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Quality of Work Life According to Walton's Model: Case Study of the Higher Institute of Defense Studies of Mozambique

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Abstract: The quality of life at work has been one of the most important aspects to be considered by a given organization to achieve pre-defined objectives. Thus, this research aims to analyze the level of satisfaction with the quality of work life (QWL) of the employees of the Higher Institute of Defense Studies “Lieutenant-General Armando Emílio Guebuza” (ISEDEF) according to Walton's model. A conceptual framework was built through a bibliographic and literature review. The instrument used for data collection was a questionnaire applied to 97 military and civilian personnel in August 2019. The results show that the general level of satisfaction with QWL is moderate, requiring an improvement in living conditions so that military education and training continues, as well as the development of models that enable the realization of benefits according to the social and economic level in the country.

Keywords: quality of work life; Walton model; satisfaction level; defense studies

1. Introduction

We are about to enter the third decade of the 21st century, and there are still great challenges regarding the management of human resources in organizations. The human factor is recognized as the most important organizational resource, which allows defining the prosperity and survival of organizations (Kwaha and Akuraun 2018). Quality of work life (QWL) has always been considered a constant concern for human beings (Rodrigues 1999). From a global perspective, people have a different view of life and work, which makes them compare cultures and creativity at work, as well as the flow of ideas and values (Ibrahim 2013). Thus, it is believed that organizations, given the importance of human resources, should attract and retain high-performing employees, providing them with better working conditions (Abe et al. 2017). At the management level, the assessment of the QWL of employees is seen as an alternative tool in people management. Organizations must adopt strategies to promote QWL to achieve organizational goals and respond to employees' needs (Barcelos 2013).

Although there are a few studies on the theme of QWL in Mozambique, there are even fewer studies in which the levels of satisfaction with QWL of employees in the public sector and public institutions of higher education in Mozambique were analyzed (Costa 2007; Serra 2006). Notable researchers such as Bailey et al. (2015, 2017) conducted a survey on QWL issues in the context of sub-Saharan Africa, which added some light to the topic. These authors determined the impact of the introduction of enterprise resource planning

(ERP) in sub-Saharan African countries (Kenya, Malawi, Mauritius, Mozambique, Reunion, Zambia, and Zimbabwe) and found that the introduction of ERP systems has a statistically significant and positive effect on job and career satisfaction, the home–work interface, general wellbeing, working conditions, control at work, and stress at work. However, with regard to Mozambican working conditions in particular, there are still some gaps in terms of the differences between the law and labor reality, work–family balance, and social protection from an early age (Lee 2012), which further highlights the importance of this investigation. Thus, the goal of this research is to assess the level of satisfaction with the quality of life at work of employees of the Institute of Defense Studies (ISEDEF). Using Walton's (1973) model, it was possible to identify positive and/or negative aspects that influence the quality of life of employees of that institution. Walton's (1973) model was chosen because it has been proven to combine the possible dimensions of QWL, as well as because of its application in different sociocultural contexts and because it is valid in terms of its applicability, e.g., (Costa 2007; Filho and de Almeida 2005; Freitas and Souza 2009; Siqueira et al. 2017; Serra 2006). To assist our study, the following research question (RQ) was defined:

RQ: What is the level of satisfaction with quality of life at work (QWL) among staff at the Higher Institute of Defense Studies Lieutenant General Armando Emílio Guebuza (ISEDEF)?

We also added the following objectives to this research:

- Objective 1 (OBJ1). To identify the dimensions of Walton (1973) that most contribute to satisfaction with QWL from the perspective of ISEDEF employees;
- Objective 2 (OBJ2). To clarify the relationship between the level of satisfaction with QWL and the dimensions of the studied model in the military context;
- Objective 3 (OBJ3). To explain the relationship between the dimensions of the studied model in the military context;
- Objective 4 (OBJ4). To identify measures that can be leveraged to improve QWL from the point of view of employees.

The main contributions of this research are, therefore, related to the identification of the four dimensions of Walton's (1973) model that most contributed to satisfaction with QWL. In addition, we identified three other dimensions which presented a moderate level of satisfaction, and one dimension which obtained a negative evaluation. Regarding the relationship between the QWL satisfaction level and the dimensions of the model, it was found that an increase in the level of satisfaction with one of the dimensions consequently increases the level of satisfaction with QWL in general. Our research also suggests that ISEDEF leadership should focus on developing conditions that allow for greater justice at work. Thus, it may be useful to create a mechanism that allows an efficient measurement of work and adequate compensation, such as financial benefits or other types of rewards. Finally, regarding the correlation between the general level of satisfaction with QWL and the dimensions of the model, this was shown to be positive and significant for seven of the eight dimensions.

The following section focuses on the literature review, where the concepts related to QWL are developed; next, we describe the material and methods used to explain the methodological procedure; then, we present the results of the case study; and in the last section, we refer to the conclusions, where the managerial and theoretical contributions are outlined.

2. Theoretical Background

The development of QWL studies is associated with human satisfaction studies (Serra 2006). In this regard, through several studies (Costa 2007; Serra 2006; Siqueira et al. 2017), an analysis of the determining influence of human resources on productivity was carried out, considering the guidelines of the theoretical framework developed by social scientists Fredrik Herzberg (2003) in the approach of the theory of motivation, also known as the theory of two factors; Abraham Maslow (1943), who contributed to the

theory of human needs; and Douglas [McGregor \(1960\)](#), who addressed theories X and Y. Concerning [Herzberg's \(2003\)](#) theory of motivation, it is concluded that there are two types of factors independent of each other: motivational factors, which refer to the set of intrinsic factors of nature that help to increase productivity, efficiency, and job satisfaction in a positive way ([Siqueira et al. 2017](#)); and hygienic factors, which are considered the working conditions that displease employees when absent and have little impact on employee motivation when present ([Freitas and Souza 2009](#)).

Abraham [Maslow \(1943\)](#) developed the theory of human needs in 1943. The author considered that motivation is established by a general impulse to satisfy human needs ([Walton 1973](#)). It is established through a pyramid called "Maslow's pyramid" and has five levels: physiological needs (e.g., food, rest, sex), security (i.e., protection against physical and emotional damage), occasional social needs (e.g., attention, acceptance, friendship), and needs linked to esteem (e.g., self-respect, achievement, autonomy) and self-fulfillment (e.g., growth, self-development) ([Fernandes 1996](#)). Within organizations, we can apply the [Maslow \(1943\)](#) pyramid, dividing it into two levels: extrinsic, low-level needs (remuneration, adequate workplace, and job security) and intrinsic, high-level needs that refer to the need for self-realization, that is, the search for their individualization to meet the highest inspiration of human beings ([Fernandes 1996](#); [Vasconcelos 1994](#)).

Douglas [McGregor's \(1960\)](#) theory is twofold, i.e., theory X and Y, and it can be said that these two theories are opposite behavioral models, considering that according to theory X, employees avoid and do not like work, which requires an environment of constant control, while according to theory Y, employees consider the activity carried out within an organization as a source of personal satisfaction ([Vasconcelos 1994](#)).

For a holistic understanding, we have described these three theories that refer to the factors that condition the behavior of employees within organizations. Bearing in mind the difficulty of empirically analyzing the three theories in the same study, we considered Herzberg's theory of two factors ([Herzberg 2003](#); [Kotni and Karumuri 2018](#)) to be one that allows us to better follow our research since we considered it relevant that individuals have a sense of self-realization through their efforts and not only due to external factors, but also due to motivational and hygienic factors ([Bueno 2012](#)).

2.1. QWL Concept

QWL is a research area that has evolved over the years and aims to assess the perception of employees' lives within an organization ([Ballard et al. 2019](#)). Today, QWL is described as fundamental to the success of organizations, as investment in human resources usually allows the achievement of a high level of productivity and job satisfaction for employees ([Barcelos 2013](#); [Costa 2007](#)). Although QWL has been discussed as an organizational process and as an attribute of the organizational environment, there is still no clear definition of this concept ([Ballard et al. 2019](#)). On the other hand, several authors consider QWL a set of actions that an organization implements to increase the number of improvements and innovations in management ([Ferreira et al. 2010](#)) and improve the way of thinking about people and work ([Costa 2007](#)) and about organizations by considering aspects such as fair rewards, compensation systems, benefit sharing, employee growth, work relationships, and opportunities for better participation ([Robbins 2002](#)).

2.2. QWL Evaluation Models

According to [Martel and Dupuis \(2006\)](#), the QWL model translates into a complex set of organizational interventions and the type of life that employees lead within an organization ([Simionel 2011](#)). For [Freitas and Souza \(2009\)](#), certain factors influence QWL, which are presented through models developed more than three decades ago, such as [Walton's \(1973\)](#) model, the [Westley's \(1979\)](#) model, and the [Hackman and Oldham's \(1975\)](#) model. These models are considered relevant to assess QWL studies ([Sant'Anna and Kilimnik 2011](#)). In addition to the models mentioned above, [Hammer and Zimmerman](#)

(2011) consider the following models: [Nadler and Lawler \(1983\)](#), [Quirino and Xavier \(1987\)](#), and [Siqueira and Coleta \(1989\)](#).

As previously mentioned, [Walton's \(1973\)](#) model was selected for this research because it combines the dimensions of QWL to be applied in different sociocultural contexts and because of its validity in terms of applicability in different types of research, e.g., ([Almarshad 2015](#); [Campomar 1991](#); [França and Pilatti 2004](#); [Walton 1973](#)). [Walton \(1973\)](#) proposed eight major conceptual categories/dimensions to evaluate QWL, namely:

- Fair and adequate compensation—suggests the relationship between the value that the employee earns with the position they hold. Adequate income for work refers to the value that allows the employee to live within personal, cultural, social, and economic standards;
- Safety and health in working conditions—considers that the working day is within the limits established by legislation and should not cause fatigue, stress, or absenteeism. As for the presence of a physical, safe, and healthy environment, the organization must respect safety standards, using personal protective equipment if necessary, and continuously seek to guarantee the physical and mental integrity of employees;
- Opportunity for use and capacity development—is defined as the possibility to take advantage of human capabilities immediately. It is divided into five subdivisions: autonomy, variety of skills, meaning of the task, task identity, and feedback;
- Career opportunities and security—aims to evaluate career opportunities within the organization, as well as the security of an employee's job;
- Social integration at work—allows analyzing the level of integration of employees among themselves and within the organization, based on harmonious coexistence, which can be assessed by the absence of prejudice, social support, marked hierarchical differences, and absence of favoritism among employees;
- Constitutionalism in the organization of work—refers to the rights and duties of employees. This includes privacy, freedom of expression, egalitarian treatment, and rules and routines;
- Work and total living space—the experience of employees in the organization which can positively or negatively influence their personal and social life. Attention should be paid to the time that the employee must have for family interaction without being affected by work and for the existence of beneficial physical activities;
- Social relevance of life at work—implies an adequate image of the organization that is achieved by being socially responsible and the benefits it provides to the community around it.

[Walton \(1973\)](#) considers that the eight dimensions established with the conceptual model to analyze QWL require various types of analysis, such as the relationship between the dimensions in practice, how each dimension influences productivity and the level of general satisfaction, and how some dimensions do not apply effectively to all employees of the same organization ([Walton 1973](#)).

Regarding the correlation between the eight dimensions, [Walton \(1973\)](#) considers that there is complexity between the eight dimensions, that is, an increase in the level of satisfaction with one dimension can consequently increase the level of satisfaction with another dimension, thus determining a direct relationship between them. There are cases in which an inverse relationship between dimensions can be verified, where a decrease in the level of satisfaction with one dimension can increase the level of satisfaction with another dimension. There are aspects that must be taken into consideration regardless of the type of approach that is used to maintain a QWL, such as cultural aspects, social classes, education, personality, and family integration in the growth of each individual ([Walton 1973](#)).

Empirical research similar to that in this article was carried out by [Tomasi and Choma \(2012\)](#), who used the [Walton's \(1973\)](#) Model and QWL, with the objective of evaluating the quality of life of forest workers in Paraná, Brazil. The authors observed that the highest job satisfaction rates are in relation to pride at work and the company's image. Conversely,

dissatisfaction was related to incentives for education, training, and personal protective equipment. Therefore, it was necessary to change the management style to promote the personal and professional growth of employees, in addition to promoting quality improvement and providing personal protective equipment. Cruz (2016) also carried out similar research aimed at quality of life at work in a Brazilian federal regional court in the light of the Walton's (1973) Model. The purpose of the research was to study the factors that interfered with the workers' quality of life. The study resulted in the identification of seven critical factors, such as salary, career plan, and occupational physical exercises.

3. Methods

3.1. Research Question and Instruments

This research follows the logic of a case study since it seeks to empirically study a social and current phenomenon within a real-life context (Campomar 1991). A quantitative methodology and correlational nature were used. Based on the type of research that was adopted, the measurement instrument used for data collection was a questionnaire survey, adapted from the questionnaire presented by Freitas and Souza (2009) and Kimura and Carandina (2009), who studied the model for the evaluation of QWL in higher education institutions.

The first part of the questionnaire presented questions made up of 24 items, following the Likert-type five-point answer format of (1) "Never", (2) "Rarely", (3) "Moderately", (4) "Frequently", and (5) "Always" and distributed according to the eight dimensions of QWL assessment in accordance with Walton's (1973) model.

The second section presented eight items that correspond to the same number of dimensions of Walton's (1973) model and is answered by placing the items in a degree of importance assigned to them, with 1 being the most important and 8 the least important.

To identify the perceived level of satisfaction with QWL of an employee, a Likert scale model (1 to 5 points) adapted from the model presented in (Júnior 2008; Timossi et al. 2009) was built in their surveys for the evaluation of the QWL index in organizations. The value of the average response for each dimension was determined by the weighted average of the responses given to the item in each dimension, and the final satisfaction level of the QWL for our study was determined by the weighted average of the eight dimensions that make up the model. This represents the average score.

3.2. Participants and Data Analysis (Dimensions and Variables)

A total of 97 ISEDEF staff members participated in the research, with 56 (58%) being male and 41 (42%) female. The majority were military personnel, with a total of 64 (66%), and the rest were civilian personnel, with a total of 33 (34%). Previous studies considered demographic information from the sample, such as age, work experience, and income. An example is the research by Bolhari et al. (2011), who studied the relationship between quality of life at work and demographic characteristics of information technology teams. However, our sample focused on gender issues. This choice is justified because of the question of originality since, while gender is used widely as a variable in regions such as the European Union and the United States of America, it is still not considered standard in African countries. Moreover, it appears that research in military universities tends to focus on students and not faculty staff. A notable example is that of Goertzel and Hengst (1971), who studied the Army Reserve Officer Corps cadets at the University of Oregon and a comparison sample of male college students. Their study allowed them to ascertain that Army cadets do not differ much from university students in terms of background variables, as there are significant differences in personality traits and attitudes related to the "military mentality". Another study by Levsen (2008) sought to analyze the ideals of masculinity of two elite groups, English and German university students. What it sought to demonstrate was that elite conceptions of masculinity, which were remarkably similar in the two countries before 1914, developed in contrasting ways after 1918. The aim of the research was to analyze whether World War I led to a crisis of masculinity or whether the

male ideal was strengthened by the war. Finally, a more recent study by [Scoppio et al. \(2020\)](#) aimed to examine gender differences in the experiences of 923 officer cadets who attended Canadian military schools and 135 officer cadets who attended civilian universities in North America (Canada). The study found that, overall, the experience of official cadets in civilian universities was more positive, gender neutral, and the values and culture of their institutions were more suited to them compared to those of their military counterparts in the faculty. The above studies have highlighted that, in addition to students, there is an underlying need to carry out research on staff in military universities. They also indicate that there is a greater focus on gender issues in Europe and North America, which justifies our choice to do the same for Africa.

Scientific research with regard to QWL in the public sector has focused on areas such as public courts or universities ([Costa 2007](#); [Cruz 2016](#); [Serra 2006](#)), and so far, there have been few cases focusing on military universities. In this regard, we highlight some of the few existing studies in the area, such as (1) [Paparone \(2003\)](#), who aimed to apply the competing values framework to study organizational subcultures and planning efforts in a military university system; and (2) [Dupré and Day \(2007\)](#), who studied the effects of support management and work quality on turnover intentions and on the health of military personnel. The choice of this unit of analysis will have been made for convenience, given that the authors of this article had privileged access to the military organization. Moreover, the existing literature identifies two types of sampling ([Mills et al. 2010](#)): probability and non-probability. Our focus was on probability sampling as it allows the researcher to generalize the results from the sample to the population ([Bloor and Wood 2006](#); [Merriam and Tisdell 2015](#); [Reis et al. 2018](#)). Probability sampling requires that each item in the universe have an equal chance of inclusion in the sample ([Kothari 2004](#)). Thus, the selected type was simple random sampling, in which each member of the population is selected at random.

The degree of reliability as a classic psychometric criterion was applied to assess whether the measurement instrument used in the survey produces the same response ([Haro et al. 2016](#)). Additionally, all validity check procedures were performed using IBM SPSS Statistics v25. The questionnaire was previously tested to allow adequate adjustments to the correct understanding of it. Table 1 below illustrates the dimensions of the model under study and the respective items.

Table 1. QWL satisfaction level scale (Adapted from [Júnior 2008](#); [Timossi et al. 2009](#)).

Very Bad	Bad	Moderate	Good	Excellent
Between 0 and 1	Between 1 and 2	Between 2 and 3	Between 3 and 4	Between 4 and 5

The items in the second block of the questionnaire aimed at gauging the factors that are part of Walton's eight dimensions considered important or less important for employees' perception of QWL satisfaction (Table 2). Thus, they were distributed as follows:

- I.2.1—Continuity of studies/courses on the specialization; appropriateness is guaranteed;
- I.2.2—Job security is guaranteed;
- I.2.3—The prestige of the institution is improved at the national level;
- I.2.4—Staff members have access to a professional career;
- I.2.5—It is possible to enjoy higher remuneration;
- I.2.6—A healthy working environment (lighting, hygiene, ventilation, material resources, internet) is ensured;
- I.2.7—There is no discrimination between civil servants and military personnel;
- I.2.8—Employees enjoy bonuses, or bonuses based on productivity.

Table 2. Dimensions on the QWL satisfaction level scale.

Dimensions	Items
D1—Safety and health in working conditions	(1.1) Work brings you worries and annoyances. (1.2) The way your superior makes considerations and observations about your work and your productivity causes you humiliation or other inconvenience in the face of co-workers. (1.3) Dust, noise, and heat make you feel unwell, damaging your health. (1.4) Tools and techniques for protection and safety at work are used. (1.5) Are medical examinations performed on admission? (1.6) Are periodic medical examinations performed?
D2—Work and total living space	(1.7) Do you have an obligation to take the job to be finished at home? (1.8) The organization organizes socializing events or leisure activities with employees and their families. (1.9) Your work negatively influences your family life. (1.10) Outside of work, you have time available for leisure and social activities. (1.11) Overtime is required.
D3—Constitutionalism in the organization of work	(1.12) You feel free to express your opinion to your superiors. (1.13) In your perception, treatment towards employees, regardless of sex, age, or occupation, is equal and without prejudice.
D4—Fair and adequate compensation	(1.14) You consider your salary to be adequate compared to your contribution to the institution. (1.15) You receive bonuses or bonuses according to your productivity.
D5—Career opportunities and job security	(1.16) There are promotions based on your competence and productivity. (1.17) There is an investment in your career through offers of scholarships to continue your studies or to take complementary or specialization courses.
D6—Opportunity to use and develop human capabilities	(1.18) You need to receive authorization from your superior to decide what, and how to do your job. (1.19) Information and knowledge about your work are enough to decide what and how to do your job.
D7—Social relevance of work life	(1.20) The institution where you work is recognized and has national prestige. (1.21) Are you proud to say where you work. (1.22) You participate in any social project or institution with the local community.
D8—Social integration in the organization	(1.23) There is a different treatment when dealing with a civilian/military officer. (1.24) Your opinion when carrying out group work is considered.

The next section presents the research results and the answer to the RQ (What is the level of satisfaction with quality of life at work (QWL) among staff at the Higher Institute of Defense Studies Lieutenant General Armando Emilio Guebuza (ISEDEF)?), following the objectives previously defined in the Introduction section.

4. Results

4.1. Construction Validity and Factor Analysis

For the present research, reliability analysis for the first block of the IQ was performed, and a Cronbach alpha coefficient of $\alpha = 0.69$ was determined to represent acceptable internal consistency (Freitas and Rodrigues 2005). For this purpose, the 24 items of the survey per questionnaire were considered, because all items present Cronbach alpha values which are higher than 0.6.

To check the adjustment of the data collected from the items built from the Likert scale, factor analysis was performed using the Kaiser–Mayer–Olkin (KMO) and Bartlett sphericity tests. The general KMO value was 0.701, and the Bartlett sphericity test was significant with $p = 0.000$ (Hair et al. 2005). Following the Kaiser criteria, eight components were extracted to validate the construction of our data and explain 67.98% of the total variation of the data. To have a better fit of the results obtained in the analysis of the main components, Varimax rotation was used.

In the matrix of rotating components, we observed that the results obtained were similar and produced a structure of eight components, with the first factor group containing three items (explained variance = 14%); the second, third, and eighth factor groups containing two items (explained variance of 12.9%, 9.87%, and 5.10%, respectively); the fourth and fifth factor groups containing five items (explained variance of 7.931% and 6.989%, respectively); the sixth factor group containing six items (explained variance of 6.80%), and the seventh factor group containing four (explained variance of 5.368%). The items I.1.11 (Do you have the obligation to take the work to be finished at home?), I.1.17 (There is an investment in your career through offers of scholarships to continue your studies, or to take complementary or specialization courses), and I.1.22 (Do you participate in some social project or Institution with the local community) present values lower than 0.4; however, factorial weight was redirected to other factors which were higher than 0.4, allowing us to keep these items (Hill and Hill 2016).

4.2. Study of the Correlation Matrix

Because they are non-parametric variables, Spearman's Rô correlation test was carried out to verify the impact that each dimension of the model has on the overall satisfaction level of QWL in the perception of employees. With this, we verified that the correlations are all positive and statistically significant except the dimension "work and total living space", which stands out for not presenting a significant correlation, although positive ($r = 0.147$; $p = 0.10$) (Table 3); that is, its weight does not significantly influence the overall satisfaction level of QWL.

Table 3. Analysis of the correlation between the QWL satisfaction dimensions and the dimensions of the model.

	QWL Sat	D3	D6	D5	D4	D1	D8	D7	D2
QWL Satisfaction	1.000	0.613 **	0.547 **	0.522 **	0.482 **	0.437 **	0.419 **	0.373 **	0.147
Meaning (2 ends)	—	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010

** Correlation is significant at the 0.05 level (2 ends).

Table 4 above, as mentioned by Walton (1973), shows that, according to the results, there is complexity in the correlation between the dimensions in practice, highlighting the "constitutionalism" dimension for presenting a significant positive correlation with six of the seven dimensions of the model. It is also noted that the dimension "work and total living space" presents a lower correlation with the other dimensions, with negative correlations with the dimensions "career opportunities and safety at work", "opportunity for use and development of human capabilities", and "social integration in the organization". It also only presents a significant correlation with the dimension "social relevance of life at work".

Table 4. Analysis of the correlation between dimensions.

Title 1	D1	D2	D3	D4	D5	D6	D7	D8
D1	1.000							
D2	0.056	1.000						
D3	0.282 **	0.090	1.000					
D4	0.081	0.037	0.294 **	1.000				
D5	0.241 *	−0.050	0.368 **	0.209 *	1.000			
D6	0.230 *	−0.005	0.345 **	0.157	0.675 **	1.000		
D7	0.094	0.306 **	0.330 **	0.209 *	0.078	0.064	1.000	
D8	0.093	−0.002	0.194	0.136	−0.036	0.142	0.225 *	1.000

* Correlation is significant at the 0.01 level (2 ends); ** Correlation is significant at the 0.05 level (2 ends).

4.3. Descriptive Analysis

In the Table 5, the percentage given for each item that makes up the dimension is described.

Table 5. Results of descriptive analysis.

Item	Never	Rarely	Moderately	Frequently	Always
I-1	46.4%	28.9%	12.4%	6.2%	6.2%
I-2	39.2%	34.0%	14.4%	6.2%	6.2%
I-3	17.5%	22.7%	20.6%	16.5%	22.7%
I-4	33.0%	19.6%	15.5%	14.4%	17.5%
I-5	30.9%	18.6%	8.2%	10.3%	32.0%
I-6	46.4%	22.7%	13.4%	4.1%	13.4%
I-7	53.6%	25.8%	9.3%	7.2%	4.1%
I-8	46.4%	26.8%	16.5%	4.1%	6.2%
I-9	49.5%	29.9%	9.3%	6.2%	5.2%
I-10	8.2%	13.4%	15.5%	20.6%	42.3%
I-11	48.5%	29.9%	10.3%	7.2%	4.1%
I-12	10.3%	22.7%	28.9%	16.5%	21.6%
I-13	20.6%	20.6%	28.9%	12.4%	17.5%
I-14	45.4%	9.3%	35.1%	3.1%	7.2%
I-15	63.9%	14.4%	12.4%	3.1%	6.2%
I-16	44.3%	27.8%	15.5%	2.1%	10.3%
I-17	35.1%	15.5%	13.4%	15.5%	20.6%
I-18	38.1%	12.4%	14.4%	13.4%	21.6%
I-19	8.2%	9.3%	27.8%	21.6%	33.0%
I-20	6.2%	10.3%	33.0%	9.3%	41.2%
I-21	15.5%	10.3%	21.6%	10.3%	42.3%
I-22	56.7%	17.5%	15.5%	2.1%	8.2%
I-23	14.4%	21.6%	28.9%	17.5%	17.5%
I-24	9.3%	22.7%	26.8%	14.4%	26.8%

The results obtained suggest that the perceived level of satisfaction with QWL among employees is “moderate”. It was possible to ascertain that Walton’s (1973) dimensions which contribute to satisfaction with QWL are constitutionalism in the organization of work, opportunity of use and development of human capacities, social relevance of life at work, and social integration in the organization, since they present a level of “good” QWL satisfaction according to the average of the obtained answers ($\bar{x} = 3.01$, $\bar{x} = 3.14$, $\bar{x} = 3.03$, and $\bar{x} = 3.14$, respectively). The other dimensions, “safety and health in working conditions”, “work and total living space”, and “career opportunities and safety at work”, have a “moderate” level of satisfaction according to the following averages: $\bar{x} = 2.46$, $\bar{x} = 2.26$, and $\bar{x} = 2.38$, respectively. The dimension “fair and adequate compensation” has a “bad” satisfaction level with QWL, with an average of $\bar{x} = 1.95$.

5. Discussion

In this section, we discuss the results of the research, and we also highlight the four objectives previously identified in the Introduction section which underlie the research. Throughout the text, objectives 1 to 4 (OBJ1 to OBJ 4) are therefore identified.

According to the data obtained, the dimension “fair and adequate remuneration” is considered a hygienic factor. This means that remuneration is not a factor that promotes satisfaction for workers, allowing to confirm Herzberg’s (2003) theory. The result of the level of employee satisfaction is correlated with the dimensions of the model. Within the study, the QWL satisfaction level can be positively and significantly correlated with seven (7) dimensions, although the dimension “work and total living space” is not significant but remains positive (OBJ1). It can be concluded that, with an increase in the level of satisfaction with one of the dimensions, the level of satisfaction with QWL consequently increases (OBJ2). The analysis of each level of significance has allowed us to order the dimensions in increasing order of significance: “constitutionalism in the organization of work”, “opportunity for the use and development of human capabilities”, “career opportunities and safety at work”, “fair and adequate compensation”, “safety and health in working conditions”, “social integration in the organization”, “social relevance of life at work”, and “work and total living space”.

Regarding the results obtained in the analysis that was carried out for each dimension of the model, we observe that the results for the dimensions “safety and health in working conditions”, “work and total living space”, “career opportunities and safety at work”, and “fair and adequate compensation” had the same results as in other investigations (Costa 2007; Serra 2006). The dimensions “constitutionalism in the organization of work”, “opportunity to use and develop human capacities”, “social relevance of life at work”, and “social integration in the organization” had similar results to other works (Filho and de Almeida 2005; Martins and Serra 2007; Siqueira et al. 2017).

Regarding the overall assessment of QWL, our study concluded that the perceived level of satisfaction with QWL among employees is “moderate”, as in other studies (Costa 2007; Serra 2006). On the other hand, they differ from other investigations that obtained a “good” level of classification of QWL using the same evaluation model (Filho and de Almeida 2005; Martins and Serra 2007; Siqueira et al. 2017).

Our results confirm Herzberg’s (2003) theory that remuneration, being a hygienic factor, is a working condition that does not cause employee satisfaction and can only help to avoid or not avoid dissatisfaction. We found in our study that remuneration does not prevent dissatisfaction. These results also show that the wage policy advocated by Walton (1973), which makes up internal equity, external equity, and adequate remuneration for work, is not beneficial to employees. The dimensions that present a moderate average response (safety and health in working conditions, work and total living space, career opportunities and safety at work) are related to working conditions and considered motivational factors, meaning that in general, their absence causes dissatisfaction in the employee, as defended by Herzberg (2003) and Walton (1973) (OBJ3).

Regarding the relationship between the dimensions and the level of satisfaction with QWL, we can see that the dimension “work and total living space” has a positive but not significant relationship. In other words, in the perception of employees, this dimension does not have much influence on their satisfaction with QWL. Thus, aspects related to the performance of recreational, social, and beneficial activities for workers have little influence on worker satisfaction (Fernandes 1996; Walton 1973) (OBJ4). This may be related to the fact that employees value other dimensions that are not yet satisfied.

6. Conclusions

This research aimed to evaluate the level of QWL satisfaction among ISEDEF employees using Walton’s (1973) model using the survey of the main factors that positively or negatively influence the level of satisfaction with QWL in that institution. The study was based on a sample of 97 ISEDEF employees, which corresponds to a questionnaire response

rate of 80.83%. From the analysis of the data obtained, it was concluded that the level of general satisfaction with the QWL of the employees is moderate. This result is equivalent to the studies carried out by [Costa \(2007\)](#) and [Serra \(2006\)](#), who carried out research on QWL in higher education institutions in Mozambique, using the same evaluation model.

6.1. Managerial and Theoretical Contributions

Regarding the analysis carried out for each of the eight dimensions, a “good” satisfaction level with QWL was observed for the following dimensions: (1) constitutionalism in the organization of work, (2) opportunity to use and develop human capabilities, (3) social relevance of life at work, and (4) social integration in the organization. The identified dimensions made it possible to reach the first proposed objective that aimed to identify the dimensions of [Walton \(1973\)](#) that most contributed to satisfaction with QWL. The dimensions (1) safety and health in working conditions, (2) work and total living space, and (3) career opportunities and job security, presented a level of satisfaction which was “moderate”. Lastly, for the “fair and adequate compensation” dimension scale, a “bad” satisfaction assessment was obtained. As for the relationship between the level of satisfaction with QWL and the dimensions of the model studied, it can be seen that an increase in the level of satisfaction with one of the dimensions consequently increases the level of satisfaction with QWL in general. Therefore, there is a relationship between the level of satisfaction with the ISEDEF classifiers and QWL (OBJ 2).

Regarding managerial contributions, our research suggests that ISEDEF leadership should focus on developing conditions that allow for greater justice at work. In this regard, it may be useful to create a mechanism that allows an efficient measurement of work (e.g., defining criteria such as the number of military missions carried out) and adequate compensations, such as financial benefits, career progression, or other types of rewards.

Regarding the correlation between the general level of satisfaction with QWL and the dimensions of the model, it was positive and significant for seven out of the eight dimensions of the model, with the exception being the dimension “work and total living space” which, although not significant, was also shown to be positive. These results allow us to conclude that the dimensions that make up the model were effective for our research. With regard to theoretical contributions, our article shows the appropriateness of using the [Walton’s \(1973\)](#) model in the military domain. Regarding the correlation between dimensions, we did not find positive correlations between all dimensions, as expected. As [Walton \(1973\)](#) explains, there is complexity between the correlation of dimensions since the average of the responses in many cases appears different due to the sociodemographic differences of the employees. For instance, we found that the perception of employees in the context of “work and total living space” does not have much influence on QWL satisfaction; therefore, aspects related to the performance of recreational, social, and beneficial activities for workers have little influence on worker satisfaction. Thus, it is necessary to invest in measures that can enhance QWL and that are identified in this research. To the best of our knowledge, to date, no study has focused on the quality of life at work in Mozambican military universities. This is perhaps because military institutions are restricted, and access to data is difficult. As a result, this article brings new contributions to the still scarce military literature.

6.2. Research Limitations

The main limitation of this research was due to the COVID-19 pandemic, which made it impossible to further explore data with ISEDEF workers. The time available for data collection was also considered limited, which culminated in a limited sample, due to the absence of personnel on vacation and others on a mission inside and outside of the country. Allied to this is the fact that the study was carried out in another country, which made it difficult to communicate with those responsible for human resources regarding the successive doubts raised during the research.

6.3. Suggestion for Further Research

Although the data of this research are exclusive to the institution studied, the results and knowledge presented here may contribute to future research on the subject in question. They also allow a longitudinal study to be carried out, verifying the different circumstances that influence QWL. Complementary studies in other areas of human resources are necessary, namely, in performance evaluation. In addition to the analysis carried out, this study allows a discussion on the theme that focuses on the wellbeing of people in organizations, and this will always be a fundamental factor because without people, organizations cannot achieve their goals. Finally, we also suggest the development of similar research at other African military universities in order to verify whether the results are similar or disparate. Eventually, it may be useful to expand research to other regions of the globe, such as in the community of Portuguese-speaking countries.

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