

**WORK-LIFE BALANCE, HAPPINESS AT WORK, AND EMPLOYEE  
PERFORMANCE: THE MEDIATING ROLE OF FRMS AT PERUM LPPNPI  
DENPASAR**

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**Abstract:** This study is conducted to analyze the influence of WLB and Job Happiness on operational performance, mediated by the FRMS, refer to operational employees of Perum LPPNPI Denpasar. The study use a quantitative descriptive approach, involving 100 respondent of Operational Employees to fill up the questionnaires. The results show that Work-Life Balance and Job Happiness significantly influence employee performance, meanwhile the FRMS is unable to stand as a mediating variable. A Proper implementation and evaluation of FRMS should be applied to strengthens the influence of WLB and Job Happiness on employee work performance. The implication of this research is managing WLB and FRMS to improve the employee performance and as recommendations for the better implementation of FRMS. Studi ini menganalisis pengaruh WLB dan Kebahagiaan Kerja terhadap kinerja operasional, dimediasi oleh FRMS karyawan operasional di PERUM LPPNPI Denpasar, menggunakan deskriptif kuantitatif dengan 100 responden. Hasilnya menunjukkan WLB dan Kebahagiaan Kerja secara signifikan mempengaruhi kinerja karyawan, sementara FRMS belum mampu memediasi. Penerapan dan evaluasi yang tepat dari FRMS sebaiknya diterapkan guna memperkuat pengaruh WLB dan Kebahagiaan Kerja terhadap kinerja karyawan. Implikasi penelitian dititikberatkan pada WLB dan risiko kelelahan untuk meningkatkan kinerja karyawan dan rekomendasi untuk implementasi FRMS yang lebih baik.

**Keywords:** Work-Life Balance, Job Happiness, Employee Performance, Fatigue Risk Management System, Air Navigation Services Provider.

### **Introduction**

Perum Lembaga Penyelenggara Pelayanan Navigasi Penerbangan Indonesia (Perum LPPNPI, 2025) is the only one Air Navigation Services Provider, state-owned company of Indonesia. With the vision of “*The Trusted partner for the Aviation Community*”, Perum LPPNPI has responsibilities in the terms of Air Navigation Services Management including of the safety and efficiency of Air Traffic Flow in Indonesia Airspace. One of their strategic branch is Perum LPPNPI Branch of Denpasar.

According to (Perum LPPNPI, 2017) The Branch Office Denpasar is responsible to provide the Air Navigation Services within Bali Airspace. The Operational Employee, refers to the regulation of (PERUM LPPNPI, 2023) about Employee Carrier Management is divided into 3 as follows : The *Air Traffic Controllers*, *The Flight Services Officers*, and *The Flight Data Officers*. The Previous Research conducted by (Lamp et al., 2017) stated that the implementation of FRMS System is need a comprehensive operational knowledge and a specific expertise that

understand about every single working position. It would help the implementation become suitable and not “*one-size-fits-all*.”

Every single day, the operational employee have a crucial role in providing the Air Navigation Services. They are facing a high-pressure / tension of work, have to finish several work simultaneously in a single time, taking a correct decision in a second, and it challenges their stabilities. Another factor of Balinese culture value called “Ngayah” also applied in the middle of the dynamical life. This is the reason why this study is concerned to the Work-Life Balance, as it is matters to be kept and the operational employee stay conducive. The research of (Gragano et al., 2020) stated, the focus of Work-life Balance process that needed by the communities is different. It depends to the several factors, one of the is a work satisfactory that would be different from every single unit / division. Refer to the previous article of (Sumakud et al., 2021) it found that the working environment, happiness at work and the emotional intelligence in a simultaneously affects the employee performance in a positive meaning.

As the Air Navigation Services is provided in 24 hours and 7 days, it is potentially affects an imbalance situation and a new issue, as examples a demotivation and also reduction of employee performance. In the peak, it would increase the stress of the employee as the impact of fatigue. In this context, the implementation of Fatigue Risk Management System (FRMS) is showed off as a strategy to keep the health of the employee and also capable to reduce the risk of fatigue.

A Specific research about FRMS by (Sprajcer et al., 2022) concluded that when it seems the FRMS is effectively implemented in the organization, with the situation in this case: the safety culture is not well applied and the organization is lack of resources, is well applied, then the FRMS implementation is become challenging. Refer to the research of (Maisey et al., 2022) stated that the Final FRMS diagnostic tools would make a company being able to examine the level of FRMS implementation sistematically, and also being capable to indentify the obstacles and potential things, to provide the reduction of the risk. Both of the previous research is also stand as the background of this study, considering of the real situation in Branch Office Denpasar is relevant. Then, this study is conducted to enrich the studies about FRMS as a mediated role in between of Work-life balance, happiness at work that affecting the employee performance, as the FRMS studies is still not so easily to find especially in the Air Navigation Services Provider Company.

The Research of (Bourgeois-Bougrine, 2020) found that if the management is looking for the flexible ritm to manage the fatiuge of the pilot, in the same time also try to make it stable between the productivities, the safety and also the company cost is a normal situation. The safety that applied refers to the fatigue-related accident avoidance method, is the only thing that capable to manage the risk of the company collapse. So, because of that, this study is matters to be conducted, to provide a comprehensive understading about the effect of Work-Life Balance and happniess at work to the employee performance and also how the FRMS is stand out in this relations. This study is examining seven (7) hypotheses according to the Theory and actual empirical phenomenon that happened in Perum LPPNPI Branch Office Denpasar. The empirical phenomenon is provided from the pre- study interviews that held with the Management of Branch Denpasar.

During this time, the Fatigue Risk Management System is still a “brand new” thing in Indonesia, which is under development and research of Perum LPPNPI Headquarter. In the same period, The HQ instructed all the branches, one of the is the Perum LPPNPI Branch Office Denpasar, to find out, defining the problem, focusing to the issues that could be solved with the FRMS and reported the results of implementating FRMS. Considering the results of each branches (which the FRMS is well adapted and implemented) The HQ would be some advices to the best practices general FRMS method in Perum LPPNPI.

This Study is aiming to find out how the Work-Life Balance and the Happiness at work affect the operational employee performance Mediated by fatigue risk management system Perum LPPNPI Branch of Denpasar, which would be generate several suggestion for better improvement of FRMS Implementation in Indonesia, especially in Perum LPPNPI. The last, this study is conducted to contribute in the global research in the terms of Human Capital and as practical suggestions to the company in the need of managing and raising the operational employee performance.

**Method**

According to (Ghanitri & Hakim, 2024) the sampels should be able to show the characteristic of a wider group. The Sampels shall be able to stand as a population. The Sample shall be choosen wisely, depend to the relevancy of the study theme. Instead of the sampling method, this study already gathered several information from the pre-study interview with the Operational Manager and the Junior Manager of the Planning and Evaluation of Operation APP/TMA.

The Sampling method used in this study is according to the purposive sampling technique with the criteria, the operational employee that work in the operational roles as follows: 69 of ATC Officers, 24 of FSO Officers and 7 of FDO officers with the total of 100 respondents. The Data is collected and gathered from the Questionare that send through the respondents that consist of instruments with the 5 point Likert Scales. Before the questionare is spreaded out, the questionare is examined about the Validities and Reliabilities. In the time of filling in the questionare, this moment is accompanied by the researcher to the respondents would be understand to describe the situations. The Variabels used are The Work-Life Balance, The Happiness at work, The Fatigue Risk Management System (FRMS), and the employee performance. Every single variable is calculated with the indicators that adopted from the previous research and adjusted to the context of organization. The description table of questionnaire items as follows:

No	Pernyataan	Frekuensi Jawaban Responden					Skor	RATA RATA	Kriteria
		SKS	KS	C	S	SS			
		1	2	3	4	5			
1	Saya mendapatkan kebijakan yang ramah keluarga yang diterapkan di Perum LPPNPI Cabang Denpasar	0	1	18	37	44	424	4,24	Sangat Baik
2	Saya mendapatkan jam kerja yang fleksibel di Perum LPPNPI Cabang Denpasar	0	3	19	47	31	406	4,06	Baik
3	Saya mendapatkan Hak Program Insentif di Perum LPPNPI Cabang Denpasar	0	4	13	48	35	414	4,14	Baik
4	Saya mendapatkan Hak Program kesehatan di Perum LPPNPI Cabang Denpasar	3	6	22	32	37	394	3,94	Baik
5	Saya mendapatkan Hak Program <i>Work-Life Balance</i> di Perum LPPNPI Cabang Denpasar	0	6	29	41	24	383	3,83	Baik
Jumlah							2021	20,21	BAIK
Rata – rata							404,2	4,04	

**Figure 1. The work-life balance questionnaire items**

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No	Pernyataan	Frekuensi Jawaban Responden					Skor	RATA RATA	Kriteria
		SKS	KS	C	S	SS			
		1	2	3	4	5			
1	Saya selalu berfikir positif terhadap apa yang terjadi di Perum LPPNPI Cabang Denpasar	0	2	21	43	34	409	4,09	BAIK
2	Saya optimis terhadap kemampuan diri saya di Perum LPPNPI Cabang Denpasar	2	0	5	48	45	432	4,32	SANGAT BAIK
3	Saya mampu untuk memecahkan permasalahan yang terjadi ketika bekerja di Perum LPPNPI Cabang Denpasar	2	0	3	51	44	435	4,35	SANGAT BAIK
4	Saya mampu untuk mengendalikan diri saya selama bekerja di Perum LPPNPI Cabang Denpasar	2	0	3	54	41	424	4,24	SANGAT BAIK
5	Saya mampu bekerja sama dengan rekan kerja untuk menyelesaikan tugas di Perum LPPNPI Cabang Denpasar	2	0	3	44	51	442	4,42	SANGAT BAIK
Jumlah							2142	21,42	SANGAT BAIK
Rata – rata							428,4	4,28	

Figure 2. The Happiness at work questionnaire items

No	Pernyataan	Frekuensi Jawaban Responden					Skor	RATA RATA	Kriteria
		SKS	KS	C	S	SS			
		1	2	3	4	5			
1	Saya diminta untuk bekerja paling lama 8 (delapan) jam di Perum LPPNPI Cabang Denpasar	2	0	24	31	43	413	4,13	BAIK
2	Saya bekerja paling lama selama 40 (empat puluh) jam dalam 1 (satu) minggu di Perum LPPNPI Cabang Denpasar	0	0	10	42	48	438	4,38	SANGAT BAIK
3	Saya bekerja selama 2 jam dengan waktu istirahat sekurang – kurangnya 30 menit baik sebagai Controller, Assistant, atau Supervisor di Perum LPPNPI Cabang Denpasar	0	5	9	33	53	434	4,34	SANGAT BAIK
4	Saya diberikan jeda antar shift kedinasan selama 11 (sebelas) jam atau lebih di Perum LPPNPI Cabang Denpasar	2	3	6	36	53	435	4,35	SANGAT BAIK
5	Saya diberikan libur sekurang-kurangnya 48 Jam setelah berdinis selama 5 hari berturut – turut di Perum LPPNPI Cabang Denpasar	2	0	12	31	55	437	4,37	SANGAT BAIK
6	Saya diberikan dinas “Standby” yang kemudian diakui sebagai hari kerja di Perum LPPNPI Cabang Denpasar	29	12	14	23	22	202	2,02	KURANG BAIK
7	Saya diberikan minimal 30 (tiga puluh) menit jeda istirahat setelah melaksanakan pemanduan selama 2 (dua) jam berturut – turut di Perum LPPNPI Cabang Denpasar	5	2	10	29	54	425	4,25	SANGAT BAIK
8	Saya diberikan Shift Malam (3 dan 4) tidak lebih dari 10 jam di Perum LPPNPI Cabang Denpasar	6	6	8	35	45	407	4,07	BAIK
Jumlah							3191	31,91	BAIK
Rata – rata							398,8	3,98	

Figure 3. The Fatigue Risk Management System (FRMS) questionnaire items

No	Pernyataan	Frekuensi Jawaban Responden					Skor	RATA RATA	Kriteria
		SKS	KS	C	S	SS			
		1	2	3	4	5			
1	Saya mampu bekerja tepat waktu di Perum LPPNPI Cabang Denpasar	2	0	5	45	48	437	4,37	SANGAT BAIK
2	Saya mampu menyelesaikan pekerjaan sesuai dengan jumlah tugas secara tuntas di Perum LPPNPI Cabang Denpasar	2	0	3	42	53	444	4,44	SANGAT BAIK
3	Saya mampu bekerja secara efisien di Perum LPPNPI Cabang Denpasar	2	0	3	42	53	444	4,44	SANGAT BAIK
4	Saya mampu dan terampil untuk bekerja sesuai tupoksi di Perum LPPNPI Cabang Denpasar	2	0	3	35	60	451	4,51	SANGAT BAIK
5	Saya mampu untuk berkolaborasi dengan rekan kerja untuk menyelesaikan tugas di Perum LPPNPI Cabang Denpasar	2	0	3	44	51	442	4,42	SANGAT BAIK
Jumlah							2218	22,18	SANGAT BAIK
Rata – rata							443,6	4,43	

**Figure 4. The Employee Performance questionnaire items**

The Technic of Data Analyst used is with the Structural Equation Modeling (SEM) Approach base on Partial Least Square (PLS) from the SmartPLS application. The SEM/PLS is chosen to the context of simplified method to the mediating research. The SEM/PLS is also defining several crucial data and its interpretations as follows: the validity & reliability tests (inc. Cronbach's Alpha, AVE, CR results). The Calculations consist of outer models and inner models, and is used to find out the relations of the variables and to examine the hypotheses. The Study is located at the operational Building of Perum LPPNPI Branch Denpasar during the period of May 2024 until May 2025.

### Discussion

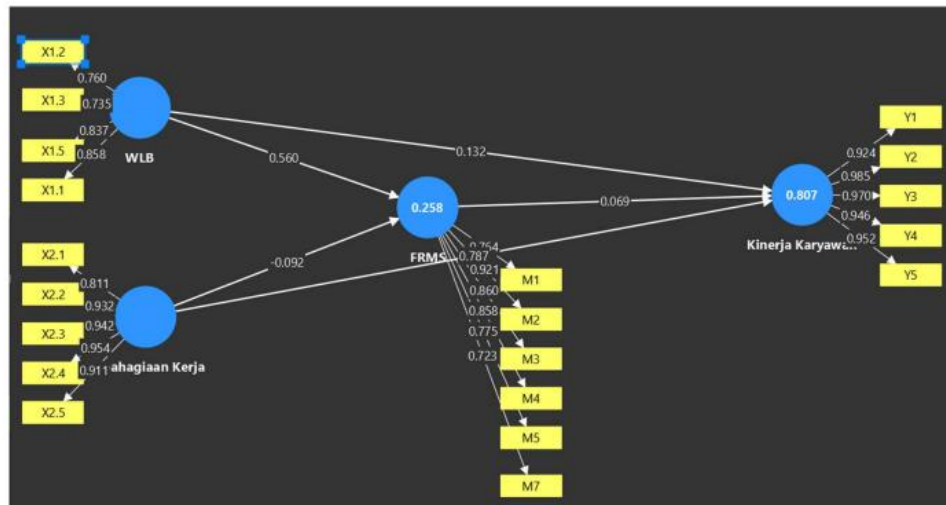
The results of the data calculation using SmartPLS show that every single indicators and inside the outer models, is able to following the requirement of Validities and Reliabilities. The of Average Variance Extracted (AVE) > 0,5 and The Composite Reliability > 0,7, it means that the instrument of this study is having a good internal consistency. The Result of the Rsquare are:

R-square - Overview		
	R-square	R-square adjusted
FRMS	0.258	0.242
Kinerja Karyawan	0.807	0.800

- The  $R^2$  value of Fatigue Risk Management System is 0,258, it means, the Variable of Work-Life Balance and the Variable of happiness at work is describing the Variable of Fatigue Risk Management System about 25,8% and the rest about 74,2% is affected by another variable, so the effect is Weak because its value is not more than 0,50.
- The  $R^2$  value of Employee Performance is 0,807, it means, the Variable Work-Life Balance, The Variable Happiness at work and The Mediating Variable Fatigue Risk Management System is explaining the Employee Performance about 80,7%, and the rest of 19,3% is affected by another variable, so the effect is Strong because its value is more than 0,75.

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The Next Step is examining the inner models and the result of bootstrapping show the results as follows:



Total effects - Mean, STDEV, T values, p values					
	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	P values
FRMS -> Kinerja Karyawan	0.069	0.091	0.082	0.844	0.399
Kebahagiaan Kerja -> FRMS	-0.092	-0.078	0.189	0.489	0.625
Kebahagiaan Kerja -> Kinerja K...	0.780	0.764	0.078	10.052	0.000
WLB -> FRMS	0.560	0.567	0.119	4.691	0.000
WLB -> Kinerja Karyawan	0.170	0.183	0.066	2.599	0.011

Specific indirect effects - Mean, STDEV, T values, p values					
	Original sa...	Sample mean ...	Standard devia...	T statistics...	P values
Kebahagiaan Kerja -> FRMS -> Kinerja Karyawan	-0.006	0.003	0.025	0.256	0.798
WLB -> FRMS -> Kinerja Karyawan	0.039	0.047	0.040	0.973	0.331

- The Work-Life Balance is affecting positive significantly to the Employee Performance.
- The Happiness at work is affecting positive significantly to the employee performance.
- The Work-Life Balance is affecting positive significantly to the FRMS.
- The Happiness at work has no effect to the FRMS.
- The FRMS has no effect to the Employee Performance.
- The FRMS is unable to stand out the mediating role the effect of Work-Life Balance and happiness at work to the Employee Performance significantly.

The results is consistent with several previous studies that take a concern into the Work-life Balance and Happiness at work in raising the employee performance. One of them is a research of (Asari, 2022) that conclude that the work-life balance is affecting positive significantly to the employee performance with the work satisfactory as a mediating role. The Results is also supporting the reserach of (Ratinia Sarani, 2023) which stated that the happiness at work provide a positive significant affects to the employee performance with the contribution of 50,1%.

This Results is also supporting (Skybrary, n.d.) that the effective implementation of FRMS may increase the crew awareness, provide a better work-life balance and reducing the absence that caused by the fatigue crew. In the same way, this results is not supporting the previous study from (Celayix & Chloe Driver, n.d.) where the effective FRMS is not only reducing the accident and injuries in the workplace but also to keep the employee fit and healthy and also stay happy, so it would be contribute to the employee prosperity.

This study also show that the FRMS is not capable yet to stand out as strong method to increasing the employee performance effectively. The good Implementation of FRMS is not enough to act as mediator to increase the performance, it means this study is need to be continue in the future, especially in the work with the high level concentration needs such as the air navigation services provider. This results is also in the same meaning of the book by (Bowers et al., 2016) that concludes, even though the FRMS maybe help to reduce the fatigue level and increase the Work-life balance, the effect of the employee is not always direct effect or significant.

There are several another factors as follows: managerial support, work satisfactory and the company policies that may affect better in the terms of increasing the employee performance, instead of the FRMS itself. The FRMS need to be evaluated, more explored and more developed so would be affects the positive effects of Work-life Balance and happiness at work to the employee performance. The Local culture context in Bali would be strengthen the approach oh holistic welfare in managing Human Capital.

### **Conclusion**

The Conclusions of this study are the Work-Life Balance and Happiness at work is affecting positive significantly to the Employee Performance. Suddenly, The Fatigue Risk Management System is still unable to mediate and strengthen the relations. It means, the FRMS is still not being a strategic element in the terms of increasing the employee performance effectively. The Practical Implications from this study are the needs of updating and developing the company policies that supporting the work-life balance and happiness at work, and also a comprehensive evaluation of FRMS as a fatigue management system so the sistem would be well implemented, developed and integrated as examples, The HQ of Perum LPPNPI should be gather all of the information needed to be evaluated. Since the FRMS implemented already from 2022, then better if the HQ collects the comprehensive report and assess all the need in the consideration of better implementation. The second, Perum LPPNPI Denpasar Branch should be do an independent reseach and development about the effective FRMS Implementation that related to the managing of Employee working flow – rest – break as follows: the rotation of working positions, optimization of Control Working Position/Working Sector operational hours. The suggestion for the future research are to expand this kind of studies with another related variable as examples: the working stress, the job proportions, and leadership qualities as the factors that may affects the effectivity of FRMS implementation in the Air Navigation Services provider company.

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