

# The Impact of HR Practices and Innovative Work Behavior on Job Performance in Physicians

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# Abstract

The purpose of this study is to examine the mediating role of innovative work behaviour between compensation system, training and development, information sharing, supervisory support, and job performance among physicians in Iraqi public hospitals. The researcher conducted the study via online questionnaire with a sample size of 173 physicians in Iraqi public hospitals. The data analysis was done via SPSS (or commonly known as Statistical Package for the Social Sciences), IBM SPSS Statistics 23 and Structural Equation Modelling (SEM) (PLS). The data analysis meant to conduct demographic profile of respondents and



mean of variables, factor analysis, reliability analysis to measure the repeatability of measuring instrument and regression analysis for hypothesis testing of independent and mediating variables. Results showed that training and development and supervisory support have a positive significant impact on physician's innovative work behaviour. Compensation system and information sharing have a negative impact on physician's innovative work behaviour. Innovative work behaviour mediates the relationship between training and development, supervisory support, and job performance. While compensation system and information sharing were not a significant mediating.

**Keywords:** compensation system, training and development, information sharing, supervisory support, innovative work behaviour, job performance

#### **1. Introduction**

The major focus of this study is on the job performance of physicians working in public hospitals in Iraq as well as the resulting impacts on them. According to Lee et al. (2007) currently the world is well in the know that two crucial elements contributing to the level of a nation's economic improvement, quality, and future are its service sector's accomplishments and essentiality. The Iraqi healthcare sector is a subsection of its service sector, contributing to 9 percent of this country's GDP or, which is approximately 38.91 billion US dollars. From this amount, the government of Iraq has dedicated 4.5 percent of the GDP to affairs regarding the healthcare sector (Central Statistical Organization, 2019). As viewed in the Iraqi statistics, despite a visible decrease in death rates, various challenges have been faced by this country's public hospitals. A number of these obstacles include namely limited entry to public hospitals, replication of related services, unsynchronized healthcare delivery, lack of commitment with respect to advancing satisfactory initiatives, inadequate management of information systems within public hospitals, and lack of accountability (World Health Organization, 2015). This has caused a large number of proficient health workers to immigrate to other nations. Indeed, this trend can be viewed today among young Iraqi graduates. Moreover, the healthcare infrastructure has not seen a complete restoration, in spite of a great amount of advancement elsewhere. Hence, this country's healthcare system is in need of realignment, according to the Iraqi development plans, with a fundamental emphasis on primary healthcare.

Furthermore, the revenue of Iraqi public hospitals has been subject to a reduction between the years 2014 and 2019, falling from a peak of 59.1 billion US dollars in 2014 and reaching a minimum point of 38.6 billion. These two values are equivalent to 10.86 percent and 9 percent of the GDP in this country. Also, after a consistent reduction over three consecutive years (from 2014 to 2017), the revenue had a slight increase in 2018 (Central Statistical Organization, 2019).

Job performance is deemed as a crucial element in a system's advancement, particularly with respect to healthcare services and professions in the field of medicine (Platis et al., 2015). The job performance of healthcare employees consists of punctual initiation of care, evaluation on a daily basis, accessibility, interaction, meaningful descriptions regarding assessments, advice related to one's health, and so on; all of these factors play an important role in the patients' satisfaction (Rahiman & Kodikal, 2017). As such, job performance is



considered to be a vital element within the hospital, indeed so important as to aid in the establishment of novel and innovative estimation and consideration techniques in the last decade (Becton et al., 2012; Ghaith et al., 2018). This is also true for proficient workers who are only recently registered (Platis et al., 2015). Furthermore, with reference to a systematic review of current literature, productivity in the workplace shares a direct and powerful connection with conflict and burnout (Gandi et al., 2011). Likewise, professional performance is severely impacted by both employee leadership (Salanova et al., 2011) and the procedure of rational decision-making (Mohammed et al., 2013). As such, in the healthcare sector, particular attitudes are included in job performance with respect to practice, information, and professionalism; all of these factors contribute immensely to the supply of basic public health services as well as guaranteed quality care for patients (Irvine, 1997; Xi et al., 2017; Hou et al., 2020).

Moreover, innovative work behaviour serves as a behavioural chain, stimulating employees to develop creative thinking which, in turn, leads to improved job performance and relevant procedures (Samma et al., 2020). In this regard, several common behavioural manifestations include the identification of problems in the workplace, suggesting novel and advanced solutions, carrying out ideas, and many more. Nevertheless, there exists a great difference between innovative work behaviours and the innovation of workers that is mainly based on discovering and implementing new ideas (Saeed et al., 2019). However, the focus of creativity lies on the particular procedure of beginning relatively new and drastically better ideas (Lee et al., 2019). Additionally, there is a significantly higher level of purpose and focus associated with innovative work behaviour compared to creativity due to the fact that the former consists of carrying out definition, evaluation, planning, implementation, and appraisal of novel notions and linking them all with the goal of enhancing work-related procedures and the job performance which is achieved as an outcome (Samma et al., 2020).

Furthermore, in spite of the relatively low number of studies related to healthcare, the main focus of literature in HRM is on the production of environments (Saif & Satrawi, 2013). As stated through the systematic literature review of Seeck and Diehl (2017), HR practices play an essential role in innovation. Also, according to Zhou et al. (2013), results related to innovative behaviour are advanced by HR practices since certain practices like job security set up the psychological commitment of workers to their corresponding organizations and make them capable of taking risks (Bos-Nehles & Veenendaal, 2019). In this regard, various challenges have been faced when carrying out practices linked to the area of HR in Iraq; moreover, these challenges have led to great inconveniences connected to the productivity of HR in service-providing organizations, causing a plummeting level of contribution made by the service industry to the GDP of Iraq. These obstacles arise in a large number of domains, including recruitment and selection, training and growth, evaluation of performance, reward-giving systems, and various other types of issues in HR (Dabbas & Muhemmed, 2019).

Considering every existing Iraqi organization, the recruitment and selection process is observed to consist of inadequacy and misplacement. Indeed, service organizations



performing this procedure in Iraq tend to dismiss work-related assessments and descriptions which leads to Iraqi workers' lack of knowledge regarding extant job offers. This occurs also because the majority of organizations in this county consider the process of job evaluation and description as an unimportant responsibility for their personnel administration (Garfield et al., 2003). Furthermore, this phenomenon can be caused by the fact that Iraqi organizations deem job descriptions as merely bureaucratic processes (Budhwar & Mellahi, 2006). On this subject, Al-Zubaidi (2007) has stated that a number of qualities can be used to determine the recruitment and selection procedure carried out by this nation's organizations, namely lack of merit or non-existing systematic process, limited goals, discrimination, bias, and regionalism influenced by interindividual and intermediary relationships among certain individuals. Hence, this causes workers in Iraq to stop being as involved as they need to be with respect to their responsibilities given in their job descriptions due to the existence of such obstacles related to today's competitive market and its rapid advancements and technological trends. Moreover, as a result of this century's technological challenges, different companies need to create an effective system conducting performance appraisal so as to obtain competitive advantage (Al-Zubaidi, 2007). As a consequence of limited attention toward performance appraisal in Iraqi organizations, it becomes difficult for their workers to successfully overcome various challenges of the current century, causing a decrease in their quality of job performance.

Based in the problem statement outline above, the main objectives for this study are as the following:

- I. To examine the relationship between innovative work behaviour and job performance among physicians in Iraqi public hospitals.
- II. To examine the relationship between HR practices (compensation system, training and development, information sharing, supervisory support), and innovative work behaviour among physicians in Iraqi public hospitals.
- III. To examine the mediating role of innovative work behaviour between HR practices (compensation system, training and development, information sharing, supervisory support), and job performance among physicians in Iraqi public hospitals.

This study brings more insight to the area of job performance by describing the impacts of compensation systems, training and development, information sharing, and supervisory support on job performance, with innovative work behaviour as the mediator. Moreover, this study makes reference to professionals on the subject of job performance among employees. Also, through its practical contribution, researchers obtain the capability to determine what kind of influence HR practices have on job performance in the context of physicians working in the public hospitals of Iraq. Furthermore, this study shares extensive information regarding specific corresponding HR practices that serve as most linked to the enhancement of job performance, namely compensation systems, training and development, information sharing, and the supervisory support. This is deemed as advantageous concerning present problems faced by workers related to innovative work behaviour. Aside from that, this study can be important for the public hospitals of Iraq since their corresponding management staff and supervisors can apply its results to create improvements in the job performance of their



workers via long-term techniques. More specifically, this study presents adequate guidelines for HR department in regard to managing their workers using compensation systems, training and development, information sharing, and supervisory support.

Additionally, the main focus of this study lies on Iraqi public hospitals, where it provides concatenation to existing literature through explaining ways in which physicians' perceptions regarding HR practices impacts their innovative work behaviour (Dorenbosch et al., 2005). Considering the fact that the connection between HRM and innovation has been priorly analyzed with respect to innovative organizational results (Bos-Nehles & Veenendaal, 2019), this study introduces a more adequate comprehension regarding the link between HR practices and innovative behaviour in the workplace.

#### 2. Literature Review

#### 2.1 Job Performance

Job performance refers to the quality of obtaining work-related features including making decisions, carrying out tasks with no errors, making a commitment to one's job, completing tasks punctually, successfully reaching one's goals, taking initiatives and responsibility, working jointly with one's coworkers, and cooperating with one's superiors (Chirumbolo & Areni, 2010). As mentioned in several studies, job performance can be deemed as an individual dimension (Borman & Motowidlo, 1993). However, other academics have insisted on the multidimensional characterization of job performance (Conway, 1999). Moreover, employees' performance in the health sector consists of punctual initiation of care, daily evaluations, accessibility, interaction, explanation regarding assessments, advice related to healthcare, and many more; all these features play an important role in patients' satisfaction (Rahiman & Kodikal, 2017). Furthermore, job performance is considered to be an essential element in the hospital, so crucial as to lead to the establishment of novel innovative techniques and consideration in the most recent decade (Becton et al., 2012; Ghaith et al., 2018), even so for professionals who have been only recently registered (Platis et al., 2015).

In addition, job performance can serve as the total expected value of specifically arranged and varied incidents of behaviour phenomenon that a person expresses over a certain period of time (Motowidlo & Kell, 2012). Bureaucratic stress and its corresponding influences on the motivation and job performance of employees are impacted by various factors, namely job titles, occupation, responsibilities, and the corresponding locations of a company ordered by their ranks (Bjaalid et al., 2019). On the other hand, a number of academics deem job performance as a comprehensive value related to arranging employees' behavioural collection which directly and indirectly caters to an organization's objectives (Borman & Motowidlo, 1993). Considering the various types of behaviour that contribute to an organization's goals, job performance is well-known as a construct including distinct elements in the corresponding literature (e.g., Rotundo & Sackett 2002).

#### 2.2 Innovative Work Behaviour

In this study, innovative work behaviour refers to the purposeful production, introduction, and implementation of new ideas limited to an individual's job or their work team or



respective organization, all with the objective of reaching success and improvement in their personal job performance or the total job performance of their work team or organization (Janssen, 2000). Based on the consensus of many academics and practitioners, employees' innovation is a means of stimulating success in companies (e.g., Smith, 2002). As such, innovative work behaviour can be sensibly defined as an individual's aimful behaviour toward estimating and implementing contemporary and practical notions clearly intended for benefiting the particular employee or the related groups and organizations. Hence, this characterization points out that innovative work behaviour includes a large number of elements other than innovation itself. Moreover, many outcomes can occur as a result of innovation, namely widespread and rehabilitated products, services, and particular procedures as well as the evaluation of newly generated techniques linked to production and management systems (Crossan & Apaydin, 2010).

Nevertheless, there exists a great difference between innovative work behaviour and the innovation of employees, the former referring more to their finding and producing novel ideas (Saeed et al., 2019). However, innovation is mainly defined as beginning relatively new and improved ideas (Lee et al., 2019). Furthermore, innovative work behaviour is deemed to be more resolute and focused than innovation due to consisting of the definition, evaluation, planning, implementation, and review of novel notions as well as linking them to work-related advancements and performance as an outcome (Samma et al., 2020). In the works of Kanter (1988), West and Farr (1989), and Scott and Bruce (1994), in order to build innovative work behaviour, three dimensions were assessed, namely the generation, improvement, and understanding of ideas. In this regard, these three dimensions are connected to new ideas as solutions for difficult issues, support for help with innovative ideas, and transforming innovative ideas to advantageous usages respectively. Therefore, one can gain an improved viewpoint on innovative work behaviour, compared with previously presented models including one-dimensional, two-dimensional, and three-dimensional models introduced by Janssen (2000), Krause (2004), Dorenbosch et al. (2005), and Reuvers et al. (2008) respectively.

# 2.3 Compensation System

A compensation system serves as a single bonus or incentive payments combined with ranks connected to decentralization, cooperation of workers, overall training, improvement of skills, social activities, due processes, high wages, and benefits stemming from the commitment of employee with respect to HR systems (Boselie et al., 2001). Moreover, the concept of compensation is what workers gain in exchange for their participation in the services of their organizations. With the adequate management, compensation aids companies to reach their objectives as well as obtain, maintain, and seek their employees in a satisfactory manner (Gustian et al., 2017). Furthermore, compensation consists of two aspects, the first one being direct payments via wages, salaries, incentives, commissions, and bonuses; the second aspect refers to indirect payments through financial benefits, namely insurance and vacation opportunities paid for by the company (Astuti, 2021). Also, in addition to working in a group and the workplace, compensation serves as one of the elements impacting the motivation of workers in an organization (James et al., 2009).

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In this study, a preliminary study was carried out based on the survey results, which hinted an inadequate psychological working environment, including work relationships, between employees and their superiors. As such, compensation in Iraqi hospitals does not match their work as hospitals deprive their workers of promotion opportunities. Also, work pressure caused by superiors causes discomfort in their subordinates. Thus, a lack of conducive work environment was observed. On this subject, employees believe that their hospital does not motivate them as they receive no rewards due to good performance, leading to their demotivation. Moreover, the compensation that the workers gain is inadequate and, according to them, not matching the work they do. In regard to working in a group, a gap continues to exist among the medical staff as well as within interactions between the medical and non-medical personnel. As an outcome, detrimental mistakes occur for the patients and also the hospital.

# 2.4 Training and Development

"Training" refers to a systematic method of learning and improving with the objective of raising work-related effectiveness in employees and corresponding teams and organizations (Goldstein & Ford, 2002). Moreover, training has an essential role due to providing workers with novel proficiencies and knowledge which leads to enhancements in their work-related innovation (Shalley & Gilson, 2004). As such, respective information and proficiencies can be obtained by employees convinced to participate in external training away from their organizations or those who decide to join higher educational programs which, in turn, leads to advancements in the workplace (Jiang et al., 2012). These acquired skills make employees more aware of the various ways in which they can use their creativity and test new ideas more comfortably (Shalley & Gilson, 2004; Veenendaal & Bondarou, 2015). On this subject, a number of these notions provide empirical evidence which supports the fact that education and development play an important role in causing improvements in job performance and innovative performance in the workplace (Birdi et al., 2012; Boselie et al., 2001).

In particular, educational and development programs strive to generate novel information and skill sets and, hence, transform employees' proficiencies to more modern patterns capable of being up-to-date with the current requirements (Battistelli et al., 2019; Stankevičiūtė et al., 2020). Furthermore, according to Elnaga and Imran (2013), activities linked to training and development give employees the opportunity to gain novel knowledge, skills, and professional advancements. Moreover, particular emphasis was given to organizations' need to make training and development programs available to their employees with the goal of improving their potential to perform their tasks in a more efficient manner. Also, as stated by Zehra (2016), training and development programs play an important role as they enable workers to gain overall knowledge on how to use or implement new techniques.

# 2.5 Information Sharing

Information sharing serves as one of the four fundamental types of activities linked to higher levels of job performance. In addition, the information sharing is deemed as how a company spreads information among its employees in regard to policies as well as its relationship with the overall settings and objectives (Battistelli et al., 2019; Boselie et al., 2001; Pfeffer, 2005).



Therefore, information sharing can be considered as an HRM practice among personnel consisting of information sharing connected to work-related proficiencies, which aids them in problem solving and generating novel ideas (Carmeli et al., 2013; Wang & Noe, 2010).

Additionally, information sharing leads to improvements in problem solving since employees become enabled to comprehend their challenges effectively before facing them and, therefore, assess many solutions for their future problems. Other than that, there exists a link between an organization's work settings and information sharing. Based on the study of Barsade (2002), team members can share their common emotions regarding the work settings using a process with emotional transmittance; moreover, cooperation and efficiency can be improved by reaching a satisfactory emotional contagion with other team members. As such, by fairly sharing information with other employees, one can establish better interindividual relationships and create a more prosperous work setting as well as more enthusiasm about reaching higher efficiency in performance (Cui, 2017).

In addition, the influence of information sharing on job performance has been emphasized in a number of empirical studies (Huo et al., 2016; Swink et al., 2007; Wiengarten et al., 2014). However, no conclusive empirical evidence has been found in existing literature since the evidence of a positive effect of information sharing on job performance has been shown in a few studies (Garridomoreno et al., 2015; Qi et al., 2017), whereas a negative impact was reported in several other studies (Huo et al., 2016; Wiengarten et al., 2014). Aside from that, in a number of studies, information sharing, and job performance are deemed to share a U-shaped non-linear relationship (Terjesen et al., 2012; Zhao et al., 2013) while this relationship was found to be insignificant in other works of study (Martinkenaite, 2011; Ralston et al., 2015).

#### 2.6 Supervisory Support

A supervisory support can be defined as a person showing concern for the feelings and needs of their staff, encouraging them to express their concerns, and providing them with positive and extremely informative feedback (Oldham & Cummings, 1996). On this subject, the support of supervisors becomes a formidable means of improving employees' behaviours, attitudes, transfer of knowledge, and job performance (Nijman et al., 2006; Park et al., 2017). In addition, supervisory support directly or indirectly impacts transfer outcomes through the motivation of employees being trained to transfer various elements in the transfer settings (e.g., Cromwell & Kolb, 2002). It can be also expressed as employees' perception regarding how their supervisors appreciate their contributions and look after their health (Kottke & Sharafinski, 1988). Based on the social exchange theory, employees tend to show behaviours beneficial to their supervisors if the superiors provide them with adequate support. Aside from that, the support of co-workers acts as an essential mechanism advancing work settings and decreasing employees' tensions (Sloan, 2012). Hence, less stressed workers obtain higher job satisfaction, job performance, and intention to keep working for their organization (Afzal et al., 2019; Otsuka et al., 2007).



#### **3. Research Theoretical Framework**

The Research Theoretical Framework shown in Figure 1 was formulated based on the research gap and the underpinning theory called Social Exchange Theory. The focus of the study is to assess the impact of HR practices on job performance via the mediating role innovative work behaviour. Thus, this study theoretical framework used involves four independent variables, one mediate and one dependent variable. Factors studied as follows; Independent Variable (IV): compensation system, training and development, information sharing and supervisory support, Dependent Variable (DV): Job performance and Mediate Variable (MV): innovative work behaviour.



Figure 1. Theoretical Framework

# 4. Hypothesis Development

Based on the above research theoretical framework, the following hypothesis were-generated.

# 4.1 Direct Hypothesis

The direct hypothesis focuses on compensation system, training and development, information sharing and supervisory support impact on innovative work behaviour. Also, innovative work behaviour impact on job performance. The hypothesis development is created according to several studies. Namely, a study conducted by Bos-Nehles and Veenendaal (2019), indicates that there is a significant relationship between compensation system and innovative work behaviour. This too, supported by another study conducted on the relationship between training and development and innovative work behaviour (Pratoom & Savatsomboon, 2012). Where result indicate that information sharing has a significant positive relationship with innovative work behaviour (Battistelli et al., 2019). While supervisory support too influenced and positively significant towards innovative work behaviour (Bos-Nehles & Veenendaal, 2019). Also, study conducted by Van Zyl et al, (2019), found that innovative work behaviour has a positive relationship with job performance.

H1: Innovative Work Behaviour has positively significant influences on Job Performance.

H2: Compensation system has positively significant influences on Innovative Work Behaviour.



H3: Training and Development has positively significant influences on Innovative Work Behaviour.

H4: Information Sharing has positively significant influences on Innovative Work Behaviour. H5: Supervisory Support has positively significant influences on Innovative Work Behaviour.

# 4.2 Indirect Hypothesis

The indirect hypothesis focuses on mediate variables impact on relationship between compensation system, training and development, information sharing, supervisory support styles and job performance.

H6: Innovative work behaviour mediate the relationship between training and development and job performance.

H7: Innovative work behaviour mediate the relationship between compensation system and job performance.

H8: Innovative work behaviour mediate the relationship between information sharing m and job performance.

H9: Innovative work behaviour mediate the relationship between supervisory support and job performance.

#### 5. Research Methodology

As illustrated in Table 1, this study serves as a descriptive evaluation which utilizes quantitative techniques in order to assess the corresponding research questions and achieve the specified research goals. Moreover, the focus of the descriptive research lies on the use of the average, frequency, and mean of the data (Loganathan, 2013). Also, the goal of the correlation research carried out to evaluate the hypotheses is to examine the corresponding influences of variables such as compensation systems, training and development, information sharing, supervisory support, and innovative work behaviour with respect to the job performance of physicians working in the public hospitals of Iraq. As such, a cross sectional approach has been utilized in a descriptive and analytical manner due to this study being a one-time study through which the research goals can be reached, and further insights can be given for future studies (Kanchanaraksa, 2008). Also, the measurement instrument is in the form of a structured questionnaire with questions completely derived from previous literature. Furthermore, the study data was gathered using an online survey using variable measurement via the five-point Likert scale. Also, Section I being HR practices (compensation system, training and development, information sharing, and supervisory support) (Independent Variable) is derived from the study of Boselie et al (2001), consisting of 25 items. These items include compensation systems (3 items), training and development (3 items), information sharing (6 items), and supervisory support (13 items). Moreover, Section II being innovative work behaviour (Mediating Variable) is taken from the study of Janssen (2000) with three items referring to idea generation, three items to idea promotion, and three items to idea realization. Section III being Job Performance (Dependent Variable) includes 11 items taken from the study of Chirumbolo and Areni, (2010), Abramis (1994) (see also De Cuyper & De Witte, 2006), and Chirumbolo and Areni (2010). In addition, this study's unit of analysis and sampling frame include focusing on the population at an individual level, with



the target population being physicians working in public hospitals in Baghdad, Iraq. Aside from that, judgment sampling serves as the only alternative for this type of population as the focus of non-probability sampling is on respondents who are easily available. Also, a variety of public hospitals were considered in Baghdad, Iraq, leading to finding 173 respondents. Furthermore, data analysis was performed using SPSS (Statistical Package for the Social Sciences), IBM SPSS Statistics 23. Hence, the respondents' demographic profiles were examined, and their descriptive analysis took place. Moreover, Structural Equation Modelling (SEM) (PLS) was employed for hypothesis assessment, regression, and, thus, factor analysis with the goal of evaluating the data quality. Also, reliability analysis was carried out in order to measure the repeatability of measuring instrument based on the value of Cronbach's alpha, where the acceptable range was deemed from 0.7 (minimum cut-off) to 0.9 (Golafshani, 2003).

Study Dimension	Details of Study
Purpose of study	Hypothesis testing
Type of investigation	Correlational
Unit of analysis	Individual
Time horizon	One-shot, Cross-sectional study
Data collection method	Online survey

 Table1. Research Design Summary

#### 6. Findings

The findings section describes on Demographics Profile of Respondents, Descriptive analysis of Mean of the variables, Factor Analysis, Reliability Analysis and Regression Analysis that is needed to achieve the research objectives.

# 6.1 Demographics Profile of Respondents

The demographics profile of all respondents is shown in Table 2. In terms of gender, there were 89 (51.4 per cent) male respondents compared to 84 (48.6 per cent) female respondents. All respondents were physicians between 30 and 34 years of age, 32 years (11 per cent), 35 to 39 years, 39 (17.9 per cent), 40 to 44 years, 40 (41 per cent) and 44 more than years, 55 (23.1 per cent). Most were married with 97 (56.1 per cent). Most have a high level of education with master's degree 91 (52.6 per cent), and bachelor's degree 45 (26 per cent), and have working experience 10 to 13 years (41 per cent) and more than 13 years (23.1 per cent) in the current hospital.

Variable	Categories	Frequency	Percentage%
Gender	Male	89	51.4%
	Female	84	48.6%
Age	20-24	5	2.9%
	25-29	7	4%

# Table 2. Demographics Profile of Respondents (N=173)



	30- 34	19	11%
	35- 39	31	17.9%
	40- 44	71	41%
	> 40	40	23.1%
Marital Status	Married	97	56.1%
	Single	66	38.2%
	Widower	6	3.5%
	Divorced	4	2.3%
Level of Education	Doctorate degree	37	21.4%
	Master's degree	91	52.6%
	Bachelor's degree	45	26%
Year of experience in	<1	5	2.9%
the current hospital	1 to 3	7	4%
	4 to 6	19	11%
	7 to 9	31	17.9%
	10 to 13	71	41%
	> 13	40	23.1%

# 6.2 Descriptive Analysis

The descriptive statistics consists of 173 valid responses, where all six variables' ratings range from minimum 1.0 (least favourable) to maximum 5.0 (most favourable). Among the four independents variables, supervisory support has the highest mean 4.4, with standard deviation 0.4, as compared to information sharing, training and development and compensation system. Following by the mediating innovative work behaviour with 4.3 mean and standard deviation 0.4. Dependent variable, job performance however has the 4.4 mean and standard deviation 0.4.

Construct	Ν	Minimum	Maximum	Mean	Std.
					Deviation
Job Performance	173	1	5	4.403	0.425
Innovative Work	173	1	5	4.322	0.405
Behaviour					
Compensation System	173	1	5	3.755	1.058
Training and Development	173	1	5	4.312	0.459
Information Sharing	173	1	5	4.319	0.408
Supervisory Support	173	1	5	4.367	0.413



# 6.3 Reliability Analysis

Different acceptance levels have been recommended by various studies. For instance, internal consistency is proposed by Nunnally (1978) to be an alpha value exceeding 0.70. Also, an acceptance standard of 0.80 is suggested in the study of Carmines and Zeller (1979). In spite of these distinct viewpoints regarding the acceptance level, a generally acceptable value to indicate internal consistency is 0.70 and above, which is considered as a benchmark (Hair et al., 2014; Nunnally & Bernstein, 1994). As such, Table 4 shows the different loadings with respect to the reliability test along with each construct's number of items. Hence, this study's values of composite reliability exceed 0.70, as proposed by Hair et al. (2014). Moreover, Table 4 lists the value of Cronbach's Alpha for all variables.

Construct	AVE	CR	Roh-a	Cronbach	No. of items
				's	
				Alpha	
Job Performance	0.736	0.968	0.969	0.964	11
Innovative Work	0.696	0.953	0.953	0.944	9
Behaviour					
Compensation System	0.972	0.991	0.991	0.986	3
<b>Training and Development</b>	0.829	0.936	0.919	0.898	3
Information Sharing	0.680	0.927	0.983	0.906	6
Supervisory Support	0.786	0.978	0.980	0.974	13

Table 4. Reliability Analysis

# 6.4 Regression Analysis

Based on factor analysis and reliability analysis carried out, these data are fit to run regression analysis to test the hypotheses. The regression analysis is as below.

# 6.4.1 Direct Relationship

The focus of the evaluation lies on estimating the independent variables' influence on compensation systems, training and development, information sharing, and supervisory support, with the mediating variable being innovative work behaviour, as well as for the connection between innovative work behaviour and job performance. As for this relationship, the bootstrapping procedure is carried out to test the significance of the path coefficients. Also, toward pinpointing the path coefficients' significance, a non-parametric bootstrapping technique was utilized to calculate the t-values. On this subject, the bootstrapping procedure applies a data sample (observed data set) in the form of a population proxy and derives a subsample as a replacement for the data sample (Efron & Tibshirani, 1993). In this case, 5000 is proposed as the number of valid observations (Hair et al., 2014). Also, the number of cases is required to be identical to that of the valid observations within the original sample, which is 173 here. As such, the number of valid observations is recommended to be 5000 in this technique (Hair et al., 2014) while the number of cases is required to be equal to the number of



valid observations in the original sample (173). In the bootstrapping procedure, this cycle is repeated 5000 times, for instance, for a given number of times. After that, the program measures and saves statistical parameters based on the 5000 repetitions and their standard deviation. In this study, the path significance was evaluated by conducting a bootstrap procedure with a subsample size of 173 and 5000 repetitions.

The multiple regression coefficients are shown in Table 5. Moreover, after hypothesis testing, the significance levels belonging to training and development and supervisory support are 0.06 and 0.08 respectively. Furthermore, this value is 0.00 for innovative work behaviour on job performance, where the independent variables had a positive and significant impact on the predicted outcome which was innovative work behaviour. Therefore, hypotheses H1, H3, and H5 are supported, whereas, as demonstrated in table 5, compensation system and information sharing had no significant impact on innovative work behaviour.

No.	Relationship	Path	p-Values	Std.Error	t-value
		Coefficien			
		t (β)			
H1	IWB -> JP	0.68	0.000	0.052	13.178
H2	CSP -> IWB	0.101	0.134	0.067	1.501
H3	TDP -> IWB	0.208	0.014	0.084	2.464
H4	ISP -> IWB	-0.096	0.240	0.081	1.176
Н5	SSP -> IWB	0.210	0.010	0.081	2.587

Table 5. Multiple Regression Coefficients

# 6.4.2 Indirect Relationship

Based on Table 6 shown, H7 & H9 are positively and significantly effected in innovative work behaviour. While H6 & H8 are not affective and significantly related to innovative work behaviour.

Table 6. Mediating Effect of Innovative Work Behaviour	
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No.	Relationship	Path (β)	Std. Error	p-Values		Percentile bootstrap 95% confidence level		Decision
					t-values	Lower	Upper	
<b>H6</b>	CSP -> IWB	0.069	0.046	0.133	1.504	-0.024	0.156	Not
	-> JP							significant
H7	TDP -> IWB	0.141	0.057	0.013	2.481	0.034	0.259	Significant
	-> JP							
<b>H8</b>	ISP -> IWB	-0.065	0.055	0.236	1.185	-0.165	0.055	Not
	-> JP							significant
H9	SSP -> IWB	0.143	0.058	0.014	2.450	0.033	0.259	Significant
	-> JP							



# 7. Summary of Findings

Based on the Table 7 shown below, only 5 out of 9 hypotheses are supported. Whereby, H1, H3, H5, H7 and H9 testing against relationship against independent (training and development, supervisory support), mediate variable (innovative work behaviour) and dependent variable (job performance) are fully significant, and the hypotheses are supported. Moreover, these hypotheses possess a p-value <0.05 that directly supports the t-value resulting above 1.96. In contra, out of 4 hypotheses formed to test against mediating variables impact on relationship between independent and dependent variable, the hypothesis accepted was, H7 and H9, where supportive innovative work behaviour mediate relationship between both variables. While the rest do not mediate at all seeing p-value <0.05 and t-value <1.96.

Table 7. Summary of Hypothesis Testing

Hypothesis	Remarks	<b>P-Value</b>	t-value
H1: Innovative Work Behaviour has positively significant	Accepted	0.000	13.178
influences on Job Performance.			
H2: Compensation system has positively significant	Rejected	0.134	1.501
influences on Innovative Work Behaviour			
H3: Training and Development has positively significant	Accepted	0.014	2.464
influences on Innovative Work Behaviour			
H4: Information Sharing has positively significant	Rejected	0.240	1.176
influences on Innovative Work Behaviour			
H5: Supervisory Support has positively significant	Accepted	0.010	2.587
influences on Innovative Work Behaviour			
H6: Innovative Work Behaviour mediates the relationship	Rejected	0.133	1.504
between Compensation System and Job Performance.		0.135	1.50+
H7: Innovative Work Behaviour mediates the relationship	Accepted	0.013	2.481
between Training and Development and Job Performance.		0.015	2.401
H8: Innovative Work Behaviour mediates the relationship	Rejected	0.236	1.185
between Information Sharing and Job Performance.		0.230	1.105
H9: Innovative Work Behaviour mediates the relationship	Accepted	0.014	2.450
between Supervisory Support and Job Performance.		0.014	2.430

(p<0.05; t>1.96. P<0.05, T is supported, while P>0.05, T is not supported)

# 8. Discussion

# 8.1 Hypothesis Testing for Direct Effect

Hypothesis H1 indicates that innovative work behaviour has positive significant impact on job performance among physicians working in Iraqi public hospitals. H1 was proven significant with P- value < 0.05, while the finding tall with other literatures, like Van Zyl et al. (2019), proven via the study that innovative work behaviour indeed contributed to higher job performance working within a global Dutch ICT-consulting firm. While in Iraq perspective, found that innovative work behaviour indeed allows physicians to improve performance and attain higher level of job performance. Hypothesis H2 and H4, which propose compensation



system and information sharing have a significant impact on innovative work behaviour are rejected, as result indicated as insignificant and P-value> 0.05. The findings of H2 were aliment with previous study finding (Fernandez & Moldoaziev, 2012; Bos-Nehles & Veenendaal, 2019; Veenendaal & Bondarouk, 2015) who also found that compensation system negatively affect innovative work behaviour. Also, H4 were in aliment with previous findings (Eenink, 2012; Veenendaal & Bondarouk, 2015) which found no significant relationships between information sgaring and innovative work behaviour.

Moreover, the finding is supported H3 with P-value 0.014 and H5 with P-value 0.010. This is also supported by other literature where, it found there is a significant and positive relationship between training and development, supervisory support and innovative work behaviour (Pratoom & Savatsomboon, 2012; Bos-Nehles & Veenendaal, 2019). In fact, it was found via their study shown evidence for the strong positive effect of training and development practices on innovative work behaviour. In addition, supportive supervision is positively related to innovative work behaviour.

8.2 Hypothesis Testing for Mediate Effect

Innovative work behaviour impact as mediator. Where only two hypotheses (H7 & H9) were accepted while rest (H6 & H8) were rejected, as results indicated as insignificant and P-value> 0.05. The sixth and eighth hypotheses are not associated with the mediating of innovative work behaviour, which it states (H6) innovative work behaviour mediates the relationship between compensation system and job performance among physicians working in Iraqi public hospitals and (H8) innovative work behaviour mediates the relationship between information sharing and job performance among physicians working in Iraqi public hospitals. The seventh and ninth hypotheses are associated with innovative work behaviour, which it states (H7) innovative work behaviour mediates the relationship between compensation system and job performance among physicians working in Iraqi public hospitals and (H9) innovative work behaviour mediates the relationship between supervisory support and job performance among physicians working in Iraqi public

# 9. Research Contribution

The contribution of this study covers two aspects, namely practical implication and theoretical implication.

# 9.1 Practical Contribution

The practical implication derived from the results that show both independent variables – training and development and supervisory support style have positive significant impact on job performance. Thus, the management should use these results to further enhance and strengthen the organizational strategy towards attaining public hospitals employee job performance.

#### 9.2 Theoretical Contribution

This study strives to examine reciprocity norms among the social exchange relationships so as to create comprehension regarding physicians employed in public hospitals with respect to compensation systems, training and development, information sharing, supervisory support, innovative work behaviour, and job performance. Moreover, corresponding studies that



evaluate the mediating effects of innovative work behaviour play a crucial role since they generate a more satisfactory understanding of factors with the potential to aid in determining desired outcomes of an organization. As such, the findings showed that innovative work behaviour has no mediating role in the connection between compensation systems and job performance as well as information sharing and job performance. Nevertheless, it is confirmed in this study that innovative work behaviour has a mediating role in the link between training and development and job performance and also in that of supervisory support and job performance. Therefore, this study is deemed to contribute to literature via generating important information via integrating positive quantitative evaluation of data.

#### **10. Limitation and Suggestion for Future Studies**

Acknowledging the limitations of a study signifies its strength (Van Dolen et al., 2004). As such, one limitation of this study can be restricted direct contact with physicians employed in the public hospitals of Iraq because of the Covid-19 pandemic. In this study, data was gathered from physicians during normal working hours. As such, in future studies, data collection can be carried out in various working hours since they have three shifted working times. Also, it is recommended to explain the vitality of the study to the hospital's management department as they can provide respondents with a more comfortable atmosphere so that a larger number as well as better responses are achieved.

#### **11.** Conclusion

This study addresses low levels of job performance among physicians working in the public hospitals of Baghdad, Iraq through assessing the influence of compensation systems, training and development, information sharing, and supervisory support on job performance, with innovative work behaviour having a mediating role. The results indicated a positive significant effect, directly proving that training and development and supervisory support can raise innovative work behaviour. Aside from that, innovative work behaviour was utilized to find out if it acts as a mediator in the relationships among training and development, supervisory support, and job performance. Therefore, with physicians employed in Iraqi public hospitals as the target study population, a structured questionnaire was distributed in an online survey, as a result of which data from 173 respondents were successfully obtained.

After that, analysis was carried out on the acquired data using IBM SPSS Statistics 23 and Smart PLS 3.3.2, producing results through descriptive, demographic, factor, reliability, and regression analysis. Subsequently, the goodness of data was derived by applying factor analysis, after which reliability analysis was performed, indicating the reliability of all data as all had a Cronbach's Alpha exceeding 0.7. In the next step, regression analysis took place to explore the direct relationship between the independent variables and the mediate variables as well as to clarify the indirect connections among the mediating, independent, and dependent variables. This assessment revealed that innovative work behaviour has a significant positive influence on training and development and supervisory support. Similar connections failed to be proven for compensation systems and information sharing, with innovative work behaviour as the mediator. Moreover, based on the mediating analysis, innovative work behaviour acts as a mediate only among training and development and supervisory support.



and job performance. Therefore, five out of nine hypotheses were supported and only four were rejected.

This study contributes to extant literature in two ways. Firstly, it has a practical contribution as it provides public hospital managements with extra measures so that they can enhance their techniques in obtaining higher levels of job performance among their employees. The second contribution is theoretical due to its utilization of the Social Exchange theory in the context of gaining job performance among physicians, and more particularly the fulfilment theory which is linked to the HR department. Moreover, this study can be deemed as a reference point demonstrating the mediating role of innovative work behaviour among the aforementioned variables. As such, this study proved that good HR practices and skills can improve job performance, where innovative work behaviour needs to be taken into consideration as well.

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