



# The Effective Of Job Rotation On Career Management The Technology–Organization–Environment Framework Perspective

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## ARTICLE INFO

## ABSTRACT

Considering the viewpoint of the Technology-Organization-Environment (TOE) framework, this study investigates the impact of job rotation on career management. Job rotation has received a lot of attention recently as a method meant to improve employee development and organizational effectiveness. The relationship between job rotation and career management has, however, received very little attention in the literature, especially when it comes to the TOE framework. This study closes this gap by examining the effects of job switching on career management while taking into account the organizational, technological, and environmental aspects that influence people's career experiences. This study adopted a quantitative method by using an online questionnaire to collect data from 135 participants. The smart-PLS software was employed to analyze the data. The findings show that technological, organizational, and environmental factors all significantly and favorably affect career management. Changes in organizational, technological, and environmental elements were found to improve career management specifically. The study emphasizes the significance of taking into account the interaction between job rotation and the larger context in which it occurs, offering insightful information for organizations looking to improve career management through initiatives involving job rotation.

**Keywords:** Job Rotation; Career Management; TOE Framework

## 1. INTRODUCTION

In today's fast-paced and dynamic business environment, career management has become a critical aspect for individuals to navigate their professional paths successfully. Career management is a proactive and intentional method that people use to manage their careers and accomplish their professional goals [13-16]. It entails a set of deliberate acts and choices meant to improve one's chances for a successful career, personal development, and job happiness. Setting professional objectives, acquiring skills and competencies, looking for job possibilities, developing networks, making career decisions, and adjusting to changing circumstances are just a few of the many facets of career management [37-39]. People today need to be proactive and take charge of their professions if they want to remain relevant and achieve in their chosen fields. It takes strategic planning, constant learning, and adaptation to move through a career's various stages and find long-term success. The practice of career management is not restricted to any one stage of one's professional development. It begins at the beginning of a person's career when they may be developing their abilities, growing their network of professional contacts, and investigating other career alternatives [10]. It continues as people advance, overcome new obstacles, and make important career decisions throughout their working lives [37-39]. Transitioning between organizations, sectors, or jobs, as well as making plans for your retirement or other post-career activities, are all examples of career management. People must have a solid awareness of their abilities, interests, values, and career goals in order to manage their careers effectively. It entails evaluating oneself, making goals, and coming up with a strategy to reach those goals [45]. Additionally, it calls for proactive career exploration and opportunity exploitation, ongoing skill development, and flexibility in response to shifting trends and demands in the labor market [43].

Additionally, job rotation entails exposing employees to various positions, responsibilities, or departments within a company for a certain amount of time. This gives them the chance to obtain a variety of experiences and expand their skill set [2]. It can take many different shapes, including lateral job rotations, where people move vertically up the organizational hierarchy, vertical job rotations where employees move across departments, and diagonal job rotations, where employees move across multiple divisions or business units [2]. The connection between career management and job rotation is intricate and multifaceted. On the one hand, switching jobs can give workers the chance to learn and develop, get fresh perspectives, and build a diversified skill set, all of which can improve their career chances [2-9]. On the other hand, job rotation can also bring about obstacles that can affect employees' career trajectories and well-being, such as increasing job demands, uncertainty, and adjustment problems [25]. For both businesses and people, it's critical to comprehend how job rotation affects career management. To ensure that work rotations effectively impact career development and talent retention, organizations must build effective job rotation programs that are in line with their strategic objectives, organizational culture, and employee needs. On the other hand, workers must actively manage [25-47].

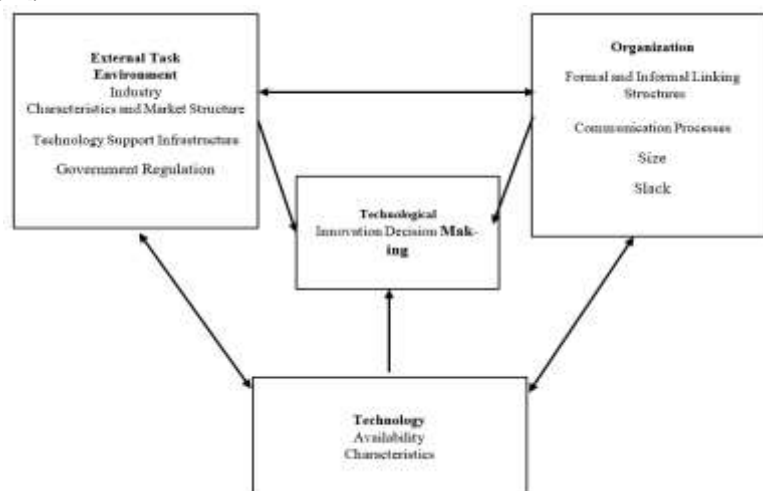
Although the idea of job rotation is not new, its significance has increased as firms deal with more difficulties such technology breakthroughs, shifting client demands, and international rivalry. Organizations are responding by implementing work rotation programs to improve the knowledge, adaptability, and abilities of their staff members as well as to retain and motivate their best employees [9].

Organizations are essential in assisting career management. To assist employees in achieving their career goals, organizations can offer career development programs, mentoring, coaching, and chances for job rotations or promotions [19]. Organizations may boost employee engagement, retention, and productivity by supporting their employees' career development, and ultimately profit from a talented and motivated workforce [5]. In a nutshell, career management is a proactive and intentional method people use to manage their careers and accomplish their professional goals. It entails self-evaluation, goal-setting, ongoing education, flexibility, and strategic planning. Through various career development initiatives, organizations can also support career management efforts. In today's dynamic and competitive employment market, individuals can improve their prospects of career success and fulfillment by actively managing their careers. The article contends that job rotation can improve employees' skills, competencies, organizational awareness, flexibility, and networking abilities when properly implemented within the TOE framework. Additionally, it may help them progress professionally, like their jobs, and have a successful overall career.

The authors of this study examine several variables that affect the association between job rotation and career outcomes in order to investigate the impact of job rotation on CR. The researchers examine previous studies and theories and take into account many viewpoints, including the human, organizational, and contextual elements that can affect how job rotation affects career management. The academics talk about how to manage careers in today's dynamic workplace and the practical implications for businesses and workers when putting job rotation programs into practice.

## 2. THE PROPOSED FRAMEWORK OF TECHNOLOGY ORGANIZATION ENVIRONMENT (TOE)

In the fields of information systems and innovation management, the Technology-Organization-Environment TOE framework is a commonly used conceptual framework that aids in understanding the elements impacting the adoption and deployment of technology in businesses [41]. According to the TOE framework, there are three primary groups of elements that have an impact on how technology is adopted and used: organizational factors, environmental factors, and technology-related factors. Figure 1 shows the technology, organization and environment framework.



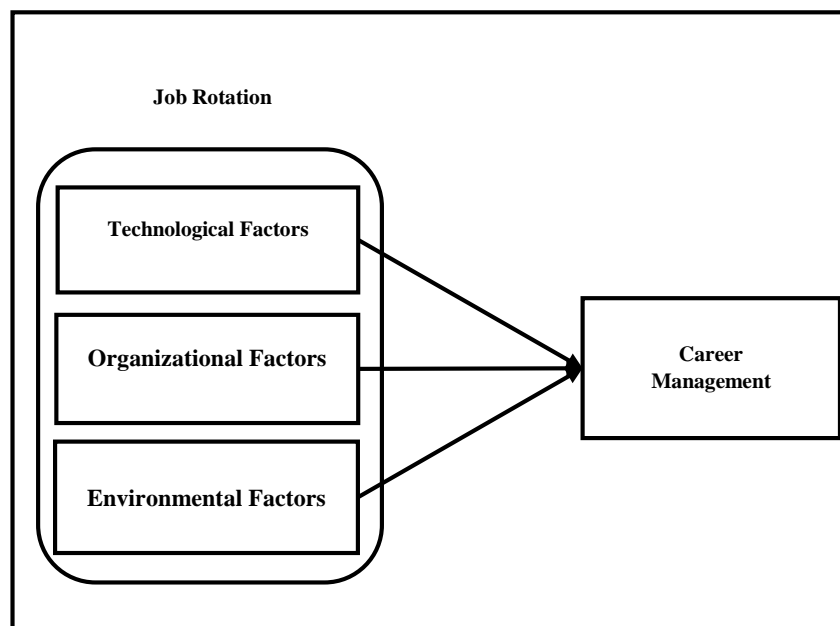
**Figure 1:** Technology-Organization-Environment Framework.

- **Technology-related factors:** These include a technology's perceived advantages, complexity, compatibility with current systems, and observability [7]. Technologies that are deemed useful, simple to use, compatible with existing systems, and obvious in terms of their influence on performance are more likely to be adopted and used by organizations [32].
- **Organization-related factors:** These include the internal traits and procedures of the organization that have an impact on the adoption and use of technology [38]. This may involve elements like the size, structure, culture, resources, support from senior management, and IT capabilities of the firm [6]. Successfully implementing new technology is more likely in organizations with favorable internal traits, such as a flexible structure, an innovative culture, ample resources, and strong top management backing.
- **Environment-related factors:** This refers to the external factors that influence the adoption and implementation of technology, including the competitive environment, regulatory and legal factors, market demand, and industry standards [30]. Organizations operating in dynamic and competitive environments may be more motivated to adopt and implement technology to gain a competitive advantage.

According to the TOE framework, the interplay and alignment of these three sets of criteria will decide how technology is adopted and used in businesses. A technology, for instance, is more likely to be adopted and implemented successfully in an organization working in a dynamic and competitive environment if it is seen as useful, compatible with the firm's existing systems, and supported by strong top management [30]. The TOE framework offers a thorough and all-encompassing method for comprehending the complicated dynamics involved in the adoption and use of technology in businesses. It emphasizes the significance of taking into account organizational and environmental elements in addition to technological factors that affect decisions about the adoption and use of technology [14]. Organizations may better plan and manage the adoption and implementation of technology to meet their strategic objectives and gain a competitive advantage in the ever-changing business environment by understanding these elements and how they interact.

### 3. RESEARCH FRAMEWORK AND HYPOTHESES

Figure 2 illustrates the proposed research framework in this study. This research framework was constructed based on the career management theory and TOE framework, supported by empirical evidence to explore the effect of job rotation on career management from the perspective of the Technology-Organization-Environment TOE framework.



**Figure 2:** Research framework

Career management theory provides a framework for understanding how individuals can manage their careers over time, and it can be a valuable tool for individuals seeking to make informed career decisions and achieve their career goals [17-23-29]. Additionally, several empirical studies have found that job rotation is strongly related to career management [3-15]. According to [44], job rotation is a primary vehicle for employee development in the organization, where career development is one of the intended outcomes of job rotation practices [33]. Furthermore, job rotation is considered an effective tool to gain skills that employees need when mastering new technology [34].

On the other hand, the TOE framework helps to understand the relationship between job rotation and career management by considering the technological, organizational, and environmental contexts involved in the adoption and use of technology in organizations. Organizations can optimize their job rotation programs to

better support employee development and career management [14-30]. Thus, based on the TOE framework, it can be said that job rotation has a positive effect on career management, as it can enhance employees' technical skills, broaden their organizational experiences, and make them more adaptable to changing environmental conditions. Therefore, this study has proposed the following hypotheses to test the effect of job rotation on career management from the perspective of the Technology-Organization-Environment (TOE) framework.

- H1. Job rotation (Technological-Factors) has a significant effect on career management.  
 H2. Job rotation (Organizational-Factors) has a significant effect on career management.  
 H3. Job rotation (Environmental-Factors) has a significant effect on career management.

#### 4. RESEARCH METHODOLOGY

This study employed a quantitative approach to explore the effect of job rotation on career management at Kalamoon University in Syria by using an online survey. Employees of Kalamoon University made up the study's population. The total population of this study is 490. Based on Krejcie-Morgan's table, the appropriate sample size for this study is 217 [26]. The questionnaire was adopted from previous studies [11]. It is divided into three sections. The first section consists of questions about demographic information (age, gender, academic qualification, and length of work experience), and the second section comprises 12 items to measure three factors of job rotation [technology-related factor (TE), organization-related factor (OR), and environment-related factor (EN)]. Finally, the third section pertains to career management (CM), which consists of 5 items. A five-point Likert scale was utilized in the questionnaire to quantify all variables for data collection, and it was used to measure the variables.

The questionnaire was emailed to the sample, which was chosen at random from Kalamoon University employees, along with a cover letter outlining the goals of the study and providing directions for how to respond to the questionnaire. A total of 146 respondents have participated in the present study. The data was examined in term of missing data by using SPSS version 25.0. There were no missing values found. Since the researcher used Google Form to collect data, the mechanism to check missing values could be easily traced because the submission of the form is only allowed when all the particulars in the form are filled up or the respondents are required to answer all the questions in the questionnaire. Despite this feature, the researchers noted 11 cases with exclusively the unchanging scale (neutral) had been marked for all the items in the questionnaire. Therefore, the number of valid responses was decreased to 135.

The researchers used the Smart Partial Least Square Structural Equation Modeling (Smart PLS-SEM) version 4. to test the study hypotheses. The literature indicated that there are two stages in conducting PLS-SEM analysis that is the measurement model assessment and the structural model assessment [22].

#### 5. DATA ANALYSIS AND RESULTS

##### 5.1 Demographic Information

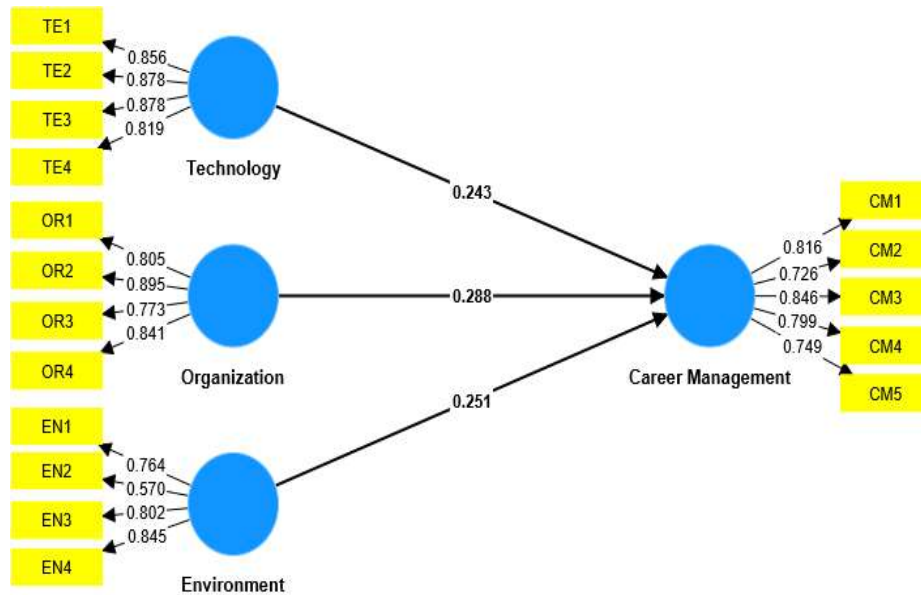
A total of 135 participants have taken part in this study. As shown in Table 1, 34 % of the respondents were between 21 and 30 years old followed by those aged between 31 to 40 years (30%), 41 to 50 years old (26%), and those between 51 to 60 years (10%). In addition, the respondents were predominantly female, comprising 69% of the sample and male constituting 31 %. As for "academic qualification", a majority of the respondents (71%) have a bachelor's degree, and the lowest frequency was observed for PhD (1%). As for work experience, the highest frequency was for "1-5 years" (32%) followed by "6-10 years" (21%), and the lowest frequency for "20 and above years (12%).

**Table 1:** The Respondents' Demographic Information

Variable	Frequency	Percentage %
<b>Gender</b>		
Male	42	31%
Female	93	69%
<b>Age Group (years)</b>		
21-30	46	34%
31-40	41	30%
41-50	35	26%
51-60	13	10%
<b>Academic Qualification</b>		
Diploma	13	10%
Bachelor	96	71%
Master	24	18%
PhD	2	1%
<b>Length of Work Experience</b>		
1-5	43	32%
6-10	29	21%
11-15	25	19%
16-20	23	17%
21 and above	15	11%

**5.2 Measurement Model Assessment**

The evaluation of the measurement model is the first stage in the PLS-SEM analysis process. The primary purpose of the measurement model is to verify the validity and reliability of the constructs in order to justify the appropriateness of include the constructs in the model [21]. For the assessment of the measurement model, three main measures, namely internal consistency reliability, convergent validity and discriminant validity were used. The results of the assessment measurement model are mentioned in Figure 3 and Table 2, respectively.



**Figure 3: Measurement Model**

**Table 2: Measurement Model Results (CA, CR, and AVE)**

Variable	Items	Factor Loading	Cronbach's Alpha (CA)	Composite Reliability (CR)	Average Variance Extracted (AVE)
Technological Factors	TE1	0.856	0.881	0.893	0.736
	TE2	0.878			
	TE3	0.878			
	TE4	0.819			
Organizational Factors	OR1	0.805	0.848	0.855	0.688
	OR2	0.895			
	OR3	0.773			
	OR4	0.841			
Environmental Factors	EN1	0.764	0.76	0.876	0.566
	EN2	0.570			
	EN3	0.802			
	EN4	0.845			
Career Management	CM1	0.816	0.85	0.871	0.622
	CM2	0.726			
	CM3	0.846			
	CM4	0.799			
	CM5	0.749			

The commonly used measure of internal consistency reliability in PLS-SEM is composite reliability (CR) and Cronbach's alpha (CA). [21] mentioned that the value of composite reliability and Cronbach Alpha must be more than 0.7. According to Table 2, the CR and CA values for all constructs were above .70. Therefore, the instrument was satisfactory and reliable.

The convergent validity is measured by examining the Average Variance Extracted (AVE) which should be more than 0.5. Meanwhile, the factor loading for each item should be .50 or more to support the convergent validity.

As shown in Table 2, the factor loading values for all items ranged from .570 and .895, and all constructs had an AVE more than .50, this means convergent validity is acceptable.

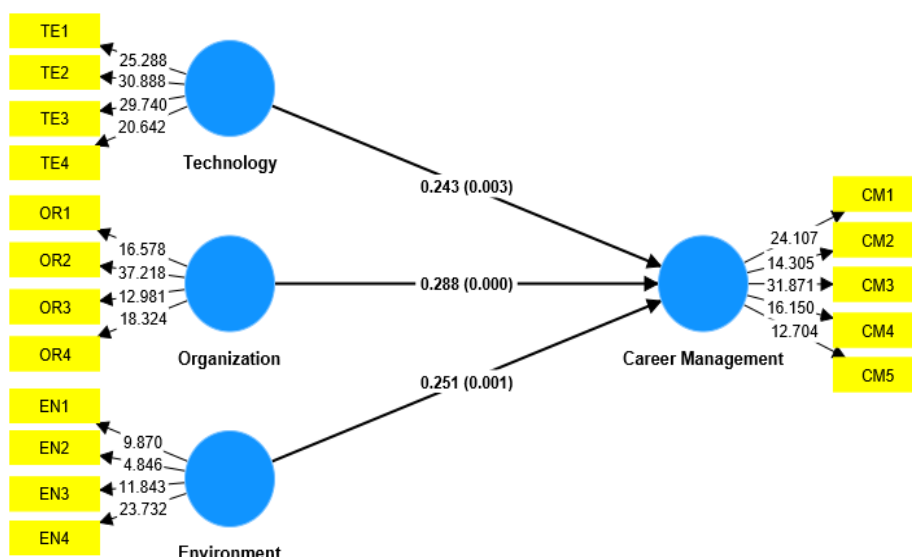
The discriminant validity measures the extent to which an individual construct is different from other constructs. discriminant validity is tested in this study with the aid of Fornell and Larcker’s guidelines (1981), which notes that the AVE, meaning square root, should be greater than the square association with other constructs [18]. The following results in Table 3 show that discriminant validity was achieved.

**Table 3: Discriminant Validity**

Variables	Career Management	Environment	Organization	Technology
Career Management	0.789			
Environmental Factors	0.443	0.753		
Organizational Factors	0.503	0.362	0.83	
Technological Factors	0.482	0.365	0.511	0.858

**5.3 Structural Model Assessment**

Another stage of Smart PLS-SEM analysis is conducting a structural model assessment (bootstrapping). Measuring the structural model allows for the assessment and ascertaining the significance of the path coefficient [22], the coefficient of determination R<sup>2</sup>, and lastly the predictive relevance of all models [20-42]. Figure 4 below depicts the structural model of the present study.



**Figure 4: Structural Model**

Table 4 shows the direct association between the variables. In order to determine the significance between the variables, P-values, and T-values are calculated. There is a significant effect between the variables if the t-value is more than 1.96 and the P-value is less than 0.05.

Based on Table 4, the findings can be described as follows. First, Technological-factors (TF) have a positive and significant effect on career management ( $\beta= .243, p= .003$ ). On average, every one-unit change in technology would increase career management by .243 units. According to the statistical evidence obtained from the structural model, the H1 hypothesis was supported.

The results given in Table 4 revealed that the organizational -factors (OF) had a significant and positive effect on career management ( $\beta= .288, p=.000$ ). On average, every one unit of change in the organizational factors would increase the career management by .288 units. Therefore, H<sub>2</sub> hypothesis which stated that organizational factors had a significant effect on career management, was supported by statistical evidence.

As illustrated in Table 4, the environmental factors (EF) had a statistically significant and positive effect on career management ( $\beta= .251, p= .001$ ). On average, every one unit of change in the environmental factors would increase career management by .251 units. Therefore, H<sub>3</sub> was supported by statistical evidence.

**Table 4: Structural Model Results**

Hypothesis	Path coefficient	T-statistics	P-values	Results
H1: TF -> CM	0.243	2.959	0.003	supported
H2: OF -> CM	0.288	3.597	0.000	supported
H3: EF->CM	0.251	3.444	0.001	supported

In this study, the coefficient of determination was also calculated. The coefficient of determination (R-square) is one of the most powerful measures used in evaluating a structural model. The R-square, which measures the predictive accuracy of the model, is the amount of variance in the dependent variable as explained by the independent variables used in the model. [21] suggest that the accepted threshold value of R<sup>2</sup> is 0.75, 0.50, or 0.25 for endogenous latent variables, which can be respectively described as substantial, moderate, or weak. Table 5 shows the R<sup>2</sup> and adjusted R<sup>2</sup> values for the present study.

**Table 5: Results of Coefficient of Determination (R<sup>2</sup>)**

Variable	R square	R Square adjusted
Career Management	0.573	0.558

As shown in Table 5, R<sup>2</sup> was identified as a moderate value of .573. Therefore, job rotation should be considered important to career management. Results in Table 5 also revealed that the adjusted R<sup>2</sup> for career management as a dependent variable in this model was 0.558, which means that constructs.

## 6. DISCUSSION

The results of this study help us better understand how job rotation and career management relate to one another from a Technology-Organization-Environment TOE perspective. The study demonstrates that job rotation has a beneficial effect on career management, showing that people who rotate their jobs benefit from improved possibilities for career development and better career outcomes [3-15]. The study emphasizes the impact of technology on career management as one important component. The findings show that career management is favourably impacted by technological advancements. This study implies that technological developments and the adoption of new work tools and systems can give people that place a high priority on technological innovation and offer staff members the chance to interact with new technologies through job rotation might promote a more conducive atmosphere for career management [27-35-40].

The study also underlines how organizations play a part in determining the results of career management. The findings show that adjustments to the organizational setting have a favourable effect on career management. This suggests that elements like organizational structure, culture, and policies are key in facilitating possibilities for professional growth. Companies that encourage job rotation through initiatives like mentoring programs, performance-based rewards, and clearly defined career paths are more likely to help people manage their careers. The study also emphasizes how the environment affects career management. More general technological, organizational, and environmental aspects when developing career management methods. Organizations can promote a culture that supports career development and advancement by coordinating job rotation programs with these elements [4-31]. Additionally, people might gain from actively looking for job-rotation possibilities that support their professional goals and take advantage of external trends and technical improvements in their respective industries. It is important to note that the focus of this study is on the benefits of job rotation for career management.

The results imply that improvements in the external environment have a beneficial influence on career management. This suggests that elements like market dynamics, industry trends, and economic situations can either present possibilities for professional growth or present obstacles to it. People can navigate their careers

more successfully when their employers adjust to the external environment and offer work rotation chances that are in line with new trends. The study's findings emphasize the significance of taking into account the interaction between job rotation and It's crucial to understand, though, that job rotation may not necessarily have a favourable impact on everyone. Some people might favour consistency and specialization in their jobs over frequent role changes. Additionally, to guarantee the ideal balance between employee development and operational effectiveness, job rotation programs need to be handled thoughtfully, taking individual preferences, competencies, and organizational needs into account. The long-term effects of job rotation on career trajectories, the precise mechanisms by which technology, organization, and environment factors affect career management, and potential moderating factors that may have an impact on the relationship offer more in-depth understandings of the dynamics of job rotation and its effects on career management across a range of organizational situations [2-8-9-28].

## 7. THEORETICAL AND PRACTICAL CONTRIBUTION

This study promotes career management theory and practice in a number of ways within the Technology-Organization-Environment TOE framework:

Job Rotation and career management, the study closes a gap in the body of knowledge. Job rotation's effects on employee development and organizational effectiveness have been the subject of substantial research, but less attention has been paid to how it specifically relates to career management [39]. The study advances our theoretical knowledge of how individuals' professional success and advancement can be influenced by job rotation by examining this connection. Additionally, the study uses the TOE framework as a theoretical lens to examine the effects of job rotation on career management. This concept takes into account how the environment, organization, and technology interact to shape organizational outcomes. The study offers a thorough understanding of how these three aspects affect people's professional experiences and outcomes by using this framework to the context of career management. Through analyzing the connection between job rotation and career management, the study looks at how changing jobs affects career management while taking into account factors such as technology, organization, and environment. The study provides a detailed view of these elements' influence on career management by examining their effects both singly and jointly [23]. By emphasizing the significance of taking into account multiple contextual elements in determining career outcomes, this multidimensional study contributes to the larger literature on career management. The study also underlines the value of including work rotation in initiatives for career development. Employers can utilize job rotation as a technique to give their staff members a variety of experiences, education, and training that will help them advance their careers [12]. Organizations can establish a supportive environment for employees' career growth by matching job rotation possibilities with the unique technological, organizational, and environmental elements relevant to their business [46]. The study emphasizes how crucial it is to match organizational practices with goals for career management. To encourage employees' career advancement, organizations might offer mentorship programs, defined career routes, and performance-based awards. Additionally, businesses should promote a culture that appreciates and supports job rotation, encouraging staff to take on new responsibilities and learn new skills [1-10-24].

## 8. CONCLUSION

In summary, this study looked at how job rotation affects career management within the Technology-Organization-Environment (TOE) framework. The results showed that career management benefits significantly and positively from job rotation. The study emphasized the significance of taking organizational, technical, and environmental elements into account when determining how people's career experiences are shaped. In order to fill a vacuum in the between these constructs, the theoretical contribution involves integrating career management and job rotation inside the TOE framework. The report offers recommendations for firms looking to improve career management by implementing job rotation as a strategy for employee development and developing a positive work environment. Organizations may support employees' career advancement and success in the modern, dynamic workplace by putting the study's results into practice. literature and deepen our understanding of the interrelationships.

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