

THE WALTON MODEL TEST: THE PERCEPTION OF QUALITY OF LIFE AT WORK OF SERVERS AT THE STATE UNIVERSITY OF AMAZONAS

O TESTE DO MODELO DE WALTON: A PERCEPÇÃO DA QUALIDADE DE VIDA NO TRABALHO DOS SERVIDORES DA UNIVERSIDADE ESTADUAL DO AMAZONAS

Raimunda Albuquerque de Oliveira, Mestre

<https://orcid.org/0009-0007-9601-5598>

raoliveira@uea.edu.br

Universidade do Estado do Amazonas | Programa de Mestrado em Direito Ambiental
Manaus | Amazonas | Brasil

Nina Rosa da Silveira Cunha, Doutora

<https://orcid.org/0000-0002-2292-2159>

ninarosauvf@gmail.com

Universidade Federal de Viçosa | Departamento de Administração e Contabilidade
Viçosa | Minas Gerais | Brasil

Luiz Rodrigo Cunha Moura, Doutor

<https://orcid.org/0000-0002-7040-7864>

luizrcmoura@gmail.com

Fundação Pedro Leopoldo | Programa de Mestrado em Administração
Fundação Mineira de Educação e Cultura | Programa de Doutorado e Mestrado em Administração
Belo Horizonte | Minas Gerais | Brasil

Magnus Luiz Emmendoerfer, Doutor

<https://orcid.org/0000-0002-4264-8644>

magnus@ufv.br

Universidade Federal de Viçosa | Departamento de Administração e Contabilidade
Viçosa | Minas Gerais | Brasil

José Ricardo Vitória, Doutor

<https://orcid.org/0000-0002-0184-3072>

zericardocafe@yahoo.com.br

Universidade Federal de Viçosa | Departamento de Administração e Contabilidade
Viçosa | Minas Gerais | Brasil

Recebido em 04/outubro/2023

Aprovado em 17/abril/2024

Publicado em 30/setembro/2024

Sistema de Avaliação: *Double Blind Review*



Esta obra está sob uma Licença Creative Commons Atribuição-Uso.

ABSTRACT

Quality of life at work (QWL) management has become a major concern for managers, whether public or private. Testing the models and tools used to measure employees' perception of QWL is also a relevant theoretical aspect. This research aims to verify whether the Walton Model can be represented as a second-order construct reflected from the eight dimensions of this model and which constitute the first-order constructs. The methodology used is quantitative in nature, based on a questionnaire sent to all servers at the State University of Amazonas – a total of 613 servers – obtaining 162 valid questionnaires. Structural equation modeling was used to analyze the data. The results show that the general quality of life construct is a second-order construct formed by the eight first-order constructs that represent the dimensions of the Walton Model. Furthermore, the scales used to measure each of the eight first-order constructs presented good psychometric results, with the removal of only three indicators to measure Walton's QWL Model.

Keyword: Quality of Life at Work. Public Servants. Second Order Construct. Walton Model. University Management.

RESUMO

A gestão da qualidade de vida no trabalho (QVT) tem se tornado uma grande preocupação dos gestores, sejam eles públicos ou privados. O teste dos modelos e ferramentas usados para medir a percepção da QVT pelos funcionários também é um aspecto teórico relevante. O objetivo dessa pesquisa é verificar se o Modelo de Walton pode ser representado como um construto de segunda ordem refletido a partir das oito dimensões desse modelo e que constituem os construtos de primeira ordem. A metodologia usada é de natureza quantitativa, a partir de um questionário enviado para todos os servidores da Universidade Estadual do Amazonas – um total de 613 servidores – obtendo-se 162 questionários válidos. Foi usada a modelagem de equações estruturais para analisar os dados. Os resultados mostram que o construto qualidade de vida geral é um construto de segunda ordem formado pelos oito construtos de primeira ordem que representam as dimensões do Modelo de Walton. Além disso, as escalas utilizadas para medir cada um dos oito construtos de primeira ordem apresentaram bons resultados psicométricos, com a retirada de somente três indicadores medir o Modelo QVT de Walton.

Palavra-Chave: Qualidade de Vida no Trabalho. Servidores Públicos. Construto Segunda Ordem. Modelo de Walton. Gestão Universitária.

1 INTRODUCTION

The professional scenario has evolved significantly due to the growing concern with balancing work and quality of life, influencing companies and human resources management (LOPES-PEREIRA et al., 2023). Since the beginning of the 19th century, companies have introduced innovations into the workplace to improve their performance, compete effectively, and increase efficiency (ÖZGENEL, 2021).

Quality of Work Life (QWL) emerged in the 1950s in the United Kingdom and the USA, spreading globally. Focuses on the work environment, impacting employee satisfaction and improving organizational performance. QWL, studied since the 1950s, remains relevant, reflecting current trends and social challenges. Employees play a central role in organizations, essential for the company's success and progress, making it vital to promote their well-being at work (TÜR; DEMIR, 2022; KLEIN; PEREIRA; LEMOS, 2019).

Quality of Life at Work (QWL) seeks a healthy work environment, maximizing the potential of human resources to ensure employee satisfaction. Introduced into business management in the 1950s, it is a significant area of research that addresses ethics and working conditions (ÖZGENEL, 2021), and its importance is recognized in organizations (WARHURST; KNOX, 2022).

In the educational sector, productive restructuring led to changes in the organization of teachers' work. The growing demand for educational qualifications does not necessarily correspond to the working conditions of these professionals. In addition to meeting new demands, teachers face pressure to develop diverse skills. In Brazil, the disparity in teaching in unstructured environments results in work overload for these professionals (LOPES-PEREIRA et al., 2023).

Recently, several studies have been conducted to evaluate the Quality of Work Life (QWL) perceived in different spheres of public administration. In the municipal context, Bichett and Vargas (2021) investigated the perception of QWL among municipal employees. Correa and Pinheiro (2023) researched QWL in federal institutes. As for university professors, Lopes-Pereira et al. (2023) dedicated themselves to studying QWL at a federal university in Goiás. About public servants with disabilities, Amâncio and Mendes (2023) analyzed the way they perceive QWL at the Federal University of Viçosa. Alves, Correia, and Silva (2019) researched both teachers and public servants at an HEI in Rio Grande do Norte.

Furthermore, at the state level, Piacentini and Winck (2023) focused their research on teachers from municipal public education networks in the State of Rondônia.

The model developed by Richard Walton in 1973 stands out notably among other models of quality of life at work, as it focuses on fundamental issues related to the performance of work, with an emphasis on hygienic factors, physical conditions, safety aspects, and remuneration (PAULA et al., 2021; YAMAGUCHI, 2012).

Walton highlights the importance of being concerned with the quality of the human experience in the workplace. This approach arises as a response to environmental and humanistic values neglected in favor of technological progress, industrial productivity, and economic growth by industrialized society. Its model promotes the humanization of work and the social responsibility of companies, focusing on the needs and desires of workers, encouraging the restructuring of positions and work organization, promoting the autonomy of work teams, and allowing work to be connected to other aspects of the individual's life (KLEIN; PEREIRA; LEMOS, 2019; NEVES; CAMPOS; MORAIS, 2020; BENEVENUTE; SOUZA; CARVALHO, 2019).

Walton's model includes eight interrelated variables covering all human needs, from basic ones to self-realization. It emphasizes humanization and social responsibility as essential criteria. Limongi-França (2012) notes that Walton pioneered the United States to initiate research on satisfaction in the quality of work life, offering an organizational perspective. In this sense, his study is internationally recognized as a reference in the development of the field of quality of life at work and is the most used model to measure QWL.

It demonstrates superior efficiency compared to other methods in assessing quality of life at work (BISCAIA, 2021). Furthermore, its ability to measure QWL nowadays has made it the object of numerous investigations in companies and academic institutions over the last few decades, being widely adopted by researchers specializing in QWL (MAIA; ARAÚJO; ALLOUFA, 2012) and also by organizational psychologists (CALIXTO, 2020). The Walton Model stands out for its broad validity in different types of research and its high applicability (SABONETE et al., 2021).

This work aims to test whether the Walton Model can be represented by a reflective model in which the second-order construct of the perceived general quality of life is reflected by the eight first-order constructs that make up the dimensions of the Walton Model.

Furthermore, the psychometric characteristics of the scales used to measure Walton's QWL were also examined.

Theoretically, this work is justified by the novelty of the representation of the Walton Model based on a second-order construct of “in general” perceived quality of life. This type of representation was not found in the literature.

Furthermore, psychometric tests of the scales used to measure the dimensions of the Walton Model are essential to increase their reliability and validity when used in different environments, such as the public sector.

In the case of managerial implications, knowledge about the dimensions of the Walton Model that reflect QWL and which are the most representative about “general” QWL – a second-order construct – are important aspects for the manager to make decisions about the investment and effort that must be used in each dimension, such as investments to improve or maintain the current perception.

QWL is a tool to improve employees' perception of their QWL. Identifying positive factors allows managers to implement actions and make more satisfactory decisions (RIBEIRO; SHIMOSAKA; COSTA, 2015).

2 THEORETICAL FRAMEWORK

This section presents the concepts about quality of life at work, the Walton Model and the justification for choosing this model.

2.1 QUALITY OF WORK LIFE

Quality of Life at Work (QWL) involves satisfying employees' needs in the work environment and promoting motivation and responsibility (AMINIZADEH et al., 2022).

It is a comprehensive concept that concerns the ability of workers to satisfy their personal needs in the workplace, including satisfactory working conditions, fair rewards, and growth opportunities (DAEHN, 2020). Its origins date back to the end of the 19th century when working conditions were precarious, and it evolved in response to workers' demands and the growing concern for safety and well-being in the workplace (AMINIZADEH et al., 2022; WARHURST; KNOX, 2022)

Effectively managing these factors is crucial for the well-being of employees and the company's productivity (AMÂNCIO; MENDES, 2023). QWL seeks democratic and humane

work environments, reducing alienation and harmonizing employee needs, resulting in satisfaction, performance, and productivity, benefiting companies (TÜR; DEMİR, 2022). Crucial components include fair pay, security, growth, work-life balance, and the development of human capabilities (AMINIZADEH et al., 2022).

QWL encompasses components such as fair remuneration, safe working conditions, skills development, work-life balance, and valuing employees as a fundamental organizational resource. Its importance is intrinsically linked to efficiency and productivity, and neglecting it is detrimental to the company, resulting in reduced productivity, difficulty attracting talent, and increased costs. Contemporary management considers QWL a crucial issue, seeking to balance the team's professional and personal lives, improving organizational culture, and promoting the company's growth (ÖZGENEL, 2021; ZAHEDY; JAFARI; RAMEZAN, 2021).

In the Brazilian public sector, challenges to the quality of work life include bureaucracy, legal restrictions, problematic career advancement due to clientelistic relationships, and lack of career prospects. A review of organizational practices is necessary to improve QWL and the services provided (AMÂNCIO; MENDES, 2023; PAULA et al., 2021).

2.2 THE WALTON'S MODEL

Walton argues that Quality of Work Life (QWL) covers many factors that can affect workers' daily lives to improve their retention in organizations. He emphasizes that QWL must be considered a comprehensive concept, which goes beyond legal requirements, incorporating human expectations and aspirations, as well as the social responsibilities of organizations, whether public or private (YAMAGUCHI, 2012).

Walton highlights the importance of being concerned with the quality of the human experience in the workplace. This approach arises as a response to environmental and humanistic values neglected in favor of technological progress, industrial productivity, and economic growth by industrialized society. His model promotes the humanization of work and the social responsibility of companies, focusing on the needs of workers. It also encourages the restructuring of positions and the organization of work, promoting the autonomy of teams and allowing work to be connected to other aspects of the individual's life

(KLEIN; PEREIRA; LEMOS, 2019; NEVES; CAMPOS; MORAIS, 2020; BENEVENUTE; SOUZA; CARVALHO, 2019).

The eight dimensions that form Walton's model are described below.

2.2.1 Fair and proper compensation

Adequate and fair compensation is a central concern in the workplace (GHASEMI et al., 2021). Fair and proper compensation is the relationship between payment and work factors, considering market supply and demand, average salary, and profit sharing (BENEVENUTE; SOUZA; CARVALHO, 2019).

Internal and external equity, justice in compensation, and sharing of productivity gains are key elements of fair and adequate compensation (AMÂNCIO; MENDES, 2023; COELHO; HARB; VEIGA, 2017). Fair and proper wages are consistent with the comfort of the workplace and the workload (TÜR; DEMIR, 2022).

2.2.2 Work conditions

A safe and healthy working environment refers to an environment free from physical and mental risks, together with reasonable working hours (GHASEMI et al., 2021), payment of overtime, and minimization of harmful elements, such as odors and noise (BENEVENUTE; SOUZA; CARVALHO, 2019), available equipment and employee fatigue (WALTON, 1973). Furthermore, aspects with a safe physical environment and absence of unhealthy conditions (COELHO; HARB; VEIGA, 2017), both physically and emotionally (TÜR; DEMIR, 2022). This concept is valid for business environments and the public sector, such as public schools (BORGES; HENIG, 2021).

2.2.3 Capacity use and development

Jobs that offer greater autonomy and learning opportunities are preferred by workers, improving professional satisfaction and reducing stress (GHASEMI et al., 2021). To develop human capabilities, it is essential to consider qualities such as autonomy, use of multiple skills, comprehensive feedback, complete execution of tasks, and prior planning (BENEVENUTE; SOUZA; CARVALHO, 2019). Furthermore, the use and development of capabilities at work are also characterized by opportunities for decision-making and performance evaluation (BORGES; HENIG, 2021) as well as comprehensive knowledge

about the work process (COELHO; HARB; VEIGA, 2017), by task meaning, task identity, variety of skills and feedback (AMÂNCIO; MENDES, 2023).

2.2.4 Opportunity for growth and security

Growth and security in the workplace include opportunities for professional development and the guarantee of job stability. This involves the expansion of workers' skills and knowledge, the expectation of applying these skills in the business context, and the possibility of career progress, including promotions, career plans (BENEVENUTE; SOUZA; CARVALHO, 2019), personal growth, and job security. Employment creates an environment that encourages continuous development and career goal planning for employees (AMÂNCIO; MENDES, 2023; COELHO; HARB; VEIGA, 2017; TÜR; DEMIR, 2022).

2.2.5 Social integration in the organization

Social integration in the workplace aims to create a pleasant atmosphere that strengthens employees' sense of belonging to the organization and highlights its importance (GHASEMI et al., 2021). This covers aspects related to personal relationships and self-esteem in the workplace, including the absence of prejudice, equal opportunities, social mobility, healthy interpersonal relationships, a sense of community, and exchange of information (BENEVENUTE; SOUZA; CARVALHO, 2019).

This dimension of the Walton Model seeks to minimize conflicts, promote acceptance of all individual characteristics, and ensure that employees feel valued in the organization. Social interaction in the organization is fundamental to creating a positive and inclusive work environment, where each member perceives themselves as an important part of the whole (AMÂNCIO; MENDES, 2023; COELHO; HARB; VEIGA, 2017; TÜR; DEMIR, 2022).

2.2.6 Constitutionalism – constitutional guarantees

Constitutionalism in the organizational context is a principle that aims to guarantee workers' freedom of expression, protecting them against repression from superiors (GHASEMI et al., 2021). This dimension addresses key elements, such as the right to personal privacy, freedom of expression, equal treatment, and equality before the law (BENEVENUTE; SOUZA; CARVALHO, 2019).

In the workplace, Constitutionalism is crucial to protecting workers' rights, ensuring that everyone has equal opportunities and is treated fairly. This includes preserving personal privacy, freedom of expression, and compliance with labor rules and regulations (AMÂNCIO; MENDES, 2023; COELHO; HARB; VEIGA, 2017; TÜR; DEMIR, 2022).

2.2.7 Balance - work and total life space

Balance involves the relationship between work, leisure, and family, which can affect family and social life: exhausting hours and frequent changes of residence present challenges. More free time and less physical exhaustion allow for leisure activities with the family (GHASEMI et al., 2021; BENEVENUTE, SOUZA, CARVALHO, 2019).

Proper time management and balancing work and personal life are crucial in this context. This includes maintaining stable schedules, few geographic changes, and promoting quality time for family and leisure activities (AMÂNCIO; MENDES, 2023; COELHO; HARB; VEIGA, 2017; TÜR; DEMIR, 2022).

2.2.8 Relevance of work in life

The social relevance of work involves employees' perception of the organization's social responsibility, including environmental actions and respect for social rules (GHASEMI et al., 2021). This covers reducing pollution, recycling, supporting the community, and improving the company's image and employees' self-esteem (BENEVENUTE; SOUZA; CARVALHO, 2019).

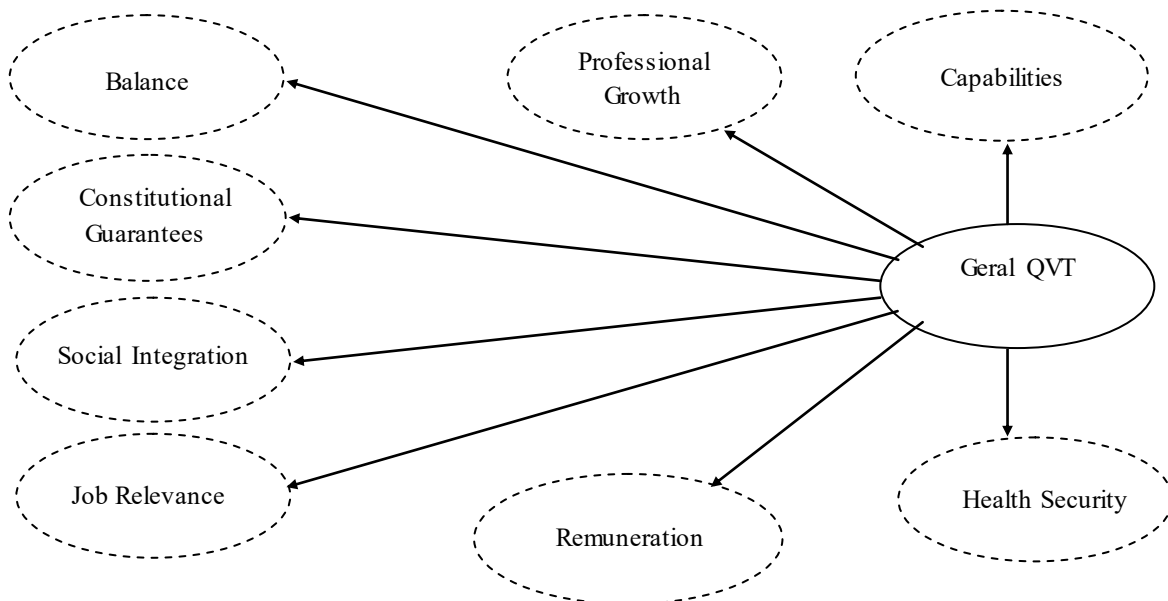
The company's institutional image represents the social relevance of work in the lives of employees, its social responsibility, the quality of products, and employment practices (COELHO; HARB; VEIGA, 2017; AMÂNCIO; MENDES, 2023). This dimension considers how organizational activities, employment practices, and company actions affect employees' quality of professional life, highlighting social responsibility to promote well-being and work performance (TÜR; DEMIR, 2022).

3 RESEARCH HYPOTHESIS AND CONSTRUCTION OF THE HYPOTHETICAL MODEL

Considering the description of the eight dimensions of the Walton Model, it was considered that each is a first-order construct, which reflects the second-order construct, which is the General QWL perceived by UEA employees.

Therefore, this study hypothesizes that the perceived General QWL comprises the eight dimensions of the Walton Model. Figure 1 below represents the model used to describe the Walton model.

Figure 1 Hypothetical model developed for this research.



Note: The eight constructs with the dashed line correspond to the first-order constructs of the second-order construct general satisfaction with QWL.

Source: prepared by the authors.

4 METHOD

A quantitative approach was used to achieve the research objectives, which can be classified as descriptive.

The data collection instrument was based on SANTANA et al. (2012), considering the eight dimensions of Walton's QWL Model. The questionnaire used an eleven-point scale, with values ranging from 0 to 10 and the anchors “very dissatisfied” and “very satisfied,” respectively. Eleven-point scales are the most recommended because they allow a greater variety of respondents' opinions (NUNNALLY; BERNSTEIN, 1994; FORNELL et al., 1996), in addition to their familiarity with evaluating items between 0 and 10 in their day-to-day (BIRCHAL; MOURA; VASCONCELLOS, 2023).

Before applying the questionnaire to the research public, a pre-test of the questionnaire was carried out, in which 30 UEA public servants were interviewed. No relevant changes were suggested for this data collection instrument.

A census was conducted among the 613 UEA employees corresponding to the research universe. The questionnaire was developed using the Google Forms tool, and the link to fill out the form was emailed to all UEA technical administrative servers. At the end of the data collection process, 173 responses were obtained, equivalent to a response rate of 28.22%.

Data analysis consisted of data processing, descriptive statistics for sample characteristics multivariate data statistics,, and structural equation modeling. The software used was SPSS and AMOS.

5 DATA ANALYSIS

5.1 DATA PROCESSING AND SAMPLE CHARACTERISTICS

The first step in data processing was to check whether any respondent participated in the survey more than once. This conference took place by checking the respondents' email. Eleven duplicate respondents were found. Thus, the records answered first were kept, and those answered later were discarded. Therefore, the sample that initially had 173 elements now has 162 cases. The sample characteristics are presented in Table 1 below.

Table 1 Sample characteristics

Demographic variable	Sample characteristics	Absolute Frequency	Relative Frequency
Gender	Female	91	56,2%
	Male	70	43,2%
	Rather not answer	1	0,6%
Age (Years)	18 até 25 years	3	1,9%
	25 até 30 years	7	4,3%
	30 até 40 years	60	37,0%
	40 até 45 years	29	17,9%
	45 até 50 years	27	16,7%
	Over 50 years old	36	22,2%
Marital Status	Married	72	44,4%
	Single	48	29,6%
	common-law marriage	20	12,3%
	Divorced	18	11,1%
	Widower	4	2,5%
Education	Elementary / Middle School	5	3,1%
	High school	10	6,2%
	Current College Students	27	16,7%
	College degree	7	4,3%
	Postgraduate	94	58,0%
	Master's/Doctorate	19	11,8%
Total responses valid		162 cases	

Source: research data.

The results show that the sample mainly comprises women (56.2%), with the largest respondents aged between 30 and 40 (37%). Furthermore, the largest group of respondents is married – 44.4% of the total – and the majority of employees who participated in the survey have completed postgraduate studies – 58%.

There was no occurrence of missing data because the research form did not accept unfilled responses. The other analysis carried out at this stage is the examination of the normality of the sample, which occurred through the Kolmogorov-Smirnov Test. The results show that none of the 45 indicators used to measure the eight constructs of the Walton Model presented a normal distribution. Therefore, the techniques used in data analysis should be robust in terms of deviations from normality.

Another analysis carried out in data processing examines the existence of standard method bias (CMB). Thus, the post-hoc Harman's Single-Factor Test was carried out, the most common test to analyze the existence of CMB (FULLER et al., 2016). This test consists of carrying out an exploratory factor analysis with all indicators of all constructs together configured for the EFA to generate only one factor in the end. The value of the explained variance of this single factor must be less than 50% (FULLER et al., 2016; PODSAKOFF et al., 2003). The explained variance of this factor aggregating all indicators was 46.69%, which can be assessed as adequate.

5.2 UNIDIMENSIONALITY, RELIABILITY AND VALIDITY

An exploratory factor analysis (EFA) was carried out for each construct to verify whether they are unidimensional – formed by only one indicator. For EFA results to be considered valid, the Kaiser-Meyer-Olkin (KMO) sample adequacy value must be equal to or greater than 0.700, the Bartlett Test of Sphericity p-value must be equal to 0.000, and the Correlations between all indicators of the construct must be statistically significant (MALHOTRA; NUNAN; BIRKS, 2017; HAIR et al., 2014).

When analyzing the results in Table 2, it can be seen that all these conditions were met. Furthermore, as recommended by Hair et al. (2014), the commonality value of all indicators was more significant than 0.500, and the explained variance of each construct was at least 60%. The exceptions are due to the indicator “Satisfaction with respect for the right to belong to the category union” of the constitutional guarantees construct, the indicator “Benefits (health plan, insurance, etc.) to which you are entitled” of the remuneration

construct and the indicator “Satisfaction with the interpersonal relationships maintained with co-workers in the work sector” of the social integration construct. These indicators were removed from the constructs – and subsequent analyses – and a new EFA for each construct was carried out. The results presented adequate values.

Another analysis concerns the reliability of the scales used to measure each construct. To this end, the Cronbach's Alpha (AC) value was calculated, which must be at least 0.700 (MALHOTRA; NUNAN; BIRKS, 2017; HAIR et al., 2014). Again, the results are adequate, as the lowest value achieved for AC was 0.830.

The next stage of the analysis involves investigating each construct's convergent validity. In this case, two indicators were used: the average variance explained (AVE) and the composite reliability, which must not be less than 0.500 and 0.700, respectively (MALHOTRA; NUNAN; BIRKS, 2017; HAIR et al., 2014). The results show that convergent validity was achieved for all constructs.

Table 2 Results of the scales' unidimensionality, validity, and reliability

Construct	Items Description	Standardized Factor Loading
Capabilities	Freedom means you have to plan, execute, and evaluate your actions.	0,941
V.E. = 78,00% KMO = 0,903 A.C. = 0,942 A.V.E. = 0,771 C.C. = 0,953	Degree of freedom you have to decide on the activities you perform	0,931
	Job demands include carrying out challenging activities with a high level of creativity.	0,863
	Possibilities you have to finish the tasks you start completely.	0,851
	Information you have access to related to your work to carry out the tasks you begin fully.	0,863
	Return on the results of tasks performed.	0,814
Professional growth	The University offers opportunities to develop new knowledge and/or skills related to the role.	0,858
V.E. = 77,11% KMO = 0,825 A.C. = 0,895 A.V.E. = 0,711 C.C. = 0,907	Possibilities to apply, in the performance of the position, the skills acquired in training courses.	0,892
	Possibilities for personal growth when carrying out work.	0,908
	I have confidence in my future at this University.	0,698
Balance	Space of time, duration, that work occupies in life	0,892
V.E. = 74,13% KMO = 0,828 A.C. = 0,881 A.V.E. = 0,663 C.C. = 0,886	Time left, after work, to dedicate to leisure and family life.	0,838
	Stability of working hours.	0,798
	Work concerns reflecting on private life.	0,717
Constitutional Guarantees	Fair treatment by superiors when carrying out my role.	0,704
	Respect for the rights established by law (holidays, 13th salary, working hours, days off, etc.).	0,790

V.E. = 67,30%	Freedom to fight for the rights guaranteed by the Law and the Public	0,802
KMO = 0,864	Servant Statute.	
A.C. = 0,872	<i>Respect for the right to belong to the category union</i>	Not available
A.V.E. = 0,609		
C.C. = 0,885	Degree of privacy you have outside of work.	0,742
	Degree of influence of norms and routines in the development of work.	0,855
Social integration	Interpersonal relationships maintained with superiors.	0,874
	Interpersonal relationships that you maintain with co-workers in the work sector.	Not available
V.E. = 66,24%	Organizational climate (respect for other people, good relationships, cooperation, the interaction between people, socio-emotional support, etc.), which you perceive at the University.	0,648
KMO = 0,854		
A.C. = 0,984	Support received from superiors in the development of work.	0,897
A.V.E. = 0,647	Equal opportunities are granted to all.	0,789
C.C. = 0,916	The communication process (open communication) exists at hierarchical levels.	0,818
	Possibility of dealing with embarrassing and delicate situations.	0,778
Job Relevance	Respect that society gives to this University.	0,805
	Social responsibility that the University has towards the community.	0,810
V.E. = 72,91%	Opportunity to help other people while I'm working.	0,860
KMO = 0,880		
A.C. = 0,936	Importance of the activities performed for society.	0,915
A.V.E. = 0,781	Personal pride and satisfaction about the activities performed in the position.	0,933
C.C. = 0,961	Pride and personal satisfaction in being part of this University.	0,901
	The feeling of contributing to society when carrying out activities.	0,950
Remuneration	Salary you receive	0,948
	When you compare your salary with the activities you perform	0,938
V.E. = 77,82%	When comparing your salary with the salary of your co-workers	0,888
KMO = 0,930		
A.C. = 0,966	When comparing the wages with the salaries of colleagues at other public universities,	0,936
A.V.E. = 0,842	When you compare your salary with the salary of your colleagues at private universities	0,905
C.C. = 0,970	Benefits (health plan, insurance, etc.) to which you are entitled	Not available
	Purchasing power and remuneration match my needs.	0,889
Health Security	Working hours are normally submitted to carry out the work.	0,715
	Use of new technologies to perform activities	0,831
V.E. = 85,59%		
KMO = 0,931	Level of personal safety and health (absence of risk of accidents) when carrying out my activities.	0,779
A.C. = 0,830		
A.V.E. = 0,558	Physical conditions (lighting, ventilation, temperature, hygiene, noise, equipment, etc.) of the sector in which you work.	0,651
C.C. = 0,833		

Notes: 1) V.E. is a variation explained by the factor. 2) KMO is the value of the Kaiser-Meyer-Olkin test. 3) A.C. is the value of Cronbach's Alpha. 4) AVE is the average variance extracted. 5) C. C. is composite reliability.

Source: research data.

Discriminant validity is the subsequent validity to be verified, which occurs by comparing the square root values of the AVE of each construct with the correlation value

between them (MOURA, 2010). Discriminant validity occurs when the two square root values of the AVEs of the pair of constructs are more significant than the correlation value between them (HAIR et al., 2014). The results are shown in Table 3.

Table 3. Discriminant Analysis

Construct	Capabili- ties	Professional Growth	Balan- ce	Constituti- onal Guarantees	Social Integration	Job Relevance	Remune- ration	Health Security
Capabilities	0,878							
Professional Growth	0,801	0,843						
Balance	0,692	0,653	0,814					
Constitu- tional Guarantees	<u>0,782</u>	0,749	<u>0,820</u>	0,780				
Social Integration	<u>0,852</u>	0,768	0,740	<u>0,876</u>	0,804			
Job Relevance	0,571	0,492	0,633	0,645	0,561	0,884		
Remunera- tion	0,466	0,648	0,492	0,513	0,423	0,255	0,918	
Health Security	<u>0,888</u>	<u>0,841</u>	<u>0,765</u>	<u>0,854</u>	<u>0,757</u>	0,562	0,688	0,747

Note: the value in bold on the main diagonal of the table represents the square root value of the AVE. Relationships that violate discriminant validity are italicized and underlined.

Source: Research data.

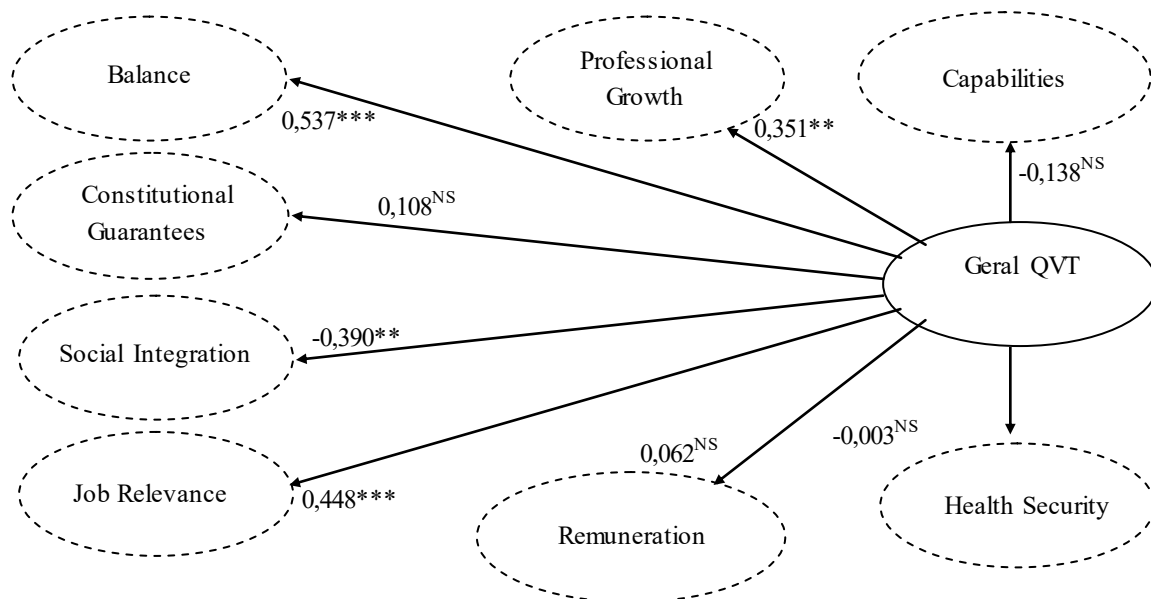
The results show that nine of the 28 correlations between the eight constructs that form Walton's model violate discriminant validity. This means that these constructs have a high correlation level, indicating the possibility of redundancy between them. This occurred mainly with the constructs of security and health, constitutional guarantees, and capabilities.

However, this result can also be partially explained by the fact that these constructs are first-order constructs and form the second-order construct of quality of work life. Thus, there is the possibility of more incredible difficulty for respondents in perceiving the constructs as distinct when they make up a second-order construct, as in the case of this article.

The hypothesis test of this study occurred through the execution of structural equation modeling (SEM). The method used was Maximum Likelihood estimation, suitable for samples that violate the normal distribution (HAIR et al., 2014).

The results are displayed in Figure 2, which shows the magnitude and significance of the first-order constructs with the perceived General QWL – second-order construct.

Figure 2 Test of the Walton model with the second-order General QWL construct



Note: the eight constructs with the dashed line correspond to the first-order constructs of the second-order construct general satisfaction with QWL.

*** indicates that the relationship is statistically significant at the 0.001 level.

** indicates that the relationship is statistically significant at the 0.01 level.

NS indicates that the relationship is not statistically significant.

Source: research data.

By observing Figure 2, it can be concluded that the hypothesis that the perceived General QWL is composed of the eight dimensions of the Walton Model is supported.

Another aspect evaluated when using structural equation modeling is the values of the fit indices, which help verify the validity of the model used in SEM. The results are shown below – see Table 4.

Table 4 Model fit indices

Fit Indices	Value	Reference value *
χ^2 / df (Qui-quadrado Normado)	2,257	≥ 3 or values up to 5 in complex models
IFI (Incremental Fit Index)	0,850	$\geq 0,90$
CFI (Comparative Fit Index)	0,849	$\geq 0,90$
TLI (Tucker-Lewis Index)	0,840	$\geq 0,90$
RMSEA (Root Mean Square Error of Approximation)	0,08	≥ 0.07 or slightly higher values in complex models

Note: * values for a sample with more than 250 elements and at least 30 observed variables.

Source: research data and HAIR et al. (2014).

The results show that only the Normed Chi-Square index has a value compatible with the defined reference values. However, the values presented by the other indicators are very close to the reference values. It is also noteworthy that a large number of observed variables –

45 indicators – can make the values of the adjustment indices more flexible (HAIR et al., 2014).

6 DISCUSSION OF RESULTS

No other studies were found in which the measurement of the Walton Model occurred through a configuration in which the construct of quality of life perceived by the worker is a second-order construct, and the eight dimensions of the model are first-order constructs.

The results support the central hypothesis of this study, that is, quality of life at work reflects each of the eight dimensions of the Walton Model.

However, Ayres, Nascimento, and Macedo (2016) configured the Walton Model differently as a formative model, in which the eight constructs form the quality of life at work. Contrary to the results obtained in the second-order reflective model in this article, in the formative model of Ayres, Nascimento and Macedo (2016) the constructs compensation and social integration did not present statistically significant values with the quality of life at work “in general”.

Another aspect to be considered is that in the case of psychometric characteristics related to the internal consistency and convergent validity of the scale indicators used, the results show that the vast majority of indicators have values close to the reference values of 0.70 according to the results. Obtained by Ayres, Nascimento, and Macedo (2016), Mesquita et al. (2018), and Silva et al. (2021). In this study, it is noteworthy that only three indicators were removed from the second-order reflective model due to communality and factor loading values below the recommended minimum.

7 FINAL CONSIDERATIONS

This work aimed to verify whether the Walton Model can be represented by a second-order construct reflecting the eight dimensions of the model through first-order constructs.

This is a tremendous theoretical contribution to this study. No other articles in the literature studied this model with this configuration. This is a relevant contribution because, in other studies that have a nomological chain in which QWL is an antecedent or mediating variable, the configuration of this construct as second-order can better represent the relationships desired by researchers, in addition to better representing the reality of the phenomenon of measuring QWL.

The examination of unidimensionality, reliability, and convergent and discriminant validity of each of the scales used to measure the eight dimensions of the Walton Model also represents another theoretical contribution of this research.

From the results obtained, in the case of managerial implications, it appears that managers must apply and seek to use each of the eight dimensions of the Walton Model. More specifically, managers must implement, optimize, communicate, and manage each item comprising the Walton Model's eight dimensions.

Regarding the capabilities of university employees, managers must give university employees the freedom to plan, execute, evaluate, and decide on their activities, promoting creativity and feedback and ensuring the completion of the tasks they begin.

In the case of professional growth, the UEA must allow employees to acquire and apply new knowledge, develop professionally within the IES, and have security regarding their future at UEA.

Another aspect that managers have to worry about is the balance between their team's personal and professional lives. Therefore, they must allow employees to dedicate themselves to leisure and family life and provide stable schedules.

University managers also need to consider constitutionalism. Therefore, it is necessary that there is fair treatment between them and their team, that there is respect for the rights established by law (holidays, 13th salary, working hours, days off, etc.), and that employees can express their opinions, for example.

Social integration is another dimension of the Walton Model. Therefore, managers must ensure an adequate and high-level interpersonal relationship with the team along with the communication process, support for work development, equal opportunities for everyone, and an excellent organizational climate.

Regarding the social relevance of the work, UEA must communicate and show employees the transformation it generates in students' lives and its impacts on the community, as well as encourage employees' feelings of satisfaction and pride about their activities.

Compensation is another aspect present in Walton's model. In the case of public service, this should be the aspect in which managers have the most minor influence. The job and salary plan is already defined by higher authorities, and salary adjustments - in general - depend on the government's remuneration policy towards public employees as a whole.

Finally, regarding safety and health in the workplace, managers must ensure that physical conditions are adequate, that the risk of accidents is as low as possible, and that the workload designated for carrying out activities is compatible with the work's amount and complexity.

Regarding the limitations of the work, only one data collection campaign was carried out among the research's target audience. In the end, 162 cases were obtained that were considered valid. Thus, 452 employees who may have different opinions about QWL than those who responded did not participate in the survey.

Regarding future studies, two possibilities for continuing this study are described. The first suggests investigating the consequences of QWL on workers' perceptions, including their well-being, happiness at work, self-fulfillment, intentions to stay in the job, company recommendation, and commitment to their responsibilities. The second possibility involves improving data collection instruments and scales to evaluate the dimensions of Walton's model, specifically for professionals working in public higher education institutions. Furthermore, considering managerial implications, it is suggested that respondents assess which dimensions are most relevant to their perception of QWL. Finally, it is proposed that studies be carried out with active elderly employees to compare those who have chosen to retire with those still working, with the hypothesis that QWL is higher for the second group.

REFERÊNCIAS

ALVES, Cinthya Rafaela Araújo; CORREIA, Ana Maria Magalhães; SILVA, Armistrong Martins da. Qualidade de vida no trabalho (QVT): um estudo em uma instituição federal de ensino superior. **Revista Gestão Universitária na América Latina-GUAL**, v. 12, n. 1, p. 205-227, 2019.

AMÂNCIO, Dayse Leticia Pereira; MENDES, Diego Costa. Deficiência e QVT: reflexões e desafios no ambiente laboral de uma IES. **Revista Economia & Gestão**, v. 22, n. 64, 2023.

AMINIZADEH, Mohsen et al. Quality of working life and organizational commitment of Iranian pre-hospital paramedic employees during the 2019 novel coronavirus outbreak. **International Journal of Healthcare Management**, v. 15, n. 1, p. 36-44, 2022.

AYRES, Rosângela Mesquita; NASCIMENTO, João Carlos H. Bernardes do; MACEDO, Marcelo Álvaro da S. Satisfação do profissional de contabilidade do Estado do Rio de Janeiro quanto à Qualidade de Vida no Trabalho - QVT (2014-2015): uma análise por PLS-SEM com base no Modelo Dimensional de Walton. **Pensar Contábil**, v. 18, n. 67, p. 5-14, 2017.

BENEVENUTE, José Marcos Nunes; DE SOUZA, Sheila Ataíde Domingues; CARVALHO, Ângela Maria do Amaral Abreu. Qualidade de vida no trabalho: a percepção dos servidores públicos. **Org & Demo**, v. 20, n. 1, p. 45-66, 2019.

BICHETT, Miria; VARGAS, Sandra Martins Lohn. Fatores influenciadores na satisfação e motivação ao trabalho no setor público municipal. **Desafio Online**, v.9, n.1, p. 138-162, 2021.

BIRCHAL, Rhaimá Aparecida M. da Costa; MOURA, Luiz Rodrigo C.; VASCONCELOS, Fernanda Carla Wasner. Perceived value by consumers in vegetarian food and its consequences: a study in Brazil. **Journal of Foodservice Business Research**, p. 1-31, 2023.

BISCAIA, Rúbia Carla Maia. **Relações entre qualidade de vida e qualidade de vida no trabalho**. 1. ed. Ponta Grossa: ZH4, 2021. 70p.

BORGES, Amanda Paula Lima; HENIG, Edir Vilmar. Qual percepção dos funcionários de apoio e técnico de uma escola estadual em Rondonópolis-MT sobre qualidade de vida no trabalho?. **Revista de Administração e Negócios da Amazônia**, v. 13, n. 3, p. 2-24, 2021.

CALIXTO, Vanessa Cavallari. **A qualidade de vida no trabalho dos docentes idosos, atuantes na rede municipal de ensino de Ponta Grossa-Paraná**. 2020. Dissertação (Mestrado em Ciências Sociais Aplicadas). Universidade Estadual de Ponta Grossa, Ponta Grossa, Brasil, 2020.

COELHO, Moisés Andrade; HARB, Antonio Geraldo; VEIGA, Renata Syallen de Sousa. Qualidade de vida no trabalho em uma instituição pública da cidade de Manaus. **Revista Gestão & Saúde**, v. 8, n. 2, p. 212-229, 2017.

CORREA, Sérgio Fernando Maciel; Pinheiro, S. F. Saúde e qualidade de vida no trabalho para servidores públicos: diagnóstico e proposições para institutos federais de educação. **Revista Eletrônica de Investigações Filosófica, Científica e Tecnológica**, v. 9, n. 25, p. 28-51, 2023.

DAEHN, Cheryl Maureen. Qualidade de vida na jornada de trabalho flexibilizada de uma universidade pública federal. **Caderno de Administração**, v. 28, n. 2, p. 38-54, 2020.

FORNELL, Claes et al. The American customer satisfaction index: nature, purpose, and findings. **Journal of marketing**, v. 60, n. 4, p. 7-18, 1996.

FULLER, Christie M. et al. Common methods variance detection in business research. **Journal of business research**, v. 69, n. 8, p. 3192-3198, 2016.

GHASEMI, Fakhradin et al. Quality of work life among surgeons and its association with musculoskeletal complaints. **Cogent Psychology**, v. 8, n. 1, p. 1880256, 2021.

HAIR, Joseph F. et al. 7th Edition. **Multivariate data analysis**. Pearson new international edition, 2014.

KLEIN, Leander L.; PEREIRA, Breno AD; LEMOS, Ricardo B. Quality of working life: parameters and evaluation in the public service. **RAM. Revista de Administração Mackenzie**, v. 20, 2019.

FRANÇA, Ana Cristina Limongi. Qualidade de vida no trabalho: conceitos e práticas nas empresas da sociedade pós-industrial. In: **Qualidade de vida no trabalho: conceitos e práticas nas empresas da sociedade pós-industrial**. 2003. p. 189-189.

LOPES-PEREIRA, Ana Paula et al. Preditores associados à qualidade de vida no trabalho de docentes da universidade pública. **Revista de Salud Pública**, v. 22, p. 544-551, 2023.

MAIA, Kadma Lanúbia da Silva; ARAÚJO, Richard Medeiros de; ALLOUFA, Jomária Mata de Lima. Qualidade de vida no trabalho sob a ótica de servidores públicos: um estudo de caso em uma empresa pública federal. **Revista Ciências Administrativas**, v. 18, n. 2, 2012.

MALHOTRA, Naresh; NUNAN, Daniel; BIRKS, David F. **Marketing research: an applied approach**. 5th edition. New York: Pearson, 2017.

MESQUITA, Rafael Fernandes de et al. As dimensões da qualidade de vida no trabalho em empresas privadas. **Exacta**, v. 16, n. 1, p. 43-54, 2018.

MOURA, Luiz Rodrigo Cunha. **Um estudo comparativo de teorias da ação e suas extensões para explicar a tentativa de perder peso. Belo Horizonte**. 2010. 402p. Tese (Doutorado em Administração) - Universidade Federal de Minas Gerais, Belo Horizonte, Brasil, 2010.

NEVES, Tatiane Santos; CAMPOS, Luciana de Freitas; MORAIS, Harriman Aley. Qualidade de vida no trabalho dos servidores técnico-administrativos em educação em uma universidade federal de Minas Gerais. **Research, Society and Development**, v. 9, n. 5, p. e13952208-e13952208, 2020.

NUNNALLY, Jum C.; BERNSTEIN, Ira H. **Psychometric theory** New York. NY: McGraw-Hill, 1994.

ÖZGENEL, Mustafa. The effect of quality of life work on organizational commitment: a comparative analysis on school administrators and teachers. **Elementary Education Online**, v. 20, n. 1, p. 129-144, 2021.

PAULA, Marcos Vinício de et al. Os níveis de qualidade de vida no trabalho a partir dos modelos de Walton (1973) e Hackman e Oldham (1975): estudo em uma instituição federal de ensino do Estado de Minas Gerais. **Revista Gestão Universitária na América Latina-GUAL**, v. 15, n. 1, p. 139-161, 2022.

PIACENTINI, Marcos; WINCK, César Augustus. Validação psicométrica da escala para avaliação da qualidade de vida no trabalho escolar - QWSL. **Boletim de Conjuntura (BOCA)**, v. 15, n. 43, p. 121-138, 2023.

PODSAKOFF, Philip M. et al. Common method biases in behavioral research: a critical review of the literature and recommended remedies. **Journal of applied psychology**, v. 88, n. 5, p. 879, 2003.

RIBEIRO, Cezar Grontowski; SHIMOSAKA, Aline Mati; DA COSTA, David. Qualidade de vida dos servidores em processo de envelhecimento-IFPR Campus Palmas. **Revista FisiSenectus**, v. 3, n. 2, p. 13-23, 2015.

SABONETE, Sérgio Abílio et al. Quality of work life according to Walton's model: Case study of the higher institute of defense studies of Mozambique. **Social Sciences**, v. 10, n. 7, p. 244, 2021.

SANTANA, Luiza Lúcia et al. Gestores escolares da rede pública em Minas Gerais: fatores de satisfação no trabalho. **Educação em Revista**, v. 28, n. 01, p. 491-520, 2012.

SILVA, Armstrong Martins da et al. A qualidade de vida no trabalho (QVT) em uma indústria alimentícia. **Gestão e Sociedade**, v. 15, n. 43, p. 4551-4581, 2021.

ERGE, T. Ü. R.; DEMIR, Şirvan Şen. The effect of working life quality of hotel employees on individual creativity performance. **Journal of Tourism Theory and Research**, v. 8, n. 2, p. 53-61, 2022.

WALTON, Richard E. Quality of working life: what is it. **Sloan management review**, v. 15, n. 1, p. 11-21, 1973.

WARHURST, Chris; KNOX, Angela. Manifesto for a new Quality of Working Life. **Human Relations**, v. 75, n. 2, p. 304-321, 2022.

YAMAGUCHI, Hudinilson Kendy. **A Qualidade de vida no Trabalho: Com a palavra os Servidores Técnicos Administrativos em Educação**. 2012. 88p. Dissertação (Mestrado em Engenharia de Produção) - Universidade Federal do Amazonas, Manaus, Brasil, 2012.

ZAHEDY, Mohammad Reza; JAFARI, Seyyed Asghar; RAMEZAN, Majid. Examining the quality of work life: empirical testing indicators in the public organisation. **Annals of Human Resource Management Research**, v. 1, n. 2, p. 99-111, 2021.