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Work-Life Balance and Work Motivation: A Study on Turkish Civil Aviation Employees During the COVID-19 Pandemic[1]

İş-Yaşam Dengesi ve Çalışma Motivasyonu: COVID-19 Pandemisi Sırasında Türk Sivil Havacılık Çalışanları Üzerine Bir Araştırma

Fatih Şahin[2], Halil İbrahim Zeybek[3]

Öz

Bu çalışmanın amacı, COVID-19 salgını sürecinde Türk sivil havacılığında kokpit ve kabin personelinin iş-yaşam dengelerinin çalışma motivasyonlarına etkisini belirlemektir. Bu gözlem, bu alandaki araştırma ortamında önemli bir boşluğa işaret etmektedir. İş-yaşam dengesi konusu akademik literatürde sıklıkla ele alınmakta ve özellikle çalışan verimliliği, iş bağımlılığı, örgütsel bağlılık, tükenmişlik ve cinsiyet eşitsizliği ile ilişkisine odaklanılmaktadır. Bu çalışmanın amacı, yeni bir araştırma alanını temsil eden COVID-19 virüsünün neden olduğu küresel salgın döneminde iş-yaşam dengesinin çalışma motivasyonu üzerindeki etkisini araştırarak sivil havacılık ve turizm alanındaki mevcut literatüre katkıda bulunmaktır. Araştırmanın verileri, Türkiye'deki havayolu şirketlerinde çalışan 458 kokpit ve kabin ekibi üyesinden nicel araştırma yöntemi kullanılarak anket yoluyla toplanmıştır. Bağımsız örneklem t-testleri ve tek yönlü ANOVA testlerini içeren istatistiksel analizler, katılımcıların demografik özelliklerine dayalı olarak iş-yaşam dengesi ve çalışma motivasyonundaki farklılıkları değerlendirmek için kullanılmıştır. Sonuçlar, bu faktörler arasında güçlü bir pozitif korelasyon olduğunu ortaya koymuştur.

Anahtar Kelimeler: *Havacilik, Covid-19, Iş-Yaşam Dengesi, Çalişma Motivasyonu.*

Abstract

The objective of this study is to ascertain the impact of work-life balance on the work motivation of cockpit and cabin crew in Turkish civil aviation during the course of the pandemic caused by the COVID-19. This observation points to a significant gap in the research landscape in this domain. The topic of work-life balance is frequently addressed in academic literature, with a particular focus on its relationship with employee productivity, work addiction, organisational commitment, burnout, and gender inequality. The objective of this study is to contribute to the existing literature on civil aviation and tourism by investigating the impact of work-life balance on work motivation during the period of the global pandemic caused by the COVID-19 virus, which represents a novel area of investigation. The data for the research were collected through a questionnaire from 458 cockpit and cabin crew members working in airline companies in Türkiye, utilising a quantitative research method. The statistical analyses, which included independent sample t-tests and one-way ANOVA tests, were employed to assess the differences in work-life balance and work motivation based on the demographic characteristics of the participants. The results revealed a strong positive correlation between these factors.

Keywords: *Aviation, Covid-19, Work-Life Balance, Work Motivation.*

JEL Codes: *D23, M10*

Araştırma Makalesi [Research Paper]

Araştırma ve Yayın Etiği Beyanı: Çalışmanın araştırma kısmı Gümüşhane Üniversitesi Bilimsel Araştırma ve Yayın Etiği Kurulu'nun 05.03.2023 tarih ve 2023 / 2 sayılı Kararı ile alınan izin doğrultusunda gerçekleştirilmiştir.

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[2]Lecturer, Recep Tayyip Erdoğan University, Vocational School of Social Sciences, Department of Transportation Services, Rize, Türkiye, fatih.sahin@erdogan.edu.tr, ORCID: https://orcid.org/ 0000-0002-4639-707X.

[3]Prof. Dr., Rector of Gümüşhane University, Gümüşhane, Türkiye, zeybekhi@gmail.com, ORCID: https://orcid.org/0000-0002-4097-9079.

Introduction

The pursuit of equilibrium between one's professional and personal lives is an intrinsic aspect of human existence, shaped by the evolution of social structures. The concept of work-life balance (WLB) has undergone significant transformations throughout history, influenced by a range of factors including historical, cultural and socio-economic developments from the dawn of civilisation to the modern era of globalisation (Lockwood, 2003: 2). The modern era that is characterised by the rapid progress of technology and the cutthroat competition in professional world has made achieving that harmonious balance between job duties and personal desires even more important. People are increasingly challenged unification of working and living to feeling fully motivated at work.

The intricate interconnection between professional and personal objectives is a subject of intense scrutiny, underscoring the far-reaching influence of harmonising work and personal life on both individual well-being and organisational performance (Kumari, 2011: 25). The aviation industry, which puts safety at the top of its agenda is particularly interested in human factors—demanded by pilot error. The safety of all those involved in aviation operations is of the utmost importance, and it informs and shapes all operational activities. It is therefore imperative that the psychological well-being of aviation personnel is maintained that a harmonious blend of personal and professional lives is ensured, and that a high level of work motivation is maintained, to ensure aviation safety and an effective organisational safety culture.

The objective of this study is to examine the influence of work-life balance on work motivation, human factors in aviation, and the impact of the Coronavirus Disease 2019 (COVID-19) pandemic on these factors. This is one of the pioneering studies to address the relationship between work-life balance and work motivation in this sector, and it highlights the significant impacts of the COVID-19 pandemic on the tourism and civil aviation industry. In Türkiye, an increasing quantity of research and legislation demonstrates the growing importance of work-life balance and work motivation. However, research on the effects of work-life balance and work motivation on cabin and cockpit crew in aviation remains limited. This study emphasises the necessity of addressing human psychology directly in this context, as existing studies often prioritise technical and ergonomic aspects, overlooking the pivotal role of human factors in aviation safety.

A review of the literature reveals a positive correlation between work-life balance and a few variables that are closely associated with work motivation. These include job satisfaction, organisational performance, employee performance and subjective well-being. To illustrate, Kapo Wong et al. (2020: 14) discovered that work-life balance has a positive effect on job satisfaction, with work motivation acting as a mediator in this relationship and ultimately leading to increased job satisfaction. Hasan et al. (2020: 14) reached the conclusion that employee motivation is significantly affected by flexible working arrangements and the preference for working from home and managing personal lives among women. Mas-Machuca et al. (2016: 596) posit that the achievement of work-life balance is contingent upon the presence of a more motivated and productive workforce, accompanied by analogous benefits, including enhanced relationships with management and greater autonomy over their working lives. Byrne (2005: 56) posited that work-life balance can enhance subjective well-being via job satisfaction when employees exhibit low intrinsic motivation. A synthesis of the studies above reveals a significant relationship between work-life balance and work motivation levels. Work-life balance is a significant factor in job satisfaction and subjective well-being, as well as in employee performance and organisational commitment. Flexible working arrangements and management support are crucial in achieving this balance. Furthermore, work-life balance has a positive impact on organisational performance by emphasising its importance in both personal and professional areas.

Considering the findings of the literature review, it has been established that the relationship between work-life balance and work motivation has not been examined in its entirety, with a particular focus on all dimensions of work-life balance and work motivation. Additionally, the studies that have been conducted thus far have primarily focused on a single dimension, with different variables being explored. The sample groups selected in these studies do not include cabin crew and pilots. Considering the aforementioned considerations, the following research questions (RQ) were formulated with the aim of determining the macro-level effect of work-life balance on the work motivation of pilots and cabin crew, and of ascertaining whether this effect differs significantly according to demographic variables.

RQ1: Is there is a significant relationship between work-life balance and work motivation levels among pilots and cabin crew?

RQ2: Is there is a significant effect of work-life balance on work motivation for pilots and cabin crew?

RQ3: Are the sub-dimensions of work-life balance for pilots and cabin crew have a significant effect on work motivation?

RQ4: Is there is a significant difference in work-life balance for pilots and cabin crew according to demographic variables?

RQ5: Is there is a significant difference in work motivation for pilots and cabin crew according to demographic variables?

1. Materials and Methods

The present study employed a quantitative research methodology. The research was designed in accordance with the relational survey model, which is intended to ascertain the relationship between two or more variables. The relational survey model is a type of research design that is employed to ascertain whether a relationship exists between two or more measurable variables, and, if such a relationship is identified, to determine the direction and strength of this relationship (Karasar, 2020: 114). This design does not provide definitive evidence of a cause-and-effect relationship. However, by offering insights into the potential influence of one variable on another, it can inform predictions about the impact of changes in one variable on the other. In this context, the method was selected to examine the influence of work-life balance on the work motivation of civil aviation employees during the COVID-19 pandemic in Türkiye.

The study population comprises cockpit and cabin employees of airline companies operating in Türkiye. The 'convenience sampling' method was employed for the purpose of selecting the sample. This method is a relatively straightforward and expedient approach to data collection, particularly in comparison to other sampling techniques. This is a type of sampling that is not dependent on probability and is frequently employed in research studies. This sampling technique involves the selection of individuals who are readily accessible and able to communicate with the researcher. The convenience sampling method is typically employed when other forms of sampling are impractical due to constraints such as time, cost, or other considerations (Coşkun et al., 2017: 151).

1.1. Scales

The questionnaire method, which is a quantitative data collection method frequently used in social sciences, was selected as the preferred method for data collection in the study. The data obtained in the study were analysed using the LISREL and SPSS package programmes. The level of significance was set at p=0.05 for the purposes of the analysis. As the scales employed in the study were utilised in disparate sample groups, their reliability and validity were initially subjected to analysis.

Work-Life Balance Scale (WLBS): In the questionnaire the 17-item, 4-factor, 5-point Likert-type 'Work-Life Balance Scale' (Fisher et al., 2009), which was adapted into Turkish by Ekinci and Sabancı (2020) was used. The correlation values of the items in the scale with the other items were found to be above 0.30, and thus, they did not result in a reduction of the scale's reliability. Consequently, no item was removed from the scale. It was determined that the overall reliability level of the scale and the reliability of each factor were at a high level (Cronbach Alpha > 0.70). The prerequisites for conducting factor analysis were examined to ascertain their suitability for the proposed investigation. The first of these conditions is the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy, which determines whether the number of cases in the data set is sufficient for factor analysis. Additionally, the Bartlett sphericity test was employed to examine the existence of a relationship between variables (Tabachnick and Fidell, 2019: 483). The KMO value exceeds 0.60, and the Bartlett test of sphericity is statistically significant ($p < 0.01$). The results demonstrate that the sample data are suitable for factor analysis and that the data are drawn from a multivariate normal distribution (Kan & Akbaş, 2005). The CFA findings for the scale indicated that the factor loadings of the items ranged from 0.60 to 0.96. In order to determine that an item should remain on the scale, the criterion of a factor loading value exceeding 0.45 was employed (Büyüköztürk, 2018: 134). Furthermore, the degree of overlap between the items was examined, as was their loading on a factor. The factor analysis yielded a four-factor structure for the scale, with a total variance explained of 76.135%. Given that the scale exhibited a structure comprising more than a single factor, the "Varimax" vertical rotation was employed.

Multidimensional Work Motivation Scale (MWMS): To measure the work motivation, the 18-item, 6-factor, 7-point Likert-type 'Multidimensional Work Motivation Scale' (Gagné et al., 2010), which was adapted into Turkish by Çivilidağ and Şekercioğlu (2017), were employed in the study. As the correlation value of the items in the scale with the other items was found to be above 0.30 and the reliability level remained unaffected, so, no item was removed from the scale. It was established that the overall reliability of the scale and the reliability of each factor were at a high level (Cronbach Alpha > 0.70). The KMO value exceeded 0.60, and the Bartlett's test of sphericity yielded a statistically significant result ($p < 0.01$). These findings substantiate the suitability of the sample data for factor analysis and confirm that the data originate from a multivariate normal distribution, as postulated by Kan and Akbaş (2005: 230). In order to determine that an item should remain on the scale, the criterion of a factor loading value exceeding 0.45 was employed (Büyüköztürk, 2018: 134). Furthermore, the degree of overlap between the items was examined, as was their loading on a factor. The factor analysis yielded a four-factor structure for the scale, with a total variance explained of 88.061%. Given that the scale exhibited a structure comprising more than a single factor, the "Varimax" vertical rotation was employed.

The findings of the reliability and validity analyses of both scales are presented in Table 1.

Table 1. Reliability and Validity Findings of the Scales

Property	WLBS				MWMS					
	F1	F2	F3	F4	F1	F2	F3	F4	F5	F6
Reliability	0.893	0.931	0.882	0.877	0.922	0.931	0.927	0.922	0.929	0.942
Eigenvalue	4.493	3.499	2.484	2.469	2.788	2.771	2.768	2.719	2.714	2.091
Variance Explained	76.135				88.061					
KMO	0.919				0.939					
Bartlett's Test of Sphericity	$X^2(136)=6005.566$				$X^2(153)=8886.507$					
p	p=0.000				p=0.000					

In order to test the construct validity of the scale, exploratory and confirmatory factor analyses were conducted, respectively. A variety of fit indices are employed to ascertain the appropriateness of the model in CFA. In this study, various fit indices were considered, including the IFI, CFI, RMSEA, GFI, and RMR. Additionally, the Chi-squared goodness of fit, was also taken into account (Table 2). The distribution of the data obtained within the scope of the research was examined using normal distribution analyses and measures of central tendency.

Table 2. CFA Findings of the Scales

Fit Measure	WLBS	MWMS	Good Fit	Acceptable Fit
x^2/df	1.173	1.136	$0 \leq x^2 \leq 2df$	$2 < x^2 \leq 3df$ (Hair et al., 2019:638)
RMSEA	0.019	0.017	$0 \leq RMSEA \leq .05$	$0.03 \leq RMSEA \leq 0.08$ (Schermelleh-Engel & Moosburger, 2003: 52)
CFI	0.99	0.99	$.97 \leq CFI \leq 1.00$	$.95 \leq CFI < .97$ (Hu & Bentler, 1999: 17)
GFI	0.97	0.97	$.95 \leq GFI \leq 1.00$	$.90 \leq CFI < .95$ (Steiger, 1990: 177)
AGFI	0.96	0.95	$.90 \leq AGFI \leq 1.00$	$.85 \leq AGFI < .90$ (Byrne, 1998)
NFI	0.99	0.99	$.95 \leq NFI \leq 1.00$	$.90 \leq NFI < .95$ (Schumacker & Lomax, 1996: 121)
NNFI	0.99	0.99	$.97 \leq NNFI \leq 1.00$	$.95 \leq NNFI < .97$ (Schermelleh-Engel & Moosburger, 2003: 52)
SRMR	0.030	0.016	$0 \leq SRMR \leq .05$	$.05 < SRMR \leq .10$ (Hu & Bentler, 1999: 17)

2. Results and Discussion

2.1. Demographic Findings

Table 3. The Demographic Characteristics of the Participants

Characteristics	n	%	Characteristics	n	%	Characteristics	n	%
Sex			Working duration			Change of living environment		
Female	226	49.30	0-5 years	124	27.10%	Slightly	68	29.30%
Male	232	50.70	6-10 years	161	35.20%	Moderately	84	36.20%
Age			11-15 years	99	21.60%	Extremely	80	34.50%
18-25	33	7.20	16 and above	74	16.20%	Change in sleep habits		
26-33	107	23.40	Flight distance			Slightly	70	30.20%
34-41	110	24.00	Short haul	143	31.20%	Moderately	76	32.80%
42-49	183	40.00	Long haul	151	33.00%	Extremely	86	37.10%
50 and above	25	5.50	Both	164	35.80%	Change of activities/holidays		
Marital Status			Satisfaction with work-life balance			Extremely	232	100%
Single	204	44.50%	Very satisfied	108	23.60%	Change of sport/leisure time habits		
Married	128	27.90%	Satisfied	130	28.40%	Slightly	88	37.90%
Divorced	126	27.60%	Neither satisfied nor dissatisfied	147	32.10%	Moderately	70	30.20%
Duration of marriage			Not satisfied	99	21.60%	Extremely	74	31.90%
0-5 years	43	33.60%	Necessary for work-life balance is…			Change in eating / drinking habits		
6-10 years	39	30.50%	Time management	106	23.10%	Slightly	78	33.60%
11-15 years	26	20.30%	Self-care	122	26.60%	Moderately	69	29.70%
16-20 years	20	15.60%	Socialisation	119	26.00%	Extremely	85	36.60%
Province of residence			Other	111	24.20%	Change in shopping habits		
İstanbul	400	87.30%	Leisure time utilisation			Slightly	79	34.10%
Ankara	22	4.80%	Trip/Going out with the crew	131	28.60%	Moderately	71	30.60%
Antalya	36	7.90%	Spending time alone	105	22.90%	Extremely	82	35.30%

Number of children (n=128)			Playing sport	105	22.90%	The biggest post-pandemic concern		
No child	67	52.30%	Other	117	25.50%	Job loss	154	33.60%
1	36	28.10%	Contribution to the work-life balance of the airline			Financial stagnation	147	32.10%
2	25	19.50%	Nothing	118	25.80%	Social anxiety	157	34.30%
Spouse's employment status			Flight requests	127	27.70%	Receiving support for childcare		
Not working	48	37.50%	Free day	94	20.50%	Yes	40	65.60%
Part-time	37	28.90%	Discounted ticket	119	26.00%	No	21	34.40%
Full time	43	33.60%	Collegiality			From whom support is received		
Spouse being a crew member			Yes	235	51.30%	Family	14	35.00%
Yes	21	16.40%	No	223	48.70%	Organisation	11	27.50%
No	107	83.60%	Stress reduction status of colleague			Neighbour, friend	6	15.00%
Spouse's education status			Yes	236	51.50%	Carer	9	22.50%
High school and below	52	40.60%	No	222	48.50%	Receiving support with housework		
Associate degree	33	25.80%	Impact of jetlag and fatigue on social life			Yes	221	48.30%
Undergraduate and above	43	33.60%	Yes	215	46.90%	No	237	51.70%
Profession			No	243	53.10%	Individual living with		
Captain/F.O	56	12.20%	Affected by COVID-19			At least one adult	270	59.00%
Purser	46	10.00%	Yes	241	52.60%	Alone	188	41.00%
Cabin chief	41	9.00%	No	217	47.40%			
Cabin crew	315	68.80%	During COVID-19…					
Airline worked for			I have never used unpaid leave	295	64.40%			
Airline 1	100	21.80%	I took unpaid leave for a while but I'm working now	163	35.60%			
Airline 2	102	22.30%	Change in private life due to pandemic					
Airline 3	162	35.40%	Yes	232	50.70%			
Other	94	20.50%	No	226	49.30%			

Table 3 shows the demographic characteristics of the participants. A total of 458 participants were reached within the scope of the research, with the gender distribution showing that 50.70% of the participants were male (n=232) and 49.30% were female (n=226). The majority of the participants were between the ages of 42 and 49 (40.0 The participants were predominantly single (44.50%; n=204), married for 0-5 years (33.60%; n=43), residents of Istanbul (87.30%; n=400), and childless (52.30%; n=67). A total of 128 married participants were included in the study. The majority of their spouses were unemployed (37.50%; n=48), were not flight crew members (83.60%; n=107) and had a high school diploma or less (40.60%; n=52). The majority of whom were cabin crew members (68.80%, n=315). The participants were employed by Airline 1 (35.40%, n=162), had been in their roles for between six and ten years (35.20%, n=161), and had experience of both long-haul and short-haul flights (35.80%, n=164), reported a neutral attitude towards their work-life balance (32.10%, n=147), considered self-care an essential aspect of maintaining a healthy work-life balance (26.60%, n=122),trip with their colleagues during their free time (28.60%, n=131). The most frequently cited factor affecting work-life balance was flight requests (27.70%, n=127). The majority of respondents reported a strong bond with their colleagues (51.30%, n=235), also reported that their colleagues helped to reduce their stress (51.50%, n=236), and jetlag and fatigue had no effect on their social life (53.10%, n=243). The participants were mostly affected by COVID-19 (52.60%; n=241). The study revealed that the majority of respondents did not utilise any form of unpaid leave during the period of the pandemic (64.40%, n=295). Furthermore, the pandemic led to a notable shift in their private lives (50.70%, n=232), moderate changes in their living environments (36.20%, n=84), and significant alterations in their sleeping habits (37.00%, n=86). Furthermore, their holidays and activities underwent a significant transformation (100.00%; n=458), while their sports and leisure habits exhibited a slight alteration (37.90%; n=88). Additionally, their eating and drinking habits underwent a notable shift (36.60%; n=85), as did their shopping habits (35.30%; n=82). The greatest concern expressed by participants in the post-pandemic period was social anxiety (34.30%, n=157). Moreover, it was established that they received assistance with childcare (%65.60; n=40), received support from their family for childcare (%35.00; n=14), received support with housework (%48.30; n=221), and resided with at least one adult (%59.00; n=270).

The distribution of the data and descriptive findings are given in Table 4.

Table 4. Data Distribution and Descriptive Findings

Measurements	Central Tendency		s.d.	α	Kurtosis	Skewness
	Mean	Median				
Negative impact of work on life (NIWL)	2.99	3.00	1.00	0.893	-1.242	0.092
Negative impact of life on work (NILW)	3.22	3.25	1.08	0.931	-1.406	-0.114
Positive impact of life on work (PILW)	2.82	3.00	1.15	0.882	-1.306	0.039
Positive impact of work on life (PIWL)	2.77	2.67	1.10	0.877	-1.211	0.122
Work-Life Balance	2.85	2.82	0.86	0.933	-1.022	0.152
Amotivation	4.29	4.33	1.60	0.922	-1.042	-0.146
Intrinsic motivation	3.65	3.50	1.71	0.931	-1.327	0.084
External regulation – social	3.63	3.67	1.70	0.927	-1.271	0.112
Identified regulation	3.70	3.67	1.67	0.922	-1.303	0.084
External regulation – material	3.71	3.50	1.73	0.929	-1.383	0.055
Introjected regulation	3.78	3.67	1.75	0.942	-1.326	0.055
Work Motivation	3.70	3.56	1.42	0.963	-1.272	0.108

As a result of the normal distribution analysis, it was determined that the data obtained from the central tendency measurements examined were from a normal distribution due to the closeness of the mean-median to each other and the kurtosis and skewness being between ±2 (George and Mallery, 2022: 114). At the same time, since the number of participants included in the study was sufficient (n>=30), parametric methods, which are statistically stronger based on the central limit theorem, were applied (Ghasemi and Zahediasl, 2012: 486).

As a result of the scores obtained in the Likert format scales, 0.8-point interval (4/5=0.80) was used to calculate the levels of the participants' responses. In this case, the range corresponding to each measurement level is calculated by adding a score interval of 0.8 to the initial score of 1 point of the Likert scale. In this case, the range of 1-1.80 represents "very low", the range of 1.81-2.6 represents "low", the range of 2.61-3.4 represents "medium", the range of 3.41-4.2 represents "high" and the range of 4.21-5.0 represents "very high" level and if the scale is calculated with total score, then these ranges should be multiplied by the number of items (Durmaz, 2020: 70-71).

It was determined that the work-life balance level of the participants was at a moderate level with 2.85±0.86. When the sub-dimensions of work-life balance were analysed, it was determined that "negative effect of work on life" was 2.99±1.00, "negative effect of life on work" was 3.22±1.08, "positive effect of life on work" was 2.82±1.15 and "positive effect of work on life" was 2.77±1.10.

As a result of the scores obtained in the Likert format scales, a score range of 0.86 (6/7=0.86) was used to calculate the levels of the participants' responses. In this case, the range corresponding to each measurement level is calculated by adding the score interval of 0.86 to the initial score of 1 point of the Likert scale. In this case, the range of 1-3.58 represents low level, 3.59-4.45 represents medium level and 4.46-7.0 represents high level.

It was determined that the study motivation level of the participants was at a medium level with 3.70±1.42. When the sub-dimensions of the level of work motivation were examined, it was determined that the level of work motivation was at a medium level with 4.29±1.60, intrinsic motivation with 3.65±1.71, external regulation-social with 3.63±1.70, personal regulation with 3.70±1.67, external regulation-material with 3.71±1.73 and internal reflected regulation with 3.78±1.75.

2.2. Findings

In this section of the study, Pearson correlation analysis and regression analyses were conducted to address the research questions, as outlined in Table 5 and aligned with the study's objectives.

Table 5.Results of the Analyses of the Relationship Between Variables

No	Variables		1	2	3	4	5	6	7	8	9	10	11	12
1	NIWL	r	1	0.551	-0.547	-0.498	-0.830	0.661	-0.593	-0.602	-0.506	-0.552	-0.554	-0.687
		p		0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*
2	NILW	r		1	-0.497	-0.445	-0.853	0.454	-0.365	-0.388	-0.300	-0.361	-0.372	-0.444
		p			0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*
3	PILW	r			1	0.430	0.742	-0.467	0.413	0.366	0.349	0.344	0.342	0.451
		p				0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*

4	PIWL	r				1	0.697	-0.411	0.301	0.359	0.306	0.32	0.398	0.415
		p					0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*
5	WLB	r					1	-0.634	0.534	0.549	0.462	0.506	0.528	0.636
		p						0.001*	0.001*	0.001*	0.001*	0.001*	0.001*	0.001*
6	Amotivation	r						1	-0.716	-0.700	-0.686	-0.698	-0.741	-0.898
		p							0.001*	0.001*	0.001*	0.001*	0.001*	0.001*
7	IM	r							1	0.616	0.615	0.597	0.624	0.827
		p								0.001*	0.001*	0.001*	0.001*	0.001*
8	ER-S	r								1	0.605	0.621	0.61	0.823
		p									0.001*	0.001*	0.001*	0.001*
9	IR	r									1	0.618	0.631	0.823
		p										0.001*	0.001*	0.001*
10	ER-M	r										1	0.638	0.829
		p											0.001*	0.001*
11	IJR	r											1	0.843
		p												0.001*
12	WM	r												1
		p												
*p<0.05; Pearson Correlation														
Variables: Negative Impact of Work on Life (NIWL), Negative Impact of Life on Work (NILW), Positive Impact of Life on Work (PILW), Positive Impact of Work on Life (PIWL), Work-life Balance (WLB), Intrinsic motivation (IM), External Regulation-social (ER-S), Identified Regulation (IR), External Regulation-material (ER-M), Introjected regulation (IJR), Work motivation (WM)														

RQ 1: The primary objective of this study is to ascertain whether there is a significant relationship between work-life balance and work motivation levels among pilots and cabin crew. Upon examination of the correlation analysis presented in Table 5, it becomes evident that there is a positive and statistically significant relationship between the participants' work-life balance and work motivation ($r=0.636$; $p<0.05$). This finding suggests that as the participants enhance their work motivation levels, their work-life balance will concomitantly improve to a considerable extent. Consequently, the initial research question proposed in the study is validated. The study revealed a significant negative correlation between the negative impact of work on life and the level of work motivation ($r=-0.687$; $p<0.05$). This correlation was found to be highly significant.

The second and third research questions were tested using regression analysis. Prior to conducting the regression analysis, the underlying assumptions of regression analysis, including the normality of the data distribution, the presence of a relationship between the variables, and the absence of autocorrelation and multicollinearity issues between the variables, were evaluated. As illustrated in Table 4, the data pertaining to the variables incorporated into the model within the context of the research exhibit a normal distribution. The results of the analysis, indicating a significant relationship between the variables included in the model, are presented in Table 5.*RQ 2:* The second research question is whether there is a significant effect of work-life balance on work motivation for pilots and cabin crew.

Table 6. Simple Linear Regression Analysis of the Effect of Work-Life Balance on Work Motivation Levels

Variables	**β**	**s.e***	**t**	**p**
Constant	1.190	0.088	13.502	0.001**
Work-life balance	0.686	0.022	31.386	0.001**
*s.e stands for the term "Standard Error". **p<0.05; A linear regression analysis was conducted.				
F:985.066; $F_{(P)}$:0.001; Durbin-Watson: 1.949; R^2:0.684				
Independent: Work-Life Balance				
Dependent: Work Motivation				

The Durbin-Watson value was employed to ascertain the presence of autocorrelation in the regression model for each path coefficient. As this value fell within the range of 1-3, it was concluded that no autocorrelation existed for each regression coefficient (Field, 2018: 514). Furthermore, to assess the influence of the independent variables on the dependent variable within the research model, a multiple linear regression model was constructed, given that there were multiple independent variables. The variance inflation factor (VIF) was evaluated to ascertain the presence of multicollinearity in the relevant model. It was ascertained that there was no multicollinearity, as the VIF value was below 10 (Field, 2018: 555). In light of the aforementioned information, it was determined that the assumptions of the regression analyses were met (Table 6).

Upon analysis of the data presented in Table 6, it can be concluded that there is a statistically significant relationship between work-life balance and work motivation (t=31.386; p=0.001<0.05). Consequently, the second research question proposed in this study is accepted. The model demonstrates that work-life balance accounts for 68.4% of the variance in work motivation (R^2=0.684). The regression equation of the research model is provided below for reference.

The regression equation for the research model is as follows:

Work Motivation= 1.190 + 0.686 * Work-Life Balance (1)

Upon analysis of the regression equation, it was determined that work-life balance had an effect of 0.686 on work motivation. This result indicates that an increase of one unit in the work-life balance of the participants will result in an increase of 0.686 in work motivation.

RQ3: The third research question is whether the sub-dimensions of work-life balance for pilots and cabin crew have a significant effect on work motivation.

The results of the multiple linear regression (MLR) analysis examining the impact of work-life balance sub-dimensions on work motivation levels are presented in Table 7.

Table 7. MLR Analysis Examining the Impact of Work-Life Balance Sub-Dimensions on Work Motivation Levels

Variables	β	s.e.	t	p	Tolerance	VIF
Constant	5.882	0.376	15.630	0.001*		
NIWL	-0.828	0.064	-12.850	0.001*	0.555	1.801
NILW	-0.071	0.056	-1.272	0.204	0.620	1.614
PILW	0.096	0.053	1.826	0.068	0.629	1.589
PIWL	0.089	0.052	1.705	0.089	0.692	1.445
*p<0.05; Multiple Linear regression analysis was conducted.						
F:107.399; $F_{(P)}$:0.001*; Durbin-Watson: 1.951; R^2:0.487						
Independents: Negative Impact of Work on Life (NIWL), Negative Impact of Life on Work (NILW), Positive Impact of Life on Work (PILW), Positive Impact of Work on Life (PIWL)						
Dependent: Work Motivation						

Upon analysis of the values in Table 7, it is determined that the effect of the "negative impact of work on life" dimension on work motivation is significant. This finding supports the third research question of the study (t=-12.850;p=0.001<0.05). The independent variables account for 48.7% of the variance in work motivation (R^2=0.487).

The regression equation for the research model is as follows:

Work Motivation=5.882-0.828* NIWL (2)

Upon analysis of the regression equation, it was determined that the dimension of "negative impact of work on life" had an effect of -0.828 on work motivation. This result indicates that an increase of 1 unit in the dimension of "negative impact of work on life" will result in a decrease of 0.828 in work motivation.

RQ 4: The fourth research question is whether there is a significant difference in work-life balance for pilots and cabin crew according to demographic variables.

A one-way ANOVA analysis was conducted to ascertain whether a notable discrepancy existed between the work-life balance levels of the individuals who participated in the study and the occupational groups to which they belonged. The results of the analysis revealed a significant difference in terms of occupation and work-life balance level, as well as the "positive effect of life on work" and "positive effect of work on life" dimensions (p=0.001<0.05). Upon analysis of the Scheffe Test findings, it was determined that the differentiation originated from a significant difference between the captain/first officer and the participants who were purser, cabin chief and cabin attendant. Additionally, the work-life balance level, "positive impact of life on work" and "positive impact of work on life" dimensions of the captain/first officer participants were found to be higher than those of the purser, cabin chief and cabin attendant participants. As a result of the One-Way ANOVA analysis conducted to determine whether there is a significant difference between the occupational groups in terms of "negative impact of work on life" and "negative impact of life on work" dimensions, significant differences were found (p=0.001<0.05). When the findings of the Scheffe Test conducted to examine which group the differentiation originated from were analysed, it was determined that the difference was significant between the participants who were captain/first officer and the participants who were purser, cabin chief and cabin attendant and that the "negative impact of work on life" and "negative impact of life on work" dimensions of the participants who were captain/first officer were lower than the participants who were purser, cabin chief and cabin attendant.

A one-way ANOVA analysis was conducted to ascertain whether there were notable discrepancies between age groups in regard to their perceived levels of work-life balance. The results of the analysis indicated significant differences between age groups in terms of work-life balance level, the positive effect of life on work, and the positive effect of work on life ($p=0.001 < 0.05$). Upon analysis of the Scheffe Test findings, it was determined that the differentiation between the age groups was significant ($p=0.001$). The mean scores of the participants aged 50 and over were found to be higher than those of the participants aged 18-25, 26-33, 34-41 and 42-49 in terms of work-life balance level, "positive impact of life on work" and "positive impact of work on life" dimensions. The one-way ANOVA analysis revealed significant differences between age groups in terms of the "negative impact of work on life" and "negative impact of life on work" dimensions ($p=0.001 <0.05$). Upon examination of the Scheffe Test findings, it was determined that the significant differences originated from a differentiation between the participants aged 50 and over and those aged 18-25, 26-33, 34-41 and 42-49. Additionally, the averages of the participants aged 50 and over regarding the dimensions of "negative impact of work on life" and "negative impact of life on work" were found to be lower than those of the participants aged 18-25, 26-33, 34-41 and 42-49.

The marital status of individuals, the employment status of their spouses, changes in living environment, alterations in sleeping habits, modifications in sports or leisure time habits, shifts in eating and drinking habits, changes in shopping habits, and the contribution of the airline to work-life balance, as determined through the One-Way ANOVA analysis conducted within the scope of work-life balance levels. The variables under investigation include marital status, spouses' employment status, change in living environment, change in sleeping habits, change in sports or leisure time habits, change in eating and drinking habits, change in shopping habits and the contribution of the airline to work-life balance and its sub-factors ($p>0. 05$. Consequently, there is no discernible difference in work-life balance and its constituent sub-dimensions in relation to marital status, the employment status of spouses, changes in living environment, alterations in sleeping habits, shifts in sports or leisure time habits, modifications in eating and drinking habits, changes in shopping habits and the contribution of the airline to work-life balance.

The independent sample t-test conducted to compare the participants' status regarding the impact of the Coronavirus Disease 2019 (COVID-19) pandemic and their work-life balance levels revealed no statistically significant differentiation between these variables and their sub-factors ($p > 0.05$). Therefore, the levels of work-life balance and its sub-dimensions exhibited by the participants do not vary according to their status regarding the impact of the Coronavirus.

RQ 5: The fifth research question is whether there is a significant difference in work motivation for pilots and cabin crew according to demographic variables.

A one-way ANOVA analysis was conducted to ascertain whether a significant discrepancy existed between the work motivation levels of the individuals who participated in the study and their respective occupations. The results of the analysis revealed a significant differentiation between occupational status and work motivation level, with the following dimensions being identified: intrinsic motivation, external regulation-social, personal regulation, external regulation-material and introjected regulation ($p=0.001 < 0.05$). Upon examination of the Scheffe Test findings, it was determined that the differentiation originated from a significant difference between the participants who were captain/first officer and those who were purser, cabin chief, and cabin attendant. Additionally, the level of work motivation and the specified sub-dimensions of the participants who were captain/first officer were found to be higher than those of the participants who were purser, cabin chief, and cabin attendant.

The results of the one-way ANOVA analysis indicated a significant differentiation between the occupation of the participants and the dimension of "amotivation" ($p=0.001 < 0.05$). Upon analysis of the Scheffe Test findings, it was determined that the differentiation originated from a discrepancy between the participants who held the roles of captain/first officer and those who held the roles of purser, cabin chief, and cabin attendant. Additionally, the "amotivation" dimension exhibited a lower prevalence among the captain/second pilot participants when compared to the purser, cabin chief, and cabin attendant participants.

A one-way ANOVA analysis was conducted to ascertain whether a statistically significant discrepancy existed between the age of the participants and their levels of work motivation. The results of the analysis revealed a significant differentiation between age and work motivation level, with the "intrinsic motivation", "external regulation-social", "identifed regulation", "external regulation-material" and "introjected regulation" dimensions exhibiting a p-value of less than 0.05 ($p=0.001$). Upon examination of the findings of the Scheffe Test, which was conducted to ascertain the source of the differentiation, it was determined that the difference was significant between the participants aged 50 and over and those aged 18-25, 26-33, 34-41 and 42-49. Additionally, it was observed that the level of work motivation and the specified sub-dimensions of the participants aged 50 and over were higher than those of the participants aged 18-25, 26-33, 34-41 and 42-49.

A one-way ANOVA analysis was carried out to determine whether there was a significant difference between "amotivation" and the age of the participants, a significant differentiation was found between the dimensions of age and amotivation (p=0.001<0.05). When analysing the results of the Scheffe Test, which was used to check which group the differentiation came from, it was found that the difference was between the participants aged 50 and over and the participants aged 18-25, 26-33, 34-41 and 42-49, and that the dimension "amotivation" of the participants aged 50 and over was lower than that of the participants aged 18-25, 26-33, 34-41 and 42-49.

One-way ANOVA analysis was performed to determine if there was a significant difference between the contribution of the airline to work-life balance and the level of work motivation of the participants. As a result of this analysis, a significant difference was found between the contribution of the airline to work-life balance and the level of work motivation (p=0.022<0.05), 'external regulation-material' (p=0.017<0.05) and 'introjected regulation' (p=0.049<0.05) dimensions. When analysing the results of the Scheffe Test, which was used to examine which group the differentiation originated from, it was found that the difference was between the participants who thought that the airline did not make any contribution to work-life balance and the participants who thought that the airline provided flight requests and discounted tickets as a contribution, and that the participants who thought that the airline made no contribution to work-life balance had no contribution to work motivation, 'external regulation material' and 'introjected regulation' were lower than the participants who thought that the airline provided flight requests and discounted tickets as a contribution to employees' work-life balance.

The one-way ANOVA analysis was performed to compare marital status, spouse's employment status, change in living environment, change in sleeping habits, change in sports or leisure time habits, change in eating and drinking habits and change in shopping habits with work motivation levels of individuals, no significant differentiation was found between marital status, spouse's employment status, change in living environment, change in sleeping habits, change in sports or leisure time habits, change in eating and drinking habits and change in shopping habits and work motivation and its sub-factors (p>0. 05). As a result, work motivation and its subfactors did not differ according to marital status, spouse's employment status, change in living environment, change in sleeping habits, change in sports or leisure habits, change in eating and drinking habits and change in shopping habits.

The independent samples t-test was conducted to compare the participants' status of being affected by COVID-19 and work motivation levels, no significant difference was found between the participants' status of being affected by COVID-19 and work motivation and its sub-dimensions (p>0.05). As a result, participants' levels of study motivation and its sub-dimensions do not differ according to their status of being affected by COVID-19.

Conclusion

The concept of work-life balance has been demonstrated to have a positive impact on overall work-life happiness, productivity and job satisfaction. This is achieved by enabling employees to effectively manage the boundaries between their professional and personal lives. This equilibrium can assist in the reduction of stress, the maintenance of healthy relationships and the enhancement of overall well-being. Recent research also demonstrates that employees exhibit greater motivation, improved health and greater engagement in organisations that prioritise work-life balance (Baran and Şener, 2023). It can therefore be posited that the assurance of work-life balance represents a pivotal element in the success of employees and businesses.

It has been demonstrated that employees who are able to achieve a satisfactory work-life balance tend to display higher levels of motivation. A favourable work-life balance ensures that employees are more rested and energised, which in turn contributes to greater efficiency in their work. The ability to achieve a healthy work-life balance allows employees to dedicate time to personal goals as well as career goals, to focus better on their work by reducing stress, to demonstrate greater commitment to their work and to report greater satisfaction with their work (Pelit and Çetin, 2022: 47).

This situation, which is valid in almost all sectors, may be subject to slight variation in the aviation sector, which constitutes an important component of the tourism sector with its tourism transportation dimension, particularly in terms of the significance attributed to work-life balance. The presence of flexible working conditions, lengthy working hours, prolonged periods of separation from family, elevated stress levels and an increased sense of responsibility may collectively diminish employee motivation, thereby compromising aviation safety and security, as well as operational efficiency. During global health crises such as the COVID-19 pandemic, a decline in employee motivation may precipitate an increase in operational failure.

The objective of this study is to identify the effects of work-life balance on work motivation in the aviation industry. In order to achieve this, the study will examine which dimensions of work-life balance affect which dimensions of work motivation in aviation professionals. Furthermore, the study will investigate how to create a safe and secure aviation

environment. By a review of the literature and the application of statistical methods, this research demonstrates the interrelationship between work-life balance and work motivation and emphasises the importance of developing a balanced approach in high-risk areas of aviation.

The descriptive analyses, variance analyses and t-test results indicated that the participants' work-life balance level was at a medium level. Furthermore, there was a positive and highly significant relationship between work-life balance and work motivation. It was observed that work-life balance was the sole explanatory factor in work motivation, accounting for 68.4% of the variance. Upon analysis of the relationship between the dimensions, it was determined that the effect of the "negative impact of work on life" dimension on work motivation was significant and negative. However, it was concluded that the global crisis of the Coronavirus pandemic, which had a significant impact on the world's economies, did not have any direct impact on work-life balance and work motivation for cockpit and cabin employees.

It is a common occurrence for individuals to join organisations with the dual objective of obtaining employment and advancing their career. It is therefore recommended that managerial, organisational and psychosocial motivational tools are planned for development and execution in order to achieve high work motivation. In contrast with the prevailing view that remuneration is the primary driver of employee motivation, research indicates that "job design" exerts a more significant influence on work motivation (Mullins, 2005: 231). In light of the aforementioned considerations, the following suggestions are put forth for discussion.

1. It has been established that employees in the cabin should be afforded the highest priority in terms of ensuring a healthy work-life balance.
2. The implementation of training programmes for airline employees on time management, stress management, crisis management and the importance of maintaining a healthy work-life balance can enhance motivation and improve overall performance.
3. It is perceived from the participants that jetlag and fatigue have an impact on social interactions. In this context, ensuring sufficient time for rest and recovery between flights through the implementation of a more balanced and predictable flight schedule for cockpit and cabin crew may positively influence passenger interactions by contributing to more energetic and engaged cockpit and cabin crew. Furthermore, it may facilitate the allocation of sufficient time for social activities for cockpit and cabin crew.
4. The provision of comprehensive support to cockpit and cabin crew personnel, encompassing discounted tickets, complimentary day-off and flight requests, has the potential to enhance their motivation to work by facilitating the management of their work-life balance.
5. It is possible to form alliances with other airlines and industry stakeholders with a view to establishing standardised policies that prioritise the welfare of cockpit and cabin crew. This approach could facilitate the creation of a culture that promotes work-life balance across the industry, with a positive knock-on effect for the work-life balance of cockpit and cabin crew.

In conclusion, it is proposed that those responsible for decision-making in the air transport and tourism industry should collaborate on studies designed to enhance the overall travel experience for tourists and foster positive perceptions of destinations and airlines. This can be achieved by addressing the work-life balance of cockpit and cabin crew. Furthermore, it is recommended that studies be conducted with relevant internal and external stakeholders on the employees of the pertinent transportation modes with the objective of enhancing the positive travel experience of tourists who prefer sea, road, and railway travel.

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