

Antecedents and Consequences of Employee Well-Being: Empirical Study on Saudi Aramco

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ABSTRACT

This study addresses how employee well-being and knowledge sharing behavior can be managed within challenging work factors in the workplace environment. Besides identifying antecedents to well-being, it also seeks to examine the impact of well-being (psychological, physical, and social) on knowledge sharing behavior (tacit and explicit). The methodology of research in the present study is quantitative. The survey technique was used in data collection, it was conducted among 362 Saudi Aramco employees using the judgmental sampling method. Smart PLS was used for analyzing data. The findings illustrated that 1. Job hazards were found to affect the physical well-being of employees significantly. 2. As a result of improvement in physical and social well-being, better knowledge-sharing behavior in both tacit and explicit dimensions was demonstrated. In specific, tacit knowledge-sharing behavior is motivated more by physical well-being while explicit knowledge-sharing behavior is by social well-being. 3. Workplace conflict is found positively related to social well-being, contradicting hypothesized relationship. This seems to indicate Saudi Aramco employees embrace differences in view, beliefs, and feelings at work, and open discussion of conflicts enhances their social well-being. This study provides ideas to human resource management on strategies to enhance employee well-being for improved knowledge sharing

behavior. Also, managers are encouraged to use open debates of differing views to resolve work matters professionally. This study deviates from current employee well-being studies by recognizing three different types of employees well beings (psychological, physical, and social) that contribute differently to knowledge sharing behavior. Also, it identifies factors that determine employee well beings.

Keywords: Saudi Aramco, Employee well-being, Challenging work factors, Knowledge sharing behavior

INTRODUCTION

Owing to changes in the domestic and global economy, increased competition, and the rapid rate of technological change, more organizations in the 21st century, are giving employee well-being more prominence. Many research studies on employee well-being have been explored in recent decades by multiple researchers based on their various motives, recognitions, and points of view. Maslow's hierarchy of needs (1970)[See. 1], DeNeve and Cooper's goal-directed behavior (1998)[See. 2], and Heady and Wearing's dynamic equilibrium model are among them (1989)[See. 3]. Several researchers attempted to clarify the concepts behind employees' well-being and its outcomes [4-9]. Moreover, many concepts suggested by experts were different, and all of them appear to conceptualize and understand employees' well-being and the challenging work factors. According to the concept of organizational behavior, this research reinforces Maslow's theoretical concept, organizational culture, and well-being to create an integrative understanding of the challenging work factors that could affect individuals' information sharing behavior in the sophisticated organizational environment like Aramco.

Maslow's hierarchy suggests that employees' well-being is ensured if their needs are satisfied [10]. This model involves a set of needs in the form of a pyramid with the simplest requirements at the base, while demands concerning self-actualization are placed at the peak. Maslow said that every level in the pyramid is of great significance, and one would move to the next level when the needs in the past level were satisfied. The levels are five in number, along with the needs that are at the base [11]. Primary needs are the basic demands of life, for instance, water and shelter. These needs determine the state of a person concerning their health and ability to work in an organization. The next level involves safety needs which generally guarantee the serenity of an employee. This level includes things such as job security that guarantee a long-term advantage from their respective workplaces.

Additional, employees want to be connected to maintain a sense of belonging. This involves the sensation of focus, love, and familiarity with members of the organization in their daily interactions in the workplace [11]. After this level is achieved, one elevates to the level of self-esteem. Employees tend to possess a need to be noticed and appreciated for their efforts and contribution to the organization [12]. This involves gaining respect from the rest of the employees in the organization. The elite level within this pyramid is the self-actualization level. Within this level, employees tend to focus on perfecting their crafts and abilities. This can involve an employee venturing to enhance their skills or perhaps learning a new set of skills that they feel is important for their lives and well-being [13]. Aramco is the leading oil and gas company in Saudi Arabia; it has many employees from different fields, including the area of energy, who aspire to make a transition in their lives at one point in their careers. Satisfying their requirements and seeking methods to go up in the job level is a huge requirement. Because

most people want the fulfilment of these needs within their own lives, Maslow's theory is applicable in this circumstance [14].

In recent studies, the outcomes of EWB, such as knowledge sharing behavior (KSB), have been examined by many experts [4-9]. However, KSB and EWB findings were mixed. Based on Bandura (2001), it is crucial to analyze context-specific rather than overall EWB. As a result, the current research intends to examine the subdimensions of well-being. The current research is based on studies which suggest that welfare should be viewed as a multidimensional construct which is more accurate as a single aspect of well-being is insufficient to fully explain the different outcomes of information sharing behavior (i.e., tacit versus explicit) [15]. Currently, as workloads increase, so are fatigue, job hazard, and work conflicts. Thus, EWB, including social, physical, and psychological [16] of the nasty workplace nature in the oil and gas industry may be compromised, and may affect employees' knowledge sharing behavior. This research will further investigate the relationships among work factors, EWB and KSB.

Moreover, within the literature of EWB, the examination was based on the psychological dimensions as suggested by the conservation of resources theory, which lacks the role of physical and social dimensions proven by previous studies [4-9]. Hence, taking into consideration the role of these two dimensions' relevance to the oil and gas industry, we investigate all three dimensions of EWB. This industry associates with higher level of physical hazard exposure which may affect physical well-being, besides creating social stress in social well-being of the employees. The involvement of these two dimensions will contribute to the theoretical body of the conservation of resources theory.

Despite the many positive organizational approaches linked to employees' health, organizations have generally focused on diminishing workers' pressure as opposed to expanding workers' well-being [17]. Fatigue happens when there is an apparent inequality between individual resources and work circumstance [18]. Fatigue is associated with diminished efficiency and thus decreased advantage [19], inciting corporations to concentrate on applying stress relief measures [20]. Fatigue may be related to EWB, but the literature did not report which aspect of EWB (psychological, physical, and social) is compromised by fatigue. Similarly, work challenge factors that are likely to explain the physical WB and social WB were not sufficiently reported in the literature. Knowing correspondent factors from each dimension of EWB is important for knowledge advancement and companies to manage EWB more effectively.

The Saudi Arabian Oil Company (Aramco) employs over 65,000 employees in its operations in oil creation, exploration, marketing, refining, and international shipping. Given that the petroleum industry in Saudi Arabia, dominated by Aramco, is a fundamental contributor to the Saudi Arabian economy, the well-being and knowledge sharing of employees in the industry is of utmost importance to its performance [21]. However, the relationship between employee well-being and their knowledge-sharing behavior in the Saudi Arabian petroleum industry has not been addressed sufficiently in the literature [21]. Understanding how employee well-being impacts Aramco employees' willingness to share their experience may significantly influence human resource policies pertaining to employees' job satisfaction and performance [22].

According to Amin H. Nasser, the president and CEO of Saudi Aramco, "The oil and gasoline sector is centralized on enhancing the well-being of everybody who works in or is affected by our segment". Overall health and emotional wellness, specifically, have been in high demand among individuals. Aramco have distributed a few guides throughout the years, including the mental dangers of expulsion and the evaluation and management of weaknesses. However, there is still a need for more programs to increase the well-being of employees in the oil companies like Saudi Aramco [23].

LITERATURE REVIEW

The Employee Well-Being

Employee well-being (EWB) is defined very differently across the literature. Some defined EWB narrowly, [24] explained EWB as "quality of working life or quality of work life". However, some defined the EWB broadly, where [25] EWB is described as "employee mental health which is related to physical, psychological and social well-being". Researchers are difficult to compromise on a single basic term of EWB, which may be due to the large number of words and idioms used by researchers when referring to EWB or a general idea. Some [25] investigated working environment well-being and employee mental health, whereas Wright [26] investigated psychological well-being (PWB).

Authors prefer to go from one EWB to another, implying that there is no major difference in terms. Some [24] claimed that quality of working life (QoWL) is conceptually equivalent to EWB, whereas others [27] claimed that quality of work life (QWL) is related to EWB. Several researchers adopted other definitions of well-being since psychologists from various branches of psychology have provided a different description of welfare [28]. Some studies [29] adopted the definition of well-being by the World Health Organization (1946), which specified well-being as a three-dimensional concept comprising of physical, psychological, and social faculties. As stated by Boxall and Macky [30], EWB contained enjoyment, health, and relationship aspects. Juniper, Bellamy [31] adopted the definition of work-related well-being in health-related quality of life clinics, whereby it is referred to as part of an employee's total well-being, which they perceived to be determined chiefly by their work and is influenced by workplace interventions. Meanwhile, Ryan and Deci [32] surmised that there are two main theoretical views in the context of well-being: one related to happiness such as hedonism, and the other in recognizing individual capability like eudemonism [33]. Despite these definitions that offer an overall idea of well-being, they do not provide a consistent explanation.

Some [25] suggested a thorough model that includes three main components of employee well-being, namely employee well-being (EWB), workplace well-being (WWB), and psychological well-being (PWB). As stated by Diener and Chan [34], EWB refers to an individual's judgment of these life qualities based on their private ideals [33]. In short, there is a general understanding of EWB that seems energetic, subjective in character, multi-faceted, and also unique to task satisfaction. Additionally, EWB describes a psychological condition. There continue to be mixed perspectives around the workplace facets it adopts, its relationship using nonwork domain names, and the way overall well-being and physical well-being could be linked to the concept [33].

The Challenging Work Factors

EWB and PWB evolved out of concerns about the insufficiency of overall well-being [35, 36]. At the present time, most researchers characterize the idea and undertones of EWB for being an after-effect of this exploration. A few earlier research by Rice, Near [37], Rode [38] claimed that general well-being does not adequately measure welfare. Furthermore, Page and Vella-Brodrick [25] found that combining business-related and general welfare stages can provide a more accurate evaluation of EWB than using EWB solely.

Some EWB context-specific steps and models are designed to assess thoroughly the action of operating independently. These methods represent alternative approaches to precisely gauge well-being. Traditionally, scientists have evaluated worker pleasure, whether comprehensively or as a summation of progress, within various occupation spaces [39]. Different researchers have also indicated that EWB needs to encompass work-related and nonwork-related conditions [25].

Furthermore, various researchers have stated that employees' well-being ought not only to assess workers' job and overall fitness, but also the relationship of family and life well-being [40]. To that end, literature [25] have contended that EWB needs to be evaluated with EWB, PWB, and job-related influence, together with job satisfaction. EWB incorporates life assurance and tendencies outcome, whereas PWB encompasses labor gratification and job-related effects. Both tendencies are work-related, and disturbances include optimistic and harmful mechanisms.

PWB comprises six measurements: self-acceptance, positive relationships with others, environmental mastery, autonomy, personal growth, and purpose in life [25]. However, in society, both work and family are considered as whole regions of an individual's life. We determined that including holistic idea is appropriate in organizations. The theoretical model by Page and Vella-Brodrick [25] has not yet been supported by other researchers. This model made no recurrence. Thus, in this research, the quantitative model is used to recognize this and explore the concept of EWB in the company's circumstance.

Knowledge Sharing (Tacit and Explicit Knowledge)

Knowledge sharing includes exchanging ideas in order to create new knowledge. It usually happens when information travels between two people or from a person to an organization [41]. Information can flow from the highest levels of an organization to the lower levels, among coworkers, or from the bottom up. The knowledge stream might occur through email exchanges, conferences, and other programs such as an intranet or internet page.

Rivera-Vazquez, Ortiz-Fournier [42] observed that sharing is a practice where individuals commonly exchange information to form a new understanding collectively. Van Den Hooff and De Ridder [43] stated that sharing is a process of sharing and collecting knowledge. The authors used the terms understanding, managing, and information sharing to characterize the information sharing process. The authors' conceptualization of knowledge sharing (knowledge gathering and instruction contributing concept) is widely adopted and used by researchers and scholars who carried out studies and research on knowledge sharing and employees' relationship [44].

Many studies on knowledge management (KM) have rejected the positivist concept of knowledge as absolute truth in favor of accepting that there are various forms of knowledge [45]. For example, Nonaka [46] posited that there are four styles of knowledge conversion, namely socialization, externalization, combination, and internalization, depending on whether knowledge is converted between tacit, explicit, or in the same mode. In line with this literature, unique assortments of human understanding are categorized in many ways, such as the influential work of Polanyi [47] with regards to tacit knowledge. In his publication, Polanyi [47] states that what we know is more than what we can put into words. Tacit knowledge encompasses so much knowledge that it is not possible to separate nor be reproduced into a document or database [48].

The Challenging Work Factors and Employee Well-Being

Fatigue is often a risk factor behind human errors [6, 9, 49]. According to Davis [50], well-trained individuals periodically make mistakes, accept an occasional blunder, or modify assigned tasks to minimize unwanted incidences such as collapse. Lamond and Dawson [51] claimed that fatigue could result in a performance impediment that is equivalent to or higher than 0.1 percent of Blood Alcohol Concentration (BAC). This level is deemed unsafe for driving a crane or operating hazardous gear. It is four times more inclined to contribute to work accidents than alcohol or medication. Despite the danger of fatigue and its unwanted effects, little is understood on how businesses address it.

Fatigue is considered a complex issue that includes physical, mental, and emotional stress [6, 9, 49]. It usually occurs following the nature of a job, such as work overload [52] and overtime duties [53]. The stress level resulting from fatigue can compromise one's psychological well-being [52]. For instance, incomplete or inadequate communication that may occur between a supervisor and an employee will potentially lead to a strained relationship and compromised supervisor support, which in turn will affect the psychological well-being of the worker. Fatigue also creates mental stress as a result of the loss of energy, support, or communication, which leads to the worsening of psychological WB [54]. Thus, the following hypothesis was developed: H1: There is a negative relationship between fatigue and psychological well-being

Job hazard refers to the potential danger that individuals may face as they perform their duties at work. It comprises several aspects, including statutory (project insecurity), psychosocial (ability to create selections regarding job requirements, workloads, and occupation conditions), physiological (dangerous physical surroundings), as well as the talent to keep work-life stability [55]. Job hazard has been demonstrated to be a determinant for emotional well-being, job insecurity, excessive occupation requirement, poor job control, and job strain (high demands and low control) [56]. Nevertheless, empirical research has hardly evaluated whether job hazard demonstrates these outcomes in growing or transitioning markets such as Saudi Arabia. Furthermore, tackling the source of mental health is currently a concern for the World Health Association [57]. Some occupations have a combination of more than one danger, particularly for the non-skilled occupations.

Singh, Hinze [58] claims that factors like time pressure does affect the psychological state of employees and increases the chances of injuries. The constraint-response theory by Suraji, Duff [59] further confirms that emotional distress (dismal factors) can activate reactions that make poor schedules (proximal factors) and subsequently resulting in mishaps. An investigation by

Gyi, Gibb [60] also mentioned that behavioral issues such as employees failing to adhere to basic security guidelines could cause significant injury hazard. Such a claim is further supported by Haslam, Hide [61], who reported that employees' safety might be jeopardized by heavy workloads and different priorities. Thus, the following hypothesis was developed:

H2: There is a negative relationship between job hazard and physical well-being

Many scholars agree that cognitive conflict relates to the disagreement between two persons regarding the workplace happens very frequently. Such disagreement usually comprises the gaps in perspectives, ideas, thoughts, and remarks [62]. Also, disputes concerning the way resources are obtained, rules and procedures, as well as explanations and conclusions, can be included under these struggles [63]. Relationship conflict (often called hectic or socio-emotional conflict) arises when social incompatibilities exist among individuals, and it includes emotions such as strain, animosity, and annoyance [62]. For instance, two adult males who do not befriend each other may undergo a relationship struggle. This study signifies that job and relationship conflicts are associated with EWB.

Jehn and Bendersky [64] has pointed out that undertaking conflict as arguments increases stress and strain. This is because it serves as an extra weight on the employees' everyday function where extra time and effort are needed for them to be in a position while taking up the struggle across time. On the other side, some [65] has stated having a healthy relationship with others is also a significant human condition. In this regard, the absence of tranquility and quality relationship with other individuals may lessen health quality [66]. Hence, relationship conflict decreases the chances for standard human requirements to be satisfied by a particular job. Confronting relationship conflict within an organization, the high-risk jobs at Saudi Aramco might decrease the availability of societal guidance [67]. The adverse encounters that can be linked to this notion have destructive consequences [68]. Therefore, the connection between relationship conflict to the rise in damaging reactions should be recognized as a considerable threat to a person's well-being.

Empirical evidence behind this association with well-being continues to be limited, especially in organizations with significantly low energy and insecure jobs. According to these factors, the association between relationship conflict and diminished well-being is more powerful compared to the association between labor conflicts and reduced well-being [69]. Thus, the following hypothesis was developed:

H3: There is a negative relationship between work conflict and social well-being

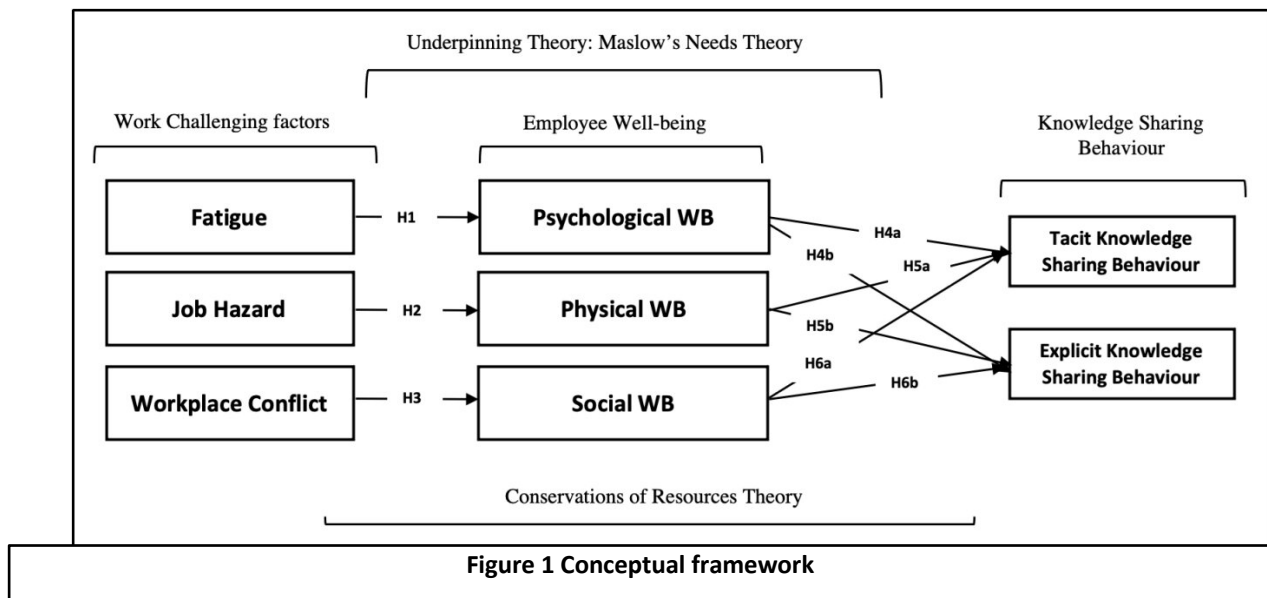
The Employee well-being and Knowledge Sharing (Tacit and Explicit Knowledge)

Prior researches on helpful feelings alongside the mental attributes of people have reported its potential effects on knowledge sharing conduct. Wasko and Faraj [70] believe that desirable psychological traits such as happiness and delight in assisting others have a positive influence on people's information sharing behavior. This is consistent with George and Brief [71], who proposed that people with positive attitudes and traits are more likely to provide ideas for development, enhance latent quality, protect their companies, and convey goodwill to others. A similar result is also reported involving other positive attributes such as spending time for voluntary activities, helping others and supporting, as well as promoting and protecting organizational objectives [72]. Such behavior is due to individuals' personality, linked with favorable feelings, and enhances their performance in their respective organizations.

Adding to the discussion, Carr [73] highlights that the fundamental notion of positive psychology comprises pleasure and well-being. Whereas Lyubomirsky, Sheldon [74] state that it is critical for virtually all human beings to desire long-term pleasure and well-being. Self-realization is one of the most important fundamental components of mental well-being [75], especially when it entails creating a meaningful relationship with other people. Self-realization refers to the higher feeling of resentment and warmth that enables most people to have higher love and deeper relationship. Such notion is supported by Shanafelt, West [76], who confirmed that one's feeling of well-being is meaningfully related to compassion. Also, the requirement for empathy and concern coincides with George and Brief [71], who proposed that individuals who are more joyful often view things from a different perspective.

By expanding the approach on the sense of well-being, a person's actual conduct, such as supporting others or discussing knowledge, might be improved, including their KSB. Knowledge sharing is an essential means through which employees can participate in innovation, knowledge application, and their company's competitive advantage [77]. Knowledge sharing amongst employees and across teams helps companies to capitalize and take advantage of knowledge-based resources [78]. A number of researches have demonstrated that knowledge sharing is associated with a significant decrease in the cost of production, quicker achievement of new product growth ventures, team performance, company innovation capabilities, as well as company performance, including sales development and income from new services and products [79]. This suggests that high EWB (happiness) is likely to positively drive helping behavior, including KSB. Thus, the following hypotheses were developed:

- H4a: There is a positive relationship between psychological well-being and tacit KSB
- H4b: There is a positive relationship between psychological well-being and explicit KSB
- H5a: There is a positive relationship between physical well-being and tacit KSB
- H5b: There is a positive relationship between physical well-being and explicit KSB
- H6a: There is a positive relationship between social well-being and tacit KSB
- H6b: There is a positive relationship between social well-being and explicit KSB



METHODOLOGY

Variables Measurement

In present study, the survey instrument contained two sections (Section A and Section B) which were measured by selected scales in the literature. Section A solicited the demographic background of the respondents. Section B measured the eight reflective study constructs, namely psychological well-being [80], physical well-being [81], social well-being [82], fatigue [83], job hazard [84], workplace conflict [62], and tacit and explicit KSB [41]. All items in this section were rated on a 5-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree.

Sample and Data Collection

The population of sampling is the employees of Saudi Aramco, with a population size of about 65,000 [85]. The sampling method was used to obtain a valid sample [86]. According to Krejcie and Morgan [87] table, the sample size requirement of this study was 382. However, to reduce sampling errors and non-response rate issues, 764 samples were invited to participate, where it was selected from the population by using purposive sampling technique.

Data for this research were gathered via delivery by hand survey. The survey instrument (questionnaire) was first developed in English, thereafter, translated to Arabic using the Brislin approach [For more information see, 88]. The instrument of the survey was consequently examined by the pilot study of two academicians, as well as 30 Saudi Aramco employees. A total of 377 responses were obtained. However, 15 responses were unusable and therefore discarded. The remaining 362 valid survey instruments were used for analysis in this study. The majority of the respondents were male and married at 97.00% and 74.00%, respectively. In terms of age, about 43.10% of them were between 41-50 years old. Respondents who hold a high school degree or equivalent made up 72.90% of the study population. In addition, 50% of the respondents had 11-20 years of industry working experience, while 43.90% had worked in Saudi Aramco for between 6 and 10 years. As for job positions, 53.30% of them were working as operational workers and earned between SR 5,000-SR 10,000 per month.

The Data analysis and Findings

SEM approach was utilized for testing the study model. SmartPLS3 statistical tool was employed to evaluate the SEM analysis. Following the two primary methodological elements in the evaluation of PLS models suggested by Hair, Ringle [89], where first, the measurement model is validated, subsequently, the structural model is evaluated.

The Measurement Model Evaluation

The Cronbach's alpha (α) value for all the reflective constructs is ranged between 0.625 and 0.787, fulfilled the recommended value of 0.60 [90]. On the other hand, using Jöreskog [91] guideline, all the constructs with CR ranged between 0.842 and 0.864 are considered satisfactory as they have exceeded the recommended value of 0.70 and higher. As seen in the table below, the findings also indicated that all the reflective constructs (i.e., explicit knowledge sharing behavior, tacit knowledge sharing behavior, and psychological well-being- thriving at work, feeling of competency, perceived recognition, and desire for involvement) correspond to a sufficient level of construct reliability and convergent validity.

Table 1: Results of construct reliability and convergent validity

Reflective Construct			Item	Outer Loading	α	CR	AVE
Explicit Behavior	Knowledge	Sharing	EKS1	0.805	0.700	0.864	0.759
			EKS2	0.933			
Tacit Knowledge Sharing Behavior			TKS1	D	0.625	0.842	0.727
			TKS2	0.830			
			TKS3	0.875			
Psychological Well-being							
(i)	Thriving at Work		PSYW1	0.749	0.787	0.863	0.611
			PSYW2	0.693			
			PSYW3	0.763			
			PSYW4	0.782			
			PSYW5	1.000			
(ii)	Feeling of Competency		PSYW6	D			
			PSYW7	D			
			PSYW8	D			
(iii)	Perceived Recognition		PSYW9	D			
			PSYW10	D			
			PSYW11	D			
(iv)	Desire for Involvement		PSYW12	D			
			PSYW13	D			
			PSYW14	D			
			PSYW15	1.000			
			PSYW16	1.000			

Note: D=item deleted; α =Cronbach's Alpha; CR=Composite Reliability, AVE=Average Variance Extracted

For formative constructs, using the bootstrapping technique, for fatigue, the study established that three out of six items were statistically significant ($p < 0.001$), one item (i.e., FAT 1) was non-significant, while two items (i.e., FAT 5 and 6) were eliminated due to negative outer weights. With regards to physical well-being, the majority of the items were significant ($p < 0.001$), except for PHYW4, PHYW6, and PHYW8 were deleted because of negative weights. While for social well-being, six items were found significant at $p < 0.05$ or $p < 0.001$, four items were non-significant, and five items (SOCWB11-15) were removed. In terms of workplace conflict, two items were significant ($p < 0.001$), three items were non-significant, and three items (i.e. WPC1, WPC5 and WPC8) were deleted owing to negative weights. In this study, all the non-significance indicators were retained to maintain the content validity. As highlighted by Hair, Sarstedt [92], the insignificant indicator should be kept in a formative measurement model to fully capture the domain of a construct.

Table 2: Results of formative construct

Formative Construct	Items	Outer Weight	Outer VIF	Std. Error	t-value	p-values
Fatigue	FAT1	0.029	1.011	0.075	0.383	0.702
	FAT2	0.370	1.509	0.045	8.171**	<0.001
	FAT3	0.428	1.594	0.044	9.666**	<0.001
	FAT4	0.450	1.305	0.064	6.977**	<0.001
	FAT5	D				
	FAT6	D				
Job Hazard	JH1	0.158	1.019	0.109	1.458	0.146
	JH2	D				
	R_JH3	0.924	1.011	0.067	13.744**	<0.001
	JH4	D				
	JH5	0.084	1.897	0.103	0.822	0.411
	JH6	0.019	1.192	0.109	0.172	0.863
	JH7	0.151	1.347	0.103	1.456	0.146
	JH8	0.130	1.302	0.099	1.315	0.189
	R_JH9	0.185	1.061	0.115	1.607	0.109
Physical Well-being	PHYW1	0.307	1.753	0.024	12.848**	<0.001
	PHYW2	0.292	1.514	0.021	13.939**	<0.001
	PHYW3	0.299	1.528	0.024	12.660**	<0.001
	PHYW4	D				
	PHYW5	0.244	1.252	0.034	7.272**	<0.001
	PHYW6	D				
	PHYW7	0.266	1.254	0.030	8.937**	0.000
	PHYW8	D				
Social Well-being	SOCW1	0.404	1.240	0.069	5.872**	<0.001
	SOCW2	0.253	1.313	0.059	4.278**	<0.001
	SOCW3	0.247	1.269	0.064	3.839**	<0.001
	SOCW4	0.157	1.172	0.075	2.105*	<0.050
	SOCW5	0.353	1.035	0.076	4.659**	<0.001
	SOCW6	0.372	1.186	0.071	5.227**	<0.001
	SOCW7	0.060	1.094	0.062	0.973	0.331
	SOCW8	0.054	1.459	0.062	0.869	0.385
	SOCW9	0.003	1.187	0.067	0.047	0.963
	SOCW10	0.058	1.329	0.061	0.947	0.344
	SOCW11	D				
	SOCW12	D				
	SOCW13	D				
	SOCW14	D				
	SOCW15	D				
Workplace Conflict	WPC1	D				
	WPC2	0.070	1.025	0.104	0.675	0.500
	WPC3	0.600	1.038	0.083	7.245**	<0.001

WPC4	0.642	1.037	0.080	8.068**	<0.001
WPC5	D				
WPC6	0.141	2.232	0.089	1.582	0.114
WPC7	0.160	2.260	0.093	1.710	0.088
WPC8	D				

Note: ** $p < 0.001$; * $p < 0.050$; D=Item Deleted due to negative outer weight; VIF=Variance Inflation Factor

Structural Model Evaluation

Once the goodness of the measurement model has been evaluated, the subsequence stages are to examine the hypothesized association between variables by utilizing the PLS Algorithm and assessed the predictive power of the model through estimation of the (R^2) values, size of effect (f^2) and Predictive Relevance (Q^2).

Assessing Path Coefficients

In PLS-SEM, a bootstrapping technique was applied to test the degree of significance for all paths. Specifically, the bootstrapping result showed that the relationship between fatigue towards psychological well-being is not significant (H1: $\beta = -0.074$, $t = 0.622$); thus, H1 is not supported. On the other hand, job hazard shows a significant negative relationship with physical well-being (H2: $\beta = -0.415$, $t = 9.712^{**}$), H2 is supported. Although workplace conflict is found significant towards social well-being (H3: $\beta = 0.452$, $t = 8.728^{**}$), H3 is rejected because the direction is contradicting with the hypothesized direction in the earlier stage. Subsequently, psychological well-being is not significant towards tacit knowledge sharing behavior (H4a: $\beta = -0.029$, $t = 0.619$) and explicit knowledge sharing behavior (H4b: $\beta = -0.071$, $t = 1.171$), H4a and H4b are rejected. Additionally, both physical well-being (H5a: $\beta = 0.355$, $t = 6.218^{**}$; H5b: $\beta = 0.220$, $t = 4.248^{**}$) and social well-being (H6a: $\beta = 0.239$, $t = 3.829^{**}$; H6b: $\beta = 0.350$, $t = 6.128^{**}$) illustrate a positive significant relationship on tacit and explicit knowledge sharing behavior. Therefore, H5a, H5b, H6a, and H6b are supported. Appendix A shown the figure of results of path coefficients.

Table 3: Results of VIF and path coefficients

Hypothesis	Path Relationship	Std. Beta	Std. Error	t-values	p-values	VIF
H1	FAT $\rightarrow$ PSYW	-0.074	0.119	0.622	0.267	1.000
H2	JH $\rightarrow$ PHYW	-0.451	0.046	9.712**	<0.001	1.000
H3	WPC $\rightarrow$ SOCW	0.452	0.052	8.728**	<0.001	1.000
H4a	PSYW $\rightarrow$ TKS	-0.029	0.048	0.619	0.268	1.015
H4b	PSYW $\rightarrow$ EKS	-0.071	0.060	1.177	0.120	1.015
H5a	PHYW $\rightarrow$ TKS	0.355	0.057	6.218**	<0.001	1.327
H5b	PHYW $\rightarrow$ EKS	0.220	0.052	4.248**	<0.001	1.327
H6a	SOCW $\rightarrow$ TKS	0.239	0.062	3.829**	<0.001	1.311
H6b	SOCW $\rightarrow$ EKS	0.350	0.057	6.128**	<0.001	1.311

Note: Fatigue (FAT), Job Hazard (JH), Workplace Conflict (WPC), Psychological Well-being (PSYW), Physical Well-being (PHYW), Social Well-being (SOCW), Tacit Knowledge Sharing (TKS), Explicit Knowledge Sharing (EKS).

Assessing the Coefficient of Determination (R^2)

The psychological well-being, physical well-being, and social well-being accounted for 25.30% ($R^2= 0.253$) and 26.60% ($R^2= 0.266$) of variance in tacit and explicit knowledge sharing behavior, respectively. The direct influence of job hazard accounted for 20.50% ($R^2=0.205$) of variance in physical well-being, while workplace conflict resulted in 20.40% ($R^2=0.204$) of variance in social well-being. Furthermore, fatigue accounted for only 0.50% ($R^2=0.005$) of variance in psychological well-being.

Table 4: Result of the coefficient of determination, R^2

Endogenous Construct	R^2
Explicit Knowledge Sharing Behavior	0.253
Physical Well-being	0.205
Psychological Well-being	0.005
Social Well-being	0.204
Tacit Knowledge Sharing Behavior	0.266

Assessing Effect Size (f^2)

The study also showed that fatigue ($f^2=0.006$) exhibits a trivial effect size on psychological well-being, while both job hazard ($f^2=0.244$) and workplace conflict ($f^2=0.272$) exhibit a medium effect size on physical well-being and social well-being. In terms of tacit knowledge sharing behavior, psychological well-being ($f^2=0.001$) resulted in a trivial effect size, whereas physical well-being ($f^2=0.143$) and social well-being ($f^2=0.035$) produced a small effect size. Similarly, both physical well-being ($f^2=0.053$) and social well-being ($f^2=0.092$) have a small effect size on explicit knowledge sharing behavior, while psychological well-being ($f^2=0.009$) has a trivial effect size. That is, tacit knowledge-sharing behavior is motivated more by physical well-being while explicit knowledge-sharing behavior is by social well-being.

Table 5: Result of effect size (f^2)

Hypothesis	Path Relationship	Effect size, f^2
H1	FAT $\rightarrow$ PSYW	0.006 (Trivial)
H2	JH $\rightarrow$ PHYW	0.244 (Medium)
H3	WPC $\rightarrow$ SOCW	0.272 (Medium)
H4a	PSYW $\rightarrow$ TKS	0.001 (Trivial)
H4b	PSYW $\rightarrow$ EKS	0.009 (Trivial)
H5a	PHYW $\rightarrow$ TKS	0.143 (Small)
H5b	PHYW $\rightarrow$ EKS	0.053 (Small)
H6a	SOCW $\rightarrow$ TKS	0.035 (Small)
H6b	SOCW $\rightarrow$ EKS	0.092 (Small)

Assessing Predictive Relevance (Q^2)

With the blindfolding technique, the result showed that the Q^2 values for explicit knowledge sharing behavior ($Q^2= 0.175$), physical well-being ($Q^2= 0.094$), psychological well-being ($Q^2= 0.007$), social well-being ($= 0.029$), and tacit knowledge sharing behavior ($= 0.177$) are greater than zero (see Table 5), demonstrating the presence of model's predictive relevance.

Table 6: Results of predictive relevance (Q²)

Endogenous Construct	Q²
Explicit Knowledge Sharing Behavior	0.175
Physical Well-being	0.094
Psychological Well-being	0.007
Social Well-being	0.029
Tacit Knowledge Sharing Behavior	0.177

DISCUSSION

The general purpose of the study was to present the basis for the improving factors affecting employee well-being in Saudi Aramco to enhance their working conditions. This may then motivate them to demonstrate more positive work outcome in the aspects of knowledge sharing behaviors.

The study did not support H1, fatigue did not significantly relate to psychological well-being, contradicting findings by several researchers [52, 93]. This could be due to the fact that work hours at Aramco were managed very well to the extent that fatigue is not an issue. Effective communication channels could also have existed in Aramco, where workers and their supervisors effectively communicate to each other which minimize strained relationships, which are likely to reduce fatigue from mental stress.

The study supported H2, implying that reduced levels of workplace hazards led to the improved physical well-being of Saudi Aramco employees. Ernst Kossek and Ozeki [94] claimed that the relationship between work conflicts and employees' social well-being is vague in multiple-work conditions, partly supporting this study's result, which explained why H3 was not supported as the result found a significant and positive relationship between workplace conflict and social well-being, in contrast to a negative relationship proposed for H3. This seems to suggest that employees of Saudi Aramco company embraced differences in views, beliefs, and feelings. The more the controversial opinions were shared openly and resolved professionally, the closer their relationship became, and this is reflected in enhanced social well-being. Still, this explanation may not be plausible considering the assumption laid in the conservation of resource theory, where Hobfoll [95] asserted that work conflicts might reduce overall life satisfaction in line with this theory. Still, Reis, Sheldon [66], Semmer, Tschan [68], Hobfoll [95] views are opposed in the Ernst Kossek and Ozeki [94] study where they claimed that the relationship between work conflict and employees' social well-being become vague in a multiple-work condition analysis, partly supporting this study's results.

Saudi Aramco oil company is a diverse organization with numerous stratified departments of production, sales, administration, and managerial levels. Therefore, the impact of work conflict on the social well-being of various departmental workers may vary significantly from one employee to another in the different divisions. Considering Maslow's hierarchy of needs, sources of conflict at the production level would not be similar to those at the departmental helms since these two sets of employees have differing needs [96]. The un-uniformity of needs between different departments, resulted in the overall research finding that increased conflict levels correspond to improved social well-being, requires further studies.

The study supported H5 and H6, confirming the positive relationships between physical well-being and knowledge sharing behavior, as well as social well-being and knowledge sharing behavior. However, H4 that tested the relationship between psychological well-being and knowledge sharing behavior was not supported. This could be due to the reason reported by the study of Woodman and Jaoua [85] who found that only 37.6 percent of Aramco's employees suffer severe psychological consequences. This percentage indicates that mental stress among the company's employees is limited, leading to a statistically insignificant result that is broadly contradictory to literature findings. It also provides evidences to conservation of resources model where happiness is a type of resources that motivate to demonstrate positive work behavior, i.e, knowledge sharing behavior [97]. For example, in Hobfoll [98] study, found that knowledge is an important resource and knowledge sharing is an important way of obtaining resources. Therefore, when employees have more resources, it is easier for them to become involved in knowledge sharing.

Theoretical Implications

From a theoretical viewpoint, the study contributes to existing literature and stretches the boundaries of knowledge in the spheres of EWB and KSB. Consequently, it provides the basis upon which academicians and researchers can discover aspects that are of significance in the oil and gas sector in Saudi Arabia.

This study considered the impact of challenging organizational factors such as job hazards, fatigue, and work conflicts on the level of EWB and KSB among Saudi Aramco's employees. The results of this study thus broadly contribute to the understanding of the inter-relationships between the various types of EWB and KSB of employees within the framework of challenging work factors. The results add to the empirical evidence of how organizations employ multiple techniques to create an environment that enriches EWB, so as to get the best out of the employees and lead to higher performance. The two broad theories proposed in this study were the conservation of resources model and Maslow's hierarchy of needs. According to Hobfoll, Halbesleben [99], the COR theory suggests that people tend to seek, acquire, maintain, and cultivate what they appreciate. The theory was evaluated in the broad perspective of stress resulting from traumatic experiences and burnout, making it the best model upon which various aspects of EWB and their consequences on KSB could be assessed. Maslow's hierarchy of needs also explained the different results presented in the study. For instance, the finding that increased conflicts within an organization not necessarily result in low social well-being. Instead, in the case of Aramco, it is found that it led to improved social well-being. This could be due to the fact that openly dealing with work conflicts and resolve professionally may result in improved relationship, which helps in fulfilling belongingness needs as indicated by Maslow's Needs theory [1]. This, however, requires further research, considering the stratified nature of organizational departments which makes a source of conflict stress in one division not eliciting similar reactions in another.

Practical Implications

The current study on various elements of EWB and KSB is expected to contribute to the field of human resource management by signifying suitable strategies to enhance EWB for improved KSB. Since the relationship between EWB and KSB is an under-researched area, especially in the context of challenging work factors, the results are expected to be highly valuable for human resource management practitioners. Since job hazards negatively influenced physical well-

being, managers are suggested to improve job hazard perception by improving safety features at work, providing clear instructions, regular training and close supervisions. Occupational safety and health programs could be implemented in a fun manner such as competition among departments on innovative ways to improve safety standards. Similarly, technology innovation could be adopted to engage young workers in safety awareness and training, for instance, introduce a mobile apps which can detect chemical leakages.

Since workplace conflicts were found to promote social well-being, managers are advised to encourage open debates of differing views, with the aim to achieve most desirable and efficient decision. Majority of the respondents in this study were male (97%), operational workers (53%) with long working experience (11-20 years; 50%) in the oil refinery industry, they have vast experiences and ready to share controversial or conflicting views on how works can be carried out. They welcome differing views, the process of comparing various views and finding best solutions seem to enhance their sense of belongingness to the team, and hence elevated their social well-being. Managers can consider creating healthy face to face and virtual platforms for debates. Face to face meetings could be set with rules where debates in the meeting stays in the meeting room and should not be used as personal attack weapons. Virtual debates are made possible with the help of intranet forums, WhatsApp or Facebook groups, managers to monitor and ensure these virtual platforms are not misused.

Thus, the findings of this study have important implications for business managers, particularly in the oil and gas industry, where challenging work factors are significant. The results provide essential insights for these groups of leaders on the dynamics of people-centered concepts like well-being and knowledge sharing. Such awareness could be used to develop strategies for better human resource management.

CONCLUSION

This study established that job hazards significantly affect the well-being of employees. It also confirmed that improved employee well-being led to better knowledge-sharing behavior. Therefore, organizations should struggle to enhance the well-being of their employees to boost firm performance facilitated by such knowledge-sharing strategies. The current study on various elements of employees' welfare and knowledge sharing is expected to contribute to the field of human resource management in signifying suitable strategies of enhancing levels of employees' well-being for improved knowledge-sharing behavior. Since the study of the relationship between employee well-being and knowledge-sharing behavior is a thin research area, especially in the context of challenging work factors, the results are expected to be very valuable both for human resource management practitioners and in the academic realm.

LIMITATIONS

The study had three main limitations. First, the study's findings were derived from a small sample of employees. The sample may not have been representative of the entire industry, and hence cannot be generalized. Secondly, the respondents may have responded in socially desirable ways hiding their actual views and feelings while answering the research questions and failing to openly relay their dissatisfactions, if any, with their current jobs and their working conditions [100]. Third, the general approach applied in the current study was quantitative based, which gives research participants limited options of responses, considering the selections made by the researcher [101].

RECOMMENDATIONS FOR FUTURE STUDIES

To overcome the limitations mentioned above, future research should consider data collection opportunities, which allow investigation of these variables under similar context to develop knowledge on their influence over levels of employee well-being. The use of a small sample was the other limitation identified in this study. To overcome it, larger study populations should be used. Replicating the study on a global scale to consider other organizations in the oil and gas industry would be justified to establish the possible frontier for its applicability. Future studies should also establish measures of overcoming the limitations associated with quantitative research. To this end, this paper recommends that future studies should employ a mixed study methodology. The positive relationship between workplace conflict and social well-being were in contrast to earlier literature, additional studies are required to ascertain the relationship.

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APPENDIX

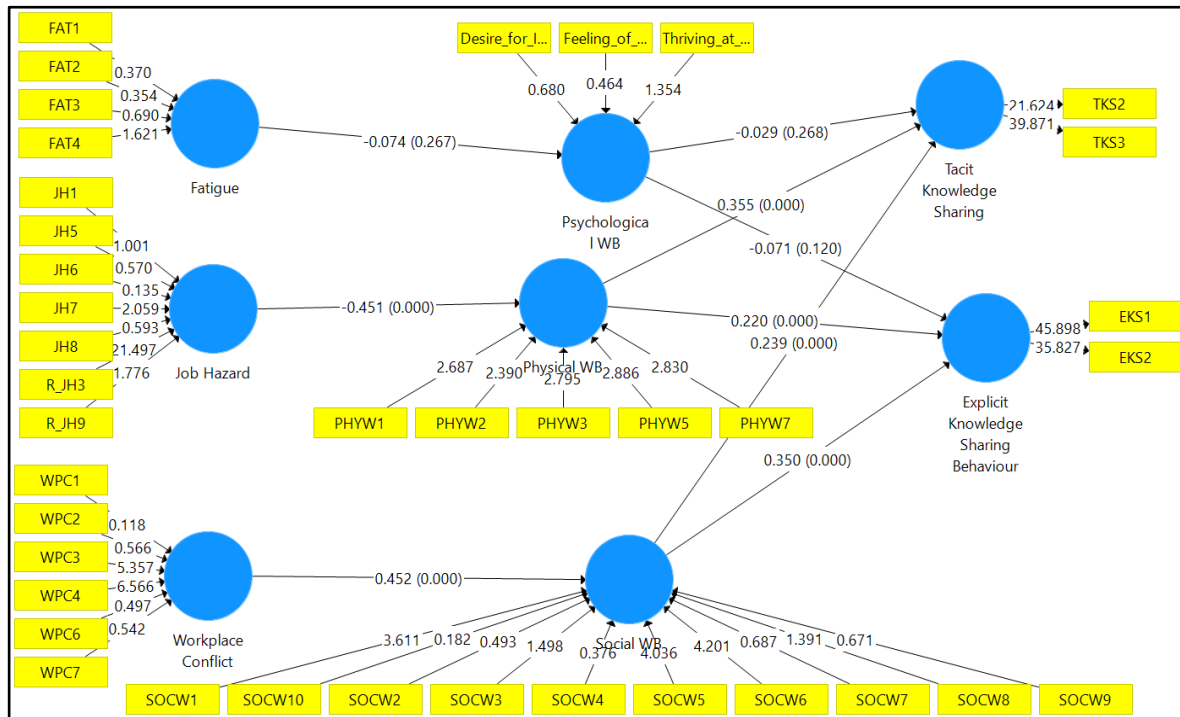


Figure 2: Results of path coefficients