

## RESEARCH ARTICLE

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## Designing a Human Resource Productivity Model based on the Material Benefits of Personnel in the Iraqi Civil Defense Corps

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### Abstract

The material interests of personnel significantly affect the productivity and quality of services provided. Understanding these interests is very important for organizations that aim to increase employee motivation and performance. The aim of this research is to design a human resource productivity model based on the material interests of personnel. The research is exploratory-applied in terms of its purpose and survey-correlation in terms of its method. The research was conducted in a qualitative-quantitative manner. The statistical population in the qualitative part is university professors and fire department managers in Iraq. The statistical population in the quantitative part consists of all fire department employees in Iraq, which is considered to be an unlimited number, so the sample size is 384 people based on the Cochran formula. The research tool is a researcher-made questionnaire. Data analysis in the qualitative part is the theme method and in the quantitative part is structural equations in the PLS software. The results of the study indicate that in the qualitative part, 5 main dimensions have been extracted, which include fair and competitive salaries and wages, bonuses and fringe benefits, job security and financial stability, financial growth opportunities through performance, and support for work-life balance with economic benefits. In the quantitative part, the overall fit of the research model based on the GOF formula was obtained as 0.65, which indicates a strong fit. The first and second order factor loadings have been confirmed with 99% confidence.

**Keywords:** Human Resources, Resource Efficiency, Material Benefits, Iraqi Civil Defense Corps

### Introduction

Due to several factors, few societies around the world have experienced an external, unpredictable, social and dynamic environment. Human resource departments of various organizations are affected by the external environment. These factors show both a danger and an opportunity for the human resources sector (Rizal et al., 2017). As the main responsibility of the human

resources sector is to offer efficient and effective resources, strategies should be implemented to decrease the issues which can be effective on human resource policies in organizations (Al Doghan et al., 2023). Humans are social animals that interact with others while living in a society. People cannot live in seclusion. Hence, decisions of one person are affected by the society. Researchers believe that focusing on human

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behavior and the effective factors on it is necessary (Osadzy, 2017). Employees' culture of hard work reinforces the employer-employee relationship. When an organization hires a person, a new relationship is formed between the organization and the employee (White et al., 2020). As employees and employers develop close working relationships, their relationships grow. Failure or success of the organization should manage this relationship. Business owners have to diagnose the importance of human resources for the organization (Ansah et al., 2018). Employee relationship management is to create alignment among all beneficiaries to enhance employee participation and organizational efficiency. It is possible to reduce attrition rate of the organization over time and increase its efficiency. Economic factor and material interests are effective on this flow (Rahman & Taniya, 2017). Given the above-mentioned issues, incentives, wage, and base pay are offered to increase employee motivation. Offering incentives can be in the form of financial incentives, i.e. money, bonus, commission, compensation of old age benefits, overtime, and social security. Moreover, non-financial incentives as annual leave, granting certification and acknowledgement can be offered too (Zebua et al., 2023). Motivation has a major role in employee performance. Although organizations are interested in maintaining employee motivation in the workplace but a perfect picture of an employee motivation does not always exist. Researchers agree that money (including employees' wage) is considerably effective on employee performance and productivity (Uka et al., 2021). Inflation is harmful for employees because it decreases their purchasing power. On the other hand, they are faced with

problems in their savings. Inflation creates ambiguity in a country and makes planning at micro and macro levels difficult (Jayaweera et al., 2022). Among other macro-economic factors, inflation and unemployment have the highest effect on employees' decision-making. They experience *psychological distress*, wastage of human resources, increased crime rate, and economic deprivation (Akinsomi et al., 2018). The above-mentioned factors related to training, wage and other benefits are effective on strategic relations of employees. Thus, these social and economic factors affect job satisfaction and as a result cause to decrease or increase employee productivity (Jayaweera et al., 2021).

This study explores employee productivity in the Iraqi Civil Defense Corps based on material interests. One of the effective tools for realization of material interests and enhancement of occupational activity of employees in the Iraqi Civil Defense Corps is financial incentives. A proper system makes use of financial incentives to achieve production indicators and human resource productivity. This is obtained through implementing tariff rates which consider complexity, working conditions and importance of its use, various forms of wages and incentive systems, payments and extra premiums and so on. Thus, organizing rewards based on the principle of material interests of each employee in individual and collective outcomes is one of the effective tools to enhance occupational activity of employees in a firm that finally increases efficiency. Growth of labor productivity due to increased activity and providing the conditions to address the material component of personnel including material incentives and reward lead to acceptable results in an

organization. All these points are reflected in the structural and logical plan to improve organizing material motivations and their effect on the growth of labor productivity of the Iraqi Civil Defense Corps through realization of material interests of workers. The process of improving material motivations begins with identification of the existing system of motivations and reward, analysis of employee satisfaction with its elements, studying the job market, and investigating financial capabilities of the firm. Exploring the structure of work motivation of personnel to improve the material incentives and reward system is necessary. In addition, analyzing employees' performance evaluation system that is performed in the framework of employees' material interests helps identify deficiencies in the reward system and regulate performance indexes by taking into account the purposes of the organization and productivity. Given that employees feel that financial benefits are not distributed fairly or are insufficient, they may lose their motivation to work. This can become one of the most fundamental challenges in increasing productivity. Also, cultural and social issues specific to Iraq may lead to inconsistencies in human resource policies and material benefits. These factors can include economic pressures, social instability, and cultural changes. It can be said that if material benefits are provided in a way that does not encourage the development of skills and improvement of capabilities, employees may remain in work positions without increasing their productivity. Also, there is rarely sufficient and reliable research and studies in this field that can properly analyze the relationship between material benefits and productivity rates in the Iraqi

Civil Defense Corps. Considering the above, this study aims to fill the research gap. In this regard, probable growth of labor productivity due to reinforcement of material interests of workers in work results and job activity and considering it in employees' efficiency outcome is important. It is important to determine the effect of growth of labor activity and reinforcement of material motivations on changing of labor productivity in the Iraqi Civil Defense Corps. In this way, they can develop actions to improve the material incentives and reward system. To this end, new policies regarding material incentives and reward of personnel should be formulated and developed based on the strategic purposes of the organization and tasks in the field of employee motivation and incentives. And finally, a mechanism should be provided to improve the material incentives system of the personnel in the Iraqi Civil Defense Corps. Thus, the below question is proposed:

How is the design of human resource productivity model based on material interests of the personnel in the Iraqi Civil Defense Corps?

## Research Literature

### *Material interests of personnel*

Material interests like wage and reward are essential to motivate the transportation personnel and are directly related to increased labor productivity (Irina et al., 2022). There is a significant relationship between material motivations and increased productivity and quantitative analyses confirm that timely motivations are led to better performance of employees. Lack of a well-defined motivational system can decrease employee competitiveness and motivation and has a negative effect on total

productivity. While material incentives are effective, paying attention to non-financial incentives like career recognition and development is necessary which can enhance employee motivation and productivity considerably (Irina et al., 2022). Material support of the public service personnel including allowances and rewards plays an important role in their job performance and satisfaction (Komiljon et al., 2022). Public compulsory social security acts as a primary material guaranty for people with family responsibilities and supports them during temporary disabilities and other events. Financing resources include contributions of the employer and the insured people that ensures the benefits are accessible if necessary (Сохань, 2020).

#### *Human resource productivity of firefighters*

The relationship between employee productivity and performance is necessary for success of the organization. Productivity shows how effectively and efficiently employees perform their tasks while employee performance involves more extensive aspects like job satisfaction and motivation. This relationship is complex and affected by factors like work environment and *manager-employee relationship*. Continuous research has highlighted a positive and significant relationship between employee productivity and performance (Arif, 2023). Hence, the relationship between employee productivity and performance is positive which is affected by factors such as work environment, job satisfaction, employee-manager relations and is closely associated with total performance of employees (Mardas et al., 2024). Moreover, work discipline is effective on employee productivity. For instance, lack of discipline

leads to employee absenteeism without any explanation that is effective on productivity (Kurniawan et al., 2024).

#### *Fire safety equipment*

According to Bambang, firefighters are champions who are working to protect the society and property against dangers of fire. Via this statement, firefighters have a very dangerous job and need optimal protection to perform their tasks effectively and securely. Personal protective equipment (PPE) includes fire-resistant clothing, helmet, glove, heat-resistant shoes, and respiratory equipment. There are several factors to protect firefighters against dangers of heat, smoke and dangerous chemicals that may be involved in firefighting activities (Sharp et al., 2024).

According to Ishengoma (2024), personal protective equipment has the capability to protect a person at work and separates the worker's body from existing dangers at the work environment. Helmet, belt and harnesses, fire boots, protective shoes, masks, ear muffs, goggles, gloves, face shields, life jackets, anti-virus masks and heat-resistant protective clothing are the personal protective equipment (Nazara et al., 2024).

#### *Physical health threat of firefighters*

Firefighting has been recognized as an unpredictable, dangerous, and difficult task. Intensive physical nature of job, psychological stress and harmful factors of lifestyle increase the risk of cardiovascular diseases and premature mortality of firefighters because of sudden cardiac events (SCEs) (Fahy et al., 2021). Several authors have identified pathogenic mechanisms of sudden cardiac events which may occur

during suppression activities (Santos et al., 2023).

### Research Background

Madzik et al. (2025). Conducted a study titled "The impact of motivation and management system on individual and organizational performance" This research introduces a new approach to exploring the relationship between motivational factors, management systems and performance at both individual and organizational levels. Unlike previous studies that focused on isolated performance components, our research presents a comprehensive model integrating these factors into a unified framework. This model offers deeper insights into how the combination of internal motivations and management systems impacts performance in various contexts. The research fills a gap in the literature on the interactions between these key components and provides new empirical evidence on their influence in achieving performance goals. Chi et al. (2023) conducted a study titled "How Financial and Non-Financial Rewards Moderate the Relationships between Transformational Leadership, Job Satisfaction, and Job Performance." The results show that transformational leadership significantly affects job satisfaction, which in turn is strongly related to job performance. Uka et al. (2021) conducted a study titled "Motivation as an Indicator of Performance and Productivity from the Employee Perspective". The results showed that the level of satisfaction and motivation at work was moderate and there was a significant correlation between motivation and company success. In addition, the data indicated that most participants were satisfied with financial allowances, but wished for higher

wages and better working conditions. Therefore, higher salaries, additional bonuses, and promotion of their role in work or recognition and appreciation seem to be very important motivational factors for employees. Ariani et al. (2024) conducted a study titled "With or without job satisfaction? The role of job satisfaction in the relationship between training and rewards on employee productivity". Statistical analyses show that training and rewards have a direct impact on employee job satisfaction and productivity. Companies should prioritize job satisfaction with more comprehensive proportions. Ichdan et al. (2024) analyzed employee performance through productivity: The role of kaizen culture, motivation and work discipline in the manufacturing industry. They emphasized the importance of these elements in enhanced organizational performance and proposed practical suggestions for companies that aim to increase employee productivity and participation.

Diawati et al. (2023) explored the role of information technology in improving the efficiency and productivity of human resources in the workplace and concluded that in the ever-changing digital age, the importance of information technology in increasing of human resources effectiveness and output in the workplace is highly important. Information technology facilitates automation of daily tasks, increases cooperation, provides suitable access to the information, makes effective education possible, supports smart data analysis, enhances efficient performance management, provides the possibility for job flexibility, and guarantees information security.

Zebu et al. (2023) investigated the effect of human resources quality, performance



evaluation and incentives on employee productivity at Raharja High School. They concluded that human resources quality with path coefficient equal to 0.145 has a positive effect on employee productivity; human resources quality with path coefficient equal to 0.121 has a positive effect on motivations; incentives with path coefficient equal to 0.784 have a positive effect on productivity while performance evaluation with path coefficient equal to -0.103 does not have a positive effect on employee productivity. It can be stated that all research hypotheses except one hypothesis have positive effect. According to results of data analysis, human resources quality is directly effective on employee productivity at Raharja High School. Thus, the hypothesis that states human resources quality has a direct effect on employee productivity is accepted.

In a study titled "patent productivity: strategic human resources and the attention-based view" Greer et al. (2023) explored rhetoric of strategic human resources management by senior management team, presence of a human resources manager, and weakness of human resources. This study reveals that innovative rhetoric of strategic human resources management can be helpful in patent productivity while weakness of human resources decreases patent productivity. With a deeper look at this concept, it can be found that time delays adjust the effect of rhetoric of innovation and administrative effect of human resources on patent productivity.

Tarigan et al. (2022) explored total reward system, job satisfaction and employee productivity on company financial performance: evidence from Indonesian Generation Z workers. They concluded that adopting a reward system has a positive

effect on the results. However, the interesting reality about this finding is that the Generation Z cannot be easily persuaded just by monetary incentives. Their preference has shifted from monetary concerns to personal ability. Empirical results show that the reward system acts as a tool to encourage employees and enhance productivity. Thus, firms have to utilize reward system methods to increase job satisfaction and productivity as well as maintain the relationship with beneficiaries. Also, management should pay attention to maintain good employee productivity to improve financial performance of the company through supervision of operations of the company and also ensuring that the beneficiaries' interests are realized.

Bogatyрева et al. (2022) examined the influence of material interests of transportation personnel on the growth of labor productivity. They proposed a structural and logical plan to improve organization of material motivations and their effect on the growth of labor productivity through realization of material interests of transportation workers.

## Methodology

The present study aimed to design a human resource productivity model based on the material benefits of personnel in the Iraqi Civil Defense Corps. The research is exploratory-applied in terms of its purpose and survey-explanatory in terms of its method. The research was conducted in a qualitative-quantitative manner. The statistical population in the qualitative section included university professors and heads and deputies in the Iraqi Civil Defense Corps. The statistical population in the quantitative section included all employees

of the Iraqi Civil Defense Corps, whose number was considered unlimited, therefore the sample size based on the Cochran formula was equal to 384 people. The research tool was a researcher-made questionnaire. The research tool is a researcher-made questionnaire. Data analysis in the qualitative part is the thematic analysis and in the quantitative part is structural equations in the PLS software. Validity of the questionnaire has been confirmed by a group of

management professors. To test reliability of the questionnaire, Cronbach's alpha was used where all components were reliable with the Cronbach's alpha greater than 0.7.

## Findings

### *Demographic findings*

Table 1 shows findings on demographic characteristics of participants that include age average, average work experience, and education.

Table 1.

*Demographic characteristics of the experts under study*

Group	Number	Age average	Average work experience	Education	
				MA	PhD
Fire department managers	5	49.33	19.25	20%	80%
University experts	5	56.66	22.50	-	100%

Having explored age average of the experts under study, it was determined that university professors and experts with an age average of 56.66 years old have the highest age group and fire department managers with an age average of 49.33 have the lowest age group. Exploring work experience showed that university professors and experts with 22.50 years of work experience have the highest experience and directors of the Ministry of Higher Education and Scientific Research with 19.25 years have lower work experience

than the university professors and experts. Among the participants, 9 had PhD and 1 had MA degree.

### *Extracted secondary codes*

First, researchers read the text carefully and then they extract secondary codes. The secondary codes obtained from primary codes and re-extracted from interviews conducted in this study are reported in Table 2.

Table 2.

*Dimensions and extracted secondary codes*

Row	Purpose	Research dimensions	Extracted secondary codes
1		Fair and competitive salaries and wages	Proportion of wage with specialty and experience
2			Transparency in payment system
3			Competitiveness of paid wage
4			Timely and regular payment of salaries
5			Annual raise and adaptation with inflation
6		Bonuses and fringe benefits	Offering financial facilities
7			Developing performance reward
8			Allocation of employees' share of research revenues

Row	Purpose	Research dimensions	Extracted secondary codes
9			Payment of allowances
10	Human resource		Job-related non-financial benefits
11	productivity based on	Job security and financial	Type of fair employment contract
12	material interests of	stability	
13	personnel		Sustainable financing
14			Observing labor laws
15			Offering various insurances
16		Financial growth opportunities through performance	Guaranteeing lack of human resource adjustment
17			Transparent performance evaluation system
18			Productivity-based payments
19			Earning money from research projects
20			Job promotion with pay raise
21		Support for work-life balance with economic benefits	Offering financial opportunities for innovation
22			Family allowances
23			Paid leave
24			Reduction of financial pressure during retirement
25			Financial facilities for recreation and welfare
			Flexible working hours

### Final model

Final model of the research is shown in Figure 2. Five main dimensions have been obtained including fair and competitive salaries and wages, bonuses and fringe benefits, job security and financial stability, financial growth opportunities through

performance, and support for work-life balance with economic benefits. Also, 128 primary codes were extracted from 10 interviews among which 25 secondary codes were obtained.



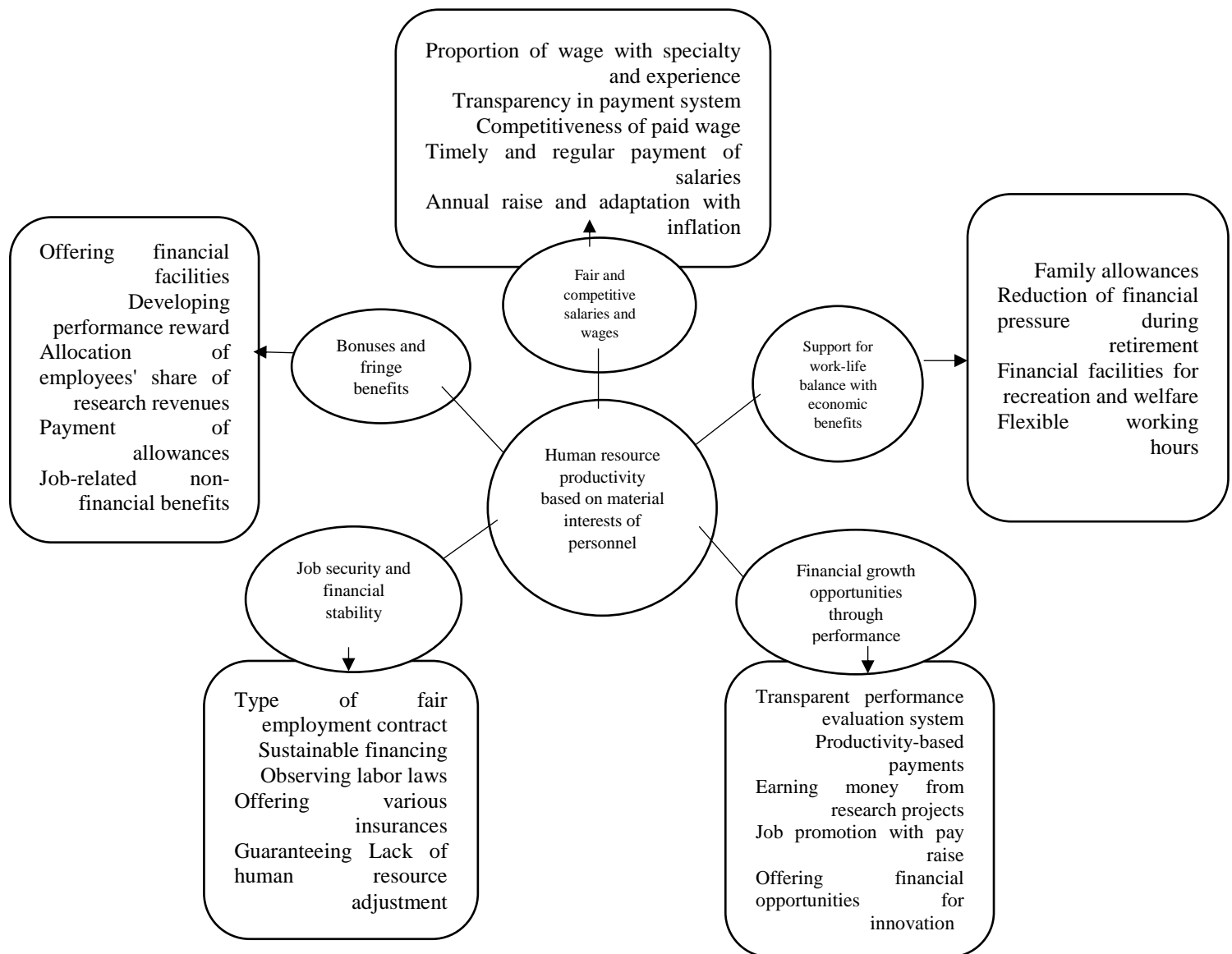


Figure 1. The final model obtained from secondary codes

## Findings

### Demographic statistics

Table 3 displays demographic statistics of the statistical sample including gender, age, education, and work experience.

Table 3.

### Descriptive statistics

Gender	Frequency	Frequency percentage	Cumulative frequency percentage
Male	338	88.02	88.02
Female	46	11.98	100
Sum	384	100	
Age	Frequency	Percentage	Cumulative frequency percentage
20-30	98	25.52	25.52
31-40	161	41.93	67.45
41-50	86	22.4	89.84

Gender	Frequency	Frequency percentage	Cumulative frequency percentage
51 and higher	39	10.16	100
Total	384	100	
Education	Frequency	Percentage	Cumulative frequency percentage
BA	214	55.73	55.73
MA	142	36.98	92.71
PhD	28	7.29	100
Total	384	100	
Work experience	Frequency	Percentage	Cumulative frequency percentage
5 years and lower	89	23.18	23.18
6-10 years	119	30.99	54.17
10-11 years	92	23.96	78.13
More than 15 years	84	21.88	100
Total	384		

Source: Research data

*Research components and items*

Research components and items and the symbols are represented in Table 4.

Table 4.

*Research components and items*

Row	Purpose	Dimensions	Symbol	Item
1	Human resource productivity based on material interests of personnel	Fair and competitive salaries and wages	q1	Proportion of wage with specialty and experience
2			q2	Transparency in payment system
3			q3	Competitiveness of paid wage
4			q4	Timely and regular payment of salaries
5			q5	Annual raise and adaptation with inflation
6		Bonuses and fringe benefits	q6	Offering financial facilities
7			q7	Developing performance reward
8			q8	Allocation of employees' share of research revenues
9			q9	Payment of allowances
10			q10	Job-related non-financial benefits
11		Job security and financial stability	q11	Type of fair employment contract
12			q12	Sustainable financing
13			q13	Observing labor laws
14			q14	Offering various insurances
15			q15	Guaranteeing lack of human resource adjustment
16		Financial growth opportunities through performance	q16	Transparent performance evaluation system
17			q17	Productivity-based payments
18			q18	Earning money from research projects
19			q19	Job promotion with pay raise
20			q20	Offering financial opportunities for innovation
21		Support for work-life balance with economic benefits	q21	Family allowances
22			q22	Paid leave
23			q23	Reduction of financial pressure during retirement
24			q24	Financial facilities for recreation and welfare
25			q25	Flexible working hours

### Exploring relations among variables

After exploring model fit of the measurement models, structural model and general model according to the algorithm of data analysis in PLS method, the researcher can explore and test relations among the variables. In this section, standardized coefficients of paths related to the hypotheses and t-values are examined. To confirm or

reject the hypotheses, t-value must be greater than 1.96 or less than -1.96. Values between the two figures indicate lack of significant difference of the calculated amount for regression weights equal to zero at the level 95%. Figure 2 shows output of factor loading and Figure 3 shows t-values related to relations among the variables.

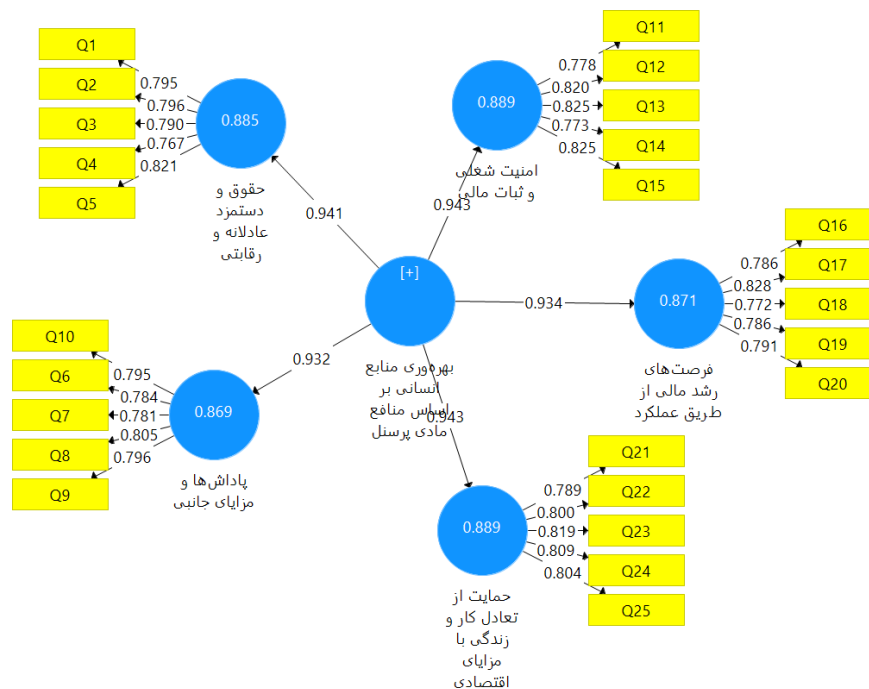


Figure 2. Research model and standardized coefficients

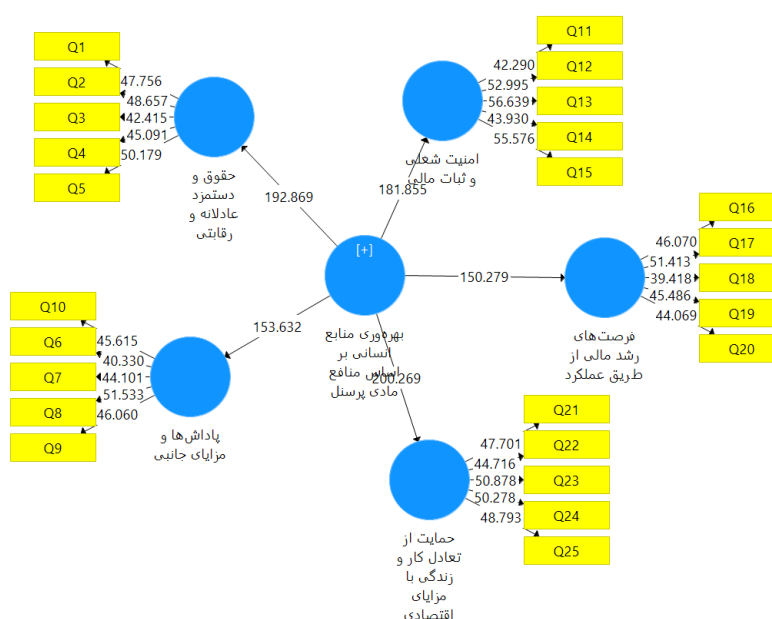


Figure 3. Research model and t-values

## Research Constructs

Table 5 describes the research constructs.

Table 5.

### Description of research constructs

Component	Reliability		Convergent validity		Results of convergent validity
	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)	
Job security and financial stability	0.863	0.864	0.902	0.647	It is confirmed.
Human resource productivity based on material interests of personnel	0.967	0.967	0.97	0.56	It is confirmed.
Fair and competitive salaries and wages	0.853	0.853	0.895	0.63	It is confirmed.
Support for work-life balance with economic benefits	0.864	0.864	0.902	0.647	It is confirmed.
Financial growth opportunities through performance	0.852	0.852	0.894	0.628	It is confirmed.
Bonuses and fringe benefits	0.852	0.852	0.894	0.628	It is confirmed.

AVE>5/0 , CR>7/0 , rho\_A>7/0 , Alpha>7/0

Considering Table 3, Cronbach's alpha and composite reliability are greater than 0.07 that show reliability of the research data. It is observed that the Average Variance Extracted (AVE) is always greater than 0.5 and composite reliability has also been obtained greater than 0.7 in all cases which is greater than the Average Variance Extracted (AVE). Thus, convergent validity is confirmed too.

### Overall fit of the research model

To examine the overall fit of the research model that controls both the measurement model and structural model, GoF formula is used. It is calculated via formula 1.

GoF

$$= \sqrt{\text{Communalities} \times R^2} \quad (1)$$

Table 6 shows average communality values and average R Squares that GoF is equal to 0.67 which shows a strong fit.

Table 6.

### Average communality values and R Squares

	R Square	Communality	avg-communality	avg-R
Job security and financial stability	0.889	0.518		
Human resource productivity based on material interests of personnel	-	0.495		
Fair and competitive salaries and wages	0.885	0.467		
Support for work-life balance with economic benefits	0.889	0.421		
Financial growth opportunities through performance	0.871	0.543		
Bonuses and fringe benefits	0.869	0.476		
			0.487	0.881

*Relations among the research dimensions and components*

Given Figures 2 and 3, a summary of the results is represented in Table 7.

Table 7.

*Result of relations among the research dimensions and components*

	Factor loading	t-value	P values	Status
Human resource productivity based on material interests of personnel-> Job security and financial stability	0.943	181.855	0	It is confirmed.
Human resource productivity based on material interests of personnel-> Fair and competitive salaries and wages	0.941	192.869	0	It is confirmed.
Human resource productivity based on material interests of personnel-> Support for work-life balance with economic benefits	0.943	200.269	0	It is confirmed.
Human resource productivity based on material interests of personnel-> Financial growth opportunities through performance	0.943	150.279	0	It is confirmed.
Human resource productivity based on material interests of personnel-> Bonuses and fringe benefits	0.932	153.632	0	It is confirmed.

Given Table 7:

- In the relationship between human resource productivity based on material interests of personnel with job security and financial stability, a significant relationship has been obtained that is equal to 181.855 (t-value>1.96). Therefore, this relationship is significant. Second order factor loading has been computed equal to 0.943.
- In the relationship between human resource productivity based on material interests of personnel with fair and competitive salaries and wages, a significant relationship has been obtained that is equal to 192.869 (t-value>1.96). Therefore, this relationship is significant. Second order factor loading has been computed equal to 0.941.
- In the relationship between human resource productivity based on material interests of personnel with support for work-life balance with economic benefits, a significant relationship has been obtained that is equal to 200.269 (t-value>1.96). Therefore, this relationship is significant. Second order factor loading has been computed equal to 0.943.
- In the relationship between human resource productivity based on material interests of personnel with financial growth opportunities through performance, a significant relationship has been obtained that is equal to 150.279 (t-value>1.96). Therefore, this relationship is significant. Second order factor loading has been computed equal to 0.943.
- In the relationship between human resource productivity based on material interests of personnel with bonuses and fringe benefits, a significant relationship

has been obtained that is equal to 153.632 ( $t\text{-value} > 1.96$ ). Therefore, this relationship is significant. Second order factor loading has been computed equal to 0.943.

Significance of all relations has been obtained greater than 1.96 ( $t\text{-value} > 1.96$ ). Thus, all relations are significant and confirmed.

### Discussion and Conclusion

This study was conducted to design a human resource productivity model based on the material benefits of employees in the Iraqi Civil Defense Corps. Therefore, the general research question is: How to design a human resource productivity model based on the material benefits of employees in the Iraqi Civil Defense Corps? The human resource productivity model based on the material benefits of employees in the Iraqi Civil Defense Corps includes 5 dimensions, fair and competitive salaries and wages, bonuses and fringe benefits, job security and financial stability, financial growth opportunities through performance, and support for work-life balance with economic benefits. Also, in the structural equation modeling section, the validity of the model of the relationships of dimensions and components has been confirmed. The relationship between human resource productivity based on the material benefits of personnel and job security and financial stability is significant. In explaining this result, it can be said that when employees feel job security and are financially secure, they often continue to work with more motivation. This security frees their minds from financial and job worries and they can focus more on performing their duties. When employees are worried about losing their jobs or financial instability, they are likely to not

focus enough on their work. This can lead to a decline in work quality and reduced productivity. Employees who feel secure in their organization tend to be more committed to their organization and, as a result, are more likely to conform to the organization's values and goals. This commitment can lead to improved overall organizational performance. Organizations that care about providing financial and job security to their employees tend to provide a positive work environment. This research is consistent with the study by Chi et al. (2023) titled "How Financial and Non-Financial Rewards Moderate the Relationships between Transformational Leadership, Job Satisfaction, and Job Performance." Chi et al. (2023) found that financial rewards have a negative moderating effect on the relationship between transformational leadership and job performance. These findings suggest that managers may benefit from combining transformational leadership with financial rewards to motivate employees and improve job performance. Human resource productivity based on material benefits of personnel has a significant relationship with fair and competitive salaries and wages. In explaining this result, it can be said that competitive salaries and wages act as a motivating factor. When employees feel that they are being paid appropriately according to their skills and experience, they are more motivated to work harder and better. This can lead to increased productivity. Organizations that offer fair salaries and benefits may help attract and retain talented and skilled employees. Talented employees are more likely to stay in an environment with competitive wages, which leads to strengthening the organization's capabilities and increasing its



productivity. If salaries and wages are low or unfair, employees may feel dissatisfied and consider changing jobs. This dissatisfaction can reduce motivation and productivity. In contrast, fair wages can enhance job satisfaction and increase motivation. Paying fair and competitive salaries and wages helps to form a positive organizational culture. Competitive wages give employees the feeling that the organization is growing and successful. This confidence can lead to strengthening work processes, increasing innovation, and ultimately improving productivity. This research is in line with the study by Oka et al. (2021) entitled "Motivation as an indicator of performance and productivity from the perspective of employees". The results showed that the level of satisfaction and motivation at work is moderate and there is a significant correlation between motivation and company success. Human resource productivity based on the material benefits of personnel has a significant relationship with economic benefits by supporting work-life balance. In explaining this result, it can be said that supporting work-life balance can reduce stress and fatigue. When employees feel that the company values their personal and family life and provides appropriate economic benefits for this purpose, they will be more motivated and able to focus on work. This usually leads to increased productivity. A good work-life balance leads to increased job satisfaction. When employees can have enough time for family, recreation, and personal activities, they feel happier and more fulfilled at work, which in turn leads to increased productivity. Organizations that focus on work-life balance typically have lower absenteeism and employee turnover. This stability can help improve productivity

because the organization can focus on developing and improving employee skills and reduce the costs of moving and training new employees. Creating work-life balance gives employees the opportunity to rest and refresh their minds. This rejuvenation can increase creativity and innovation at work, which in turn helps improve organizational productivity. Organizations that focus on and support work-life balance create a more positive culture. These benefits make employees feel that they are receiving financial and emotional support from the organization, which can lead to increased commitment and productivity. This result is consistent with Sekura's (2024) study entitled "Employee motivation as a factor for improving the efficiency of the management system." This study is dedicated to employee motivation to increase the efficiency of the organization's management systems. Organizational and economic relations arise from the process of motivating employees to increase the efficiency of the management system. Human resource productivity based on personnel material benefits has a significant relationship with financial growth opportunities through performance. In explaining this research, it can be said that when employees have clear opportunities to increase their income through better performance, they usually show more motivation to try and improve their performance. This stimulation can be in the form of financial rewards, salary increases, or opportunities for promotion. Providing financial growth opportunities usually creates higher standards of quality and productivity in employees. Employees are driven to challenge themselves and strive to be the best at their work in order to benefit from financial benefits. Organizations that

give their employees financial opportunities based on performance help strengthen their commitment and loyalty. Employees feel that their efforts are appreciated and lead to a specific reward. This commitment can help improve productivity, as employees are more likely to stay in their workplace and contribute to the growth of the organization. Organizations that provide attractive financial opportunities for their employees are usually able to attract top talent. These talents can play a key role in increasing the productivity and innovation of the organization. Financial growth opportunities are usually associated with training and personal development. Organizations provide their employees with the necessary training so that they can prepare for promotion in their jobs. This personal development is not only beneficial to the employees themselves, but also increases the productivity of the entire organization. Organizations that provide growth opportunities and appropriate financial rewards help create a healthy competitive environment among employees. This competitive environment can lead to improved and increased group performance and productivity. Human resource productivity based on the material benefits of personnel has a significant relationship with bonuses and fringe benefits. Bonuses and fringe benefits such as scholarships, health insurance, paid vacations, and work from home can act as incentives that encourage employees to work harder and perform better. This motivation can take the form of increased work quality and greater productivity. When employees receive reasonable fringe benefits, such as health plans, financial benefits, or flexible working options, they will feel more satisfied with

their jobs. This satisfaction will lead to increased commitment and motivation to work, which in turn increases productivity. Providing appropriate fringe benefits can lead to reduced absenteeism and employee turnover. Employees who feel supported and cared for by the organization are less likely to consider changing jobs, and this stability can contribute to higher organizational productivity. Bonuses and fringe benefits improve the quality of the employee work experience. A positive workplace experience can increase motivation, engagement, and collaboration in teams, which in turn affects overall productivity. The results of this study are consistent with the results of the research by Ariani et al. (2024) entitled “With or without job satisfaction? The role of job satisfaction in the relationship between training and rewards on employee productivity.” Statistical analyses by Ariani et al. (2024) show that training and rewards have a direct effect on employee job satisfaction and productivity.

In this regard, the below suggestions are presented:

- 1) Compensation of competitive services: it is necessary to ensure that the personnel wage and benefits compete with the labor market. This can create more motivation for employees.
- 2) Performance rewards: implementing reward systems based on performance can create more motivation for employees to do their tasks with the best quality.
- 3) Additional benefits: offering additional benefits like medical insurances, retirement plans, and related compensations can make employees more committed to the organization.

This study proposes some suggestions for future studies: 1) predictive modeling of employee performance based on financial interests: creating models to predict employee performance given financial and non-financial interests; 2) the effect of financial motivational programs on new generation of employees: exploring how new generations (like Generation Z) respond to various financial options and which tendencies they have.

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## References

- Akinsomi, O., Mkhabela, N., & Taderera, M. (2018). The role of macro-economic indicators in explaining direct commercial real estate returns: evidence from South Africa. *Journal of Property Research*, 35(1), 28-52.
- Al Doghan, M. A., & Zakariya, A. (2023). Human Resource Economics: Impact of Social and Economic Factors on Employer-Employee Relationship. *International Journal of Economics and Finance Studies*, 15.
- Ansah, R. H., Osei, J., Sorooshian, S., & Aikhuele, D. O. (2018). Importance of employer-employee relationship towards the growth of a business. *Calitatea*, 19(166), 42-49.
- Ariani, M., Tamara, D., Malik, A. R., & Darma, D. C. (2024). With job satisfaction or not? The role of job satisfaction in the relationship between training and rewards on employee productivity. *ECONOMICS-Innovative and Economics Research Journal*, 12(3), 293-320.
- Arif, F. (2021). The influence of transformational leadership, discipline, productivity on employee performance. *SCIENTIFIC JOURNAL OF REFLECTION: Economic, Accounting, Management and Business*, 4(1).
- Bogatyreva, I., & Ilyukhina, L. (2022). Influence of material interest of transportation personnel on the growth of labor productivity. *Transportation Research Procedia*, 63, 13-20.
- Chi, H., Vu, T. V., Nguyen, H. V., & Truong, T. H. (2023). How financial and non-financial rewards moderate the relationships between transformational leadership, job satisfaction, and job performance. *Cogent Business & Management*, 10(1), 2173850.
- Diawati, P., Gadzali, S. S., Abd Aziz, M. K. N., Ausat, A. M. A., & Suherlan, S. (2023). The Role of Information Technology in Improving the Efficiency and Productivity of Human Resources in the Workplace. *Jurnal Teknologi Dan Sistem Informasi Bisnis*, 5(3), 296-302.
- Fahy, R.F.; Petrillo, J.T.(2022). *Firefighter Fatalities in the US in 2021*; National Fire Protection Association: Quincy, MA, USA.
- Greer, C. R., Bruton, G. D., & Zachary, M. A. (2023). Patent productivity: Strategic human resources and the attention-based view. *The International Journal of Human Resource Management*, 34(14), 2677-2707.
- Ichdan, D. A. (2024). Analysis of employee performance through productivity: The role of kaizen culture, motivation, and work discipline in the manufacturing industry. *Annals of Human Resource Management Research*, 4(1), 13-28.
- Irina, Bogatyreva., Larisa, Ilyukhina. (2022). Influence of material interest of transportation personnel on the growth of labor productivity. *Transportation research procedia*, doi: 1016/10/j.trpro.05/2022.002.
- Ishengoma, N. M. (2024). We get affected too: Women's occupational safety and health hazards in the fish processing subsector in Tanzania demystified. *Heliyon*, 10(4), e26259. <https://doi.org/1016/10/j.heliyon.2024.e26259>.
- Jayaweera, T., Bal, M., Chudzikowski, K., & De Jong, S. (2021). The impact of economic factors on the relationships between psychological contract breach and work outcomes: a meta-analysis. *Employee Relations: The International Journal*, 43(3), 667-686.
- Komiljon, Zakirdjanovich, Kadirov. (2022). On the issue of material provision of personnel of the civil service of special communication and information protection of Ukraine. *Naukovij visnik Užgorods'kogo nacional'nogo universitetu*, doi: 24144/10/2307-2021/3322.25/67.
- Madzik, P., Soukup, P., Zimon, D., Droppa, M., Štichauerová, E., Šírová, E., & Lysenko-Ryba, K. (2025). The impact of motivation and management system on individual and organizational performance. *The TQM Journal*.
- Mardas, N., & Charalambous, C. (2024). Improving Cyprus fire service performance through modern hr management practices and

- job satisfaction. *Journal of Regional Economic and Social Development*, 16, 96-106.
- M., Ю., Сохань. (2020). 2. Загальнообов'язкове державне соціальне страхування як форма соціального захисту осіб із сімейними обов'язками. doi: 32837/10/PYUV.V0I2(31).567.
- Nazara, D. Y., Mendrofa, M. S. D., Telaumbanua, E., & Harefa, I. (2024). The Importance of Personal Protective Equipment in Firefighter Safety and Health Efforts in the North Nias District Fire and Rescue Field. *ProBisnis: Jurnal Manajemen*, 15(2), 149-154.
- osadzy, K. (2017). Social and Economic factors in decision making under uncertainty: five essays in behavioral economics, 727. Linköping University Electronic Press.
- Rahman, M. S., & Taniya, R. K. (2017). Effect of employee relationship management (ERM) on employee performance: A study on private commercial banks in Bangladesh. *Human Resource Management Research*, 7(2), 90-96.
- Rizal, O., Suhadak, M., & Kholid, M. (2017). Analysis of the influence of external and internal environmental factors on business performance: A study on micro small and medium enterprises (MSMES) of food and beverage. *Russian Journal of Agricultural and Socio-Economic Sciences*, 66(6), 47-56.
- Santos, V.; Massuça, L.M.; Monteiro, L.; Angarten, V.; Abel, M.G.; Fernhall, B.; Santa-Clara, H.(2023). Comparison of acute arterial responses following a rescue simulation and maximal exercise in professional firefighters. *Healthcare*, 11, 1032.
- Sharp, B., Dawes, J., & Victory, K. (2024). The market-based assets theory of brand competition. *Journal of Retailing and Consumer Services*, 76(October 2023), 103566.  
<https://doi.org/1016/10/j.jretconser.103566/2023>.
- Tarigan, J., Cahya, J., Valentine, A., Hatane, S., & Jie, F. (2022). Total reward system, job satisfaction and employee productivity on company financial performance: evidence from Indonesian Generation Z workers. *Journal of Asia Business Studies*, 16(6), 1041-1065.
- Uka, A., & Prendi, A. (2021). Motivation as an indicator of performance and productivity from the perspective of employees. *Management & Marketing. Challenges for the Knowledge Society*, 16(3), 268-285.
- White, L., Lockett, A., & Currie, G. (2020). How does the availability and use of flexible leave influence the employer–employee relationship? *Human Resource Management*, 59(5), 445-461.
- Zebua, S., & Chakim, M. H. R. (2023). Effect of Human Resources Quality, Performance Evaluation, and Incentives on Employee Productivity at Raharja High School. *APTISI Transactions on Management*.