) is used for the reason that the data are collected by conveniently administering surveys to employees currently working in Viettel Group. Random employees received an email with an attached survey and cover letter to guarantee confidentiality as well as explain the procedure for the questionnaires. Moreover, non-probability sampling is more pertinent to this study as it is herculean to measure the size of the population. After diminishing invalid answers, there are 380 responses used for research purpose. The respondents constitute 172 (45.3%) female staffs and 208 (54.7 %) male counterparts.

## 4. Data analysis

### 4.1. Data analysis procedures

The research utilized quantitative data analysis offered by IBM SPSS and IBM AMOS software, in which Reliability

Analysis will be deployed to test internal consistency, Exploratory Factor Analysis (EFA) to identify relationships among observed variables, Confirmatory Factor Analysis (CFA) to evaluate Measurement model's unidimensionality, construct validity and indices of good fit, and Structural Equation Modelling (SEM) to accept or reject hypotheses.

### 4.2. Reliability analysis

Table 2.

Reliability analysis using Cronbach's Alpha coefficients

Observed variables	Corrected Item-Total Correlation	Cronbach's Alpha
<b>Compensation System</b>		
CS1	.830	.911
CS2	.791	
CS3	.841	
CS4	.740	
<b>Training and Development</b>		
TD1	.698	.881
TD2	.685	
TD3	.684	
TD4	.752	
TD5	.754	
<b>Sharing Information</b>		
SI1	.798	.913
SI2	.807	
SI3	.791	
SI4	.818	
<b>Supervisory Support</b>		
SS1	.808	.909
SS2	.818	
SS3	.706	
SS4	.846	
<b>Innovative Environment</b>		
IE1	.808	.925
IE2	.824	
IE3	.785	
IE4	.767	
IE5	.835	

<i>Innovative Work Behavior</i>		
IWB1	.653	
IWB2	.794	
IWB3	.719	.870
IWB4	.694	
IWB5	.616	
<i>Work Role Performance</i>		
WRP1	.686	
WRP2	.750	.869
WRP3	.666	
WRP4	.788	

Source: IBM SPSS output, 2019

Since the questionnaire was newly created by the authors based on the researches of HR practice-related key drivers and its impacts on work role performance, all scales in the questionnaire are tested for reliability through Cronbach's Alpha coefficient analysis. This coefficient is used to statistically test how closely the questions in the scale correlate with each other, in order to eliminate inconsistent variables and scales. If the Cronbach's Alpha is from 0.8 up to nearly 1, the scale is good; and if it is from 0.6 to nearly 0.8, the scale is usable (Nunnally, 1978 and Zikmund, 2010). Results reveal that all factors are reliable (table2). It can be seen that all Cronbach's Alpha scale reliability statistics are greater than 0.6 and all Corrected Item – Total Correlation of each dimension is greater than 0.3 at the same time, suggesting these dimensions be accepted (Nunally, 1978; Peterson, 1994). Therefore, these observed variables and scales meet the requirements for reliability. All Cronbach's Alpha coefficients are in the interval of (0.8; 0.95), indicating great internal consistency (Dinh and To, 2017). Therefore, all dimensions presenting in the above table will be taken to EFA phase.

### 4.3. Exploratory Factor Analysis

The results from Table 3 shows that KMO measure of sampling adequacy is 0.914, conforming to the prerequisite to do EFA stated by Hair et al. (2006) that when  $0.5 < KMO < 1$ , a sample is adequate to proceed with Factor Analysis. Hair et al. (2006) further required that the Significance of Bartlett's Test of Sphericity is equal or less than 0.05 so as to accept alternative hypothesis  $H_a$ : There may be statistically significant interrelationship between variables. The significance of KMO of 0.000 satisfied that condition.

From Table 4, it can be seen that seven factors are extracted, with the value of Total Initial Eigenvalue of greater than 1 and cumulative percentage of variance of 67.555%, which is greater than 50%, hence; satisfying the requirements given by Gerbing and Anderson (1988). These extracted seven factors account for 67.555% of the variability in variables.

The results of EFA analysis for the independent variables of the pattern matrix figures out that the factor of observed variables satisfies the condition when factor loading is greater than 0.3 and there are 7 factors with 27 observed variables which are generated by factor analysis.

Table 3.

#### *KMO and Bartlett's Test*

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.914
Bartlett's Test of Sphericity	Approx. Chi-Square	8051.254
	df	465
	Sig.	0.000

Source: IBM SPSS output, 2019

Table 4.

*Total Variance Explained*

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings <sup>a</sup>
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	9.999	32.255	32.255	9.685	31.241	31.241	6.495
2	3.669	11.837	44.092	3.347	10.798	42.040	4.550
3	2.401	7.746	51.838	2.123	6.849	48.889	4.445
4	2.213	7.137	58.975	1.875	6.049	54.939	5.793
5	2.018	6.509	65.484	1.709	5.514	60.453	6.112
6	1.621	5.230	70.714	1.296	4.180	64.633	6.130
7	1.187	3.830	74.544	.906	2.922	67.555	5.571
8	.586	1.890	76.434				

Source: IBM SPSS output, 2019

Table 5.

*Pattern Matrix<sup>a</sup>*

	Factor						
	1	2	3	4	5	6	7
IE5	.926						
IE1	.849						
IE2	.815						
IE4	.806						
IE3	.798						
TD5		.837					
TD4		.834					
TD1		.747					
TD3		.729					
TD2		.717					
SI4			.883				
SI3			.844				
SI1			.843				
SI2			.835				
CS3				.911			
CS1				.903			
CS2				.816			
CS4				.753			
IWB2					.935		
IWB3					.804		
IWB1					.721		
IWB4					.666		
IWB5					.584		
SS2						.889	
SS1						.888	
SS4						.869	
SS3						.693	
WRP4							.962
WRP2							.837
WRP1							.659
WRP3							.617

Source: IBM SPSS output, 2019

**4.4. Confirmatory Factor Analysis**

The main purpose of Confirmatory Factor Analysis is to estimate each item in the proposed model which produce a predicted variance-covariance matrix resembling as much as possible the sample variance-covariance matrix (Singh, 2017). To achieve that, with the sample size of 380 respondents and continuous scales of observed variables, maximum likelihood method is optimal for the purpose of finding the parameter values that make the observed data most reproducible. In other words, it maximizes the likelihood of the provided parameters.

Before presenting the inter-relationship among latent variables in a structural model, it is necessary for researchers to implement CFA for all latent constructs. Nevertheless, unidimensionality test should be conducted prior to evaluating the model validity and model fit (Awang, 2012).

Unidimensionality is obtained as all factor loadings from each latent construct to its respective items are positive and higher than 0.6. In fact, the lowest extraction belongs to IWB-IWB5 at 0.67, the requirements being satisfied.

Construct validity comprises convergent validity and discriminant validity. Convergent validity is achieved when Average Variance Extracted (AVE) is higher than 0.5 and Composite Reliability (CR) is higher than AVE. Discriminant validity is attained when MSV is higher lower than AVE. From Table 6, it can be seen that all MSV values are lower than those of AVE.

Indices of model fit are all achieved as can be observed from Table 7. The model fits possess recommended cut off point and all indexes did satisfactorily pass these critical points.

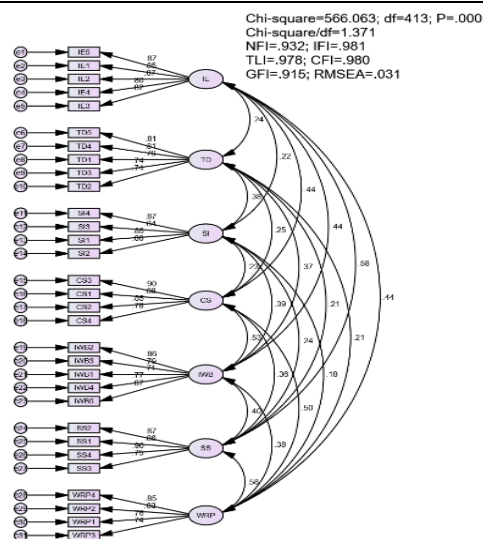


Figure 2. Measurement Model with Standardized Estimates  
 Source: AMOS output, 2019

Table 6.  
 Convergent and Divergent validity of constructs

Standardized Regression Weights				Convergent Validity		Discriminant Validity
			Estimate	AVE	CR	MSV
IE5	<-	IE	0.869	0.712	0.925	0.3364
IE1	<-	IE	0.852			
IE2	<-	IE	0.873			
IE4	<-	IE	0.799			
IE3	<-	IE	0.825			
TD5	<-	TD	0.812	0.598	0.881	0.1444
TD4	<-	TD	0.807			
TD1	<-	TD	0.758			
TD3	<-	TD	0.743			
TD2	<-	TD	0.743			
SI4	<-	SI	0.867	0.727	0.914	0.1521
SI3	<-	SI	0.836			
SI1	<-	SI	0.846			
SI2	<-	SI	0.86			
CS3	<-	CS	0.896	0.727	0.914	0.2809
CS1	<-	CS	0.882			
CS2	<-	CS	0.847			
CS4	<-	CS	0.781			
IWB2	<-	IWB	0.863	0.58	0.873	0.1936
IWB3	<-	IWB	0.788			
IWB1	<-	IWB	0.707			
IWB4	<-	IWB	0.768			
IWB5	<-	IWB	0.668			
SS2	<-	SS	0.871	0.72	0.911	0.3364
SS1	<-	SS	0.865			
SS4	<-	SS	0.904			
SS3	<-	SS	0.746			
WRP4	<-	WRP	0.852	0.633	0.873	0.3364
WRP2	<-	WRP	0.829			
WRP1	<-	WRP	0.757			
WRP3	<-	WRP	0.739			

Source: AMOS output, 2019

Table 7.

*Indices of model fit in Measurement Model and Structural Model*

Fit index	CFA	SEM
<b>Parasimonious Fit</b>		
Chi-square/df	1.371	1.623
<b>Incremental Fit Indices</b>		
NFI	0.932	0.918
IFI	0.981	0.967
TLI	0.978	0.963
CFI	0.98	0.967
<b>Absolute Fit Indices</b>		
GFI	0.915	0.901
RMSEA	0.031	0.041

Source: Authors' summary and computation from AMOS output, 2019

**5. Research results**

The evaluation of Structural model fit, shown in Table 8, draws a conclusion that the structural model fits observed data. Figure 3 visually presents the relationship among hypothesized latent variables while Table 8 presents it in numeric terms. In general, all hypotheses are accepted, with their p-value (P) being less than 0.05 and critical ratio (C.R.) higher than 1.96. Furthermore, among six relationships, hypothesis H1, H2, H3 and H6 receive critical ratios higher than 2.58, which means that the coefficient is significant at 0.01 level (Garver & Mentzer, 1999; Hair et al., 2006; Kline, 1998; MacCallum, 1996). Overall, acting as an endogenous variable, Compensation System, Training and Development, Sharing Information, Supportive Supervision and

Innovative Environment indicates positive correlation from all of which, with it being influenced most by Compensation System at unstandardized Beta of 0.368. As an exogenous variable, Innovative Work Behavior is, likewise, positively correlated with Work Role Performance at unstandardized Beta of 0.317. As the regression output from the Structural model is expressed in unstandardized coefficient terms, the result can be inferred as when Training and Development increases by 1 unit, Innovative Work Behavior also increases by 0.138 unit. The explanation for the other variables is similar.

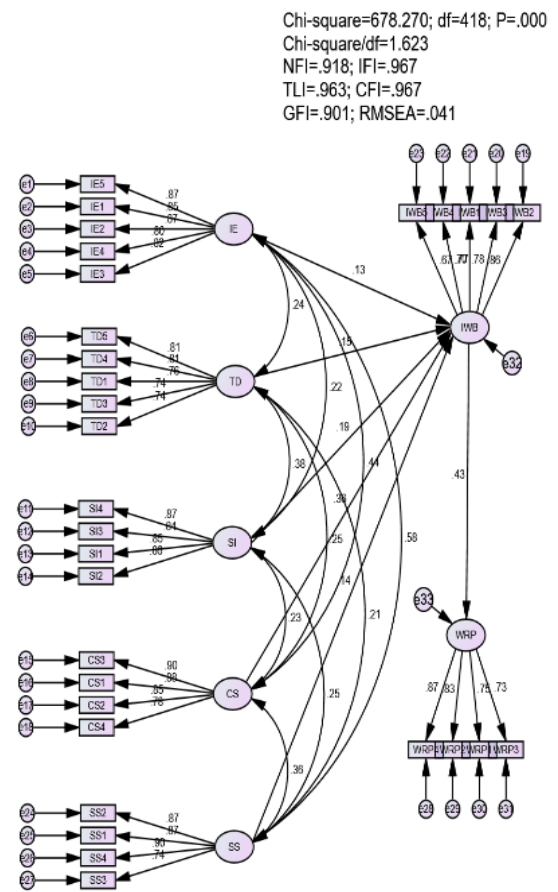


Figure 3: Structural model with Unstandardized Estimates

Source: AMOS output, 2019



Table 8.

*Unstandardized regression weights*

			Estimate	S.E.	C.R.	P	Hypothesis	Conclusion
IWB	<---	CS	0.368	0.055	6.667	***	H1	Accepted
IWB	<---	TD	0.138	0.048	2.886	0.004	H2	Accepted
IWB	<---	SI	0.185	0.050	3.72	***	H3	Accepted
IWB	<---	SS	0.159	0.064	2.478	0.013	H4	Accepted
IWB	<---	IE	0.155	0.070	2.223	0.026	H5	Accepted
WRP	<---	IWB	0.317	0.042	7.573	***	H6	Accepted

Source: AMOS output, 2019

## 6. Discussion and Conclusion

Overall, the five exogenous variables are positively connected with the construct of Innovative Work Behavior, the impact of which on Work-role performance is likewise positive.

From an equitable compensation system, Viettel employees may find their efforts recognized, thereby feeling impelled and enhancing their performance. It is the parity pay, fairness and recognition that provide an employee with a sense of security and a sense of duty. They will be instilled with a belief that the more they strive to innovative and ideate, the more they are appreciated.

Training and development in Viettel hold a paramount position in shaping innovative work behavior. Without solid knowledge and awareness of the direction of the work, there would be no radical changes at work. Training serves to ameliorate employees' misperception and convey a sense of purpose to them while development provides them with a vista of career opportunities.

Sharing information and supervisory support together afford staff a cordial and healthy working environment. The frequent exchange of information and advocacy from seniors will diminish stress and improve mental health of any employees. Further, what they are communicated daily may keep them updated of new issues. Such nascent

problems can be solved if soon notified with employees in Viettel.

Innovative working environment can provide personnel with a congenial innovative environment. If their ideas, and initiatives are heard, supported and funded, they can make a difference with their confidence and latitude. Therefore, an innovative work environment within Viettel Group is essential and necessary for any revolutionary changes.

Innovative work behavior is how an individual utilize their creativity and take initiative in applying ideas into practice. Such application may translate into augmented productivity or efficiency, thus giving rise to enhanced work performance. Innovation is a requisite for a leap in any areas, and a working environment is scarcely an exception.

The key findings in this study can be useful for both employees and management of Viettel Group. Employees can propose initiatives regarding equity in a compensation system or a more "mistake tolerance" environment. These will be conducive and can be a precursor to pro-innovation environment. Managers may use these findings to take critical correction at work, thus rendering an organizational climate more creative.

## 7. Implications and limitations

As literature hardly provides a scintilla of theoretical together with conceptual framework, the research did reveal several majorly perceived catalysts for innovative work behavior, namely compensation system, training and development, sharing information, supervisory support, and innovative environment. These constituents may be employed in any research model in the future with the expected result the same as in this paper as the confirmatory factor analysis indices prove auspicious.

Future research should concentrate not only on these factors aforementioned but also on relationship between subordinates and employers in Viettel Group or on the

personalities of staff as these may correlate with their capability to generate radical ideas. Employers should also make decision on rationalizing a company in consideration of the factors influencing innovative work behavior to establish a workforce of high caliber and efficiency.

The research per se possesses several limitations. The sample is solely 380 individuals and therefore it is rather medium. The technique of data collection is rather plain and does not accommodate the differences among and within demographic groups of respondents. That is, future research should extend the sample and utilize the technique of probability sampling for this subject.

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