

The Relationship Between Work Motivation and Job Satisfaction: A Meta-Analysis Study

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Abstract

Job satisfaction is an attitude and feeling where an employee enjoys and feels happy for all roles and achievements in their work. Various kinds of research on job satisfaction have been done and one of them is work motivation has a relationship with job satisfaction. This study aims to analyze the relationship between work motivation and job satisfaction. The research method used is meta-analysis with secondary data sources. A total of 27 pieces of literature discussing the relationship between work motivation and job satisfaction in the last 10 years have been collected from index databases such as Emerald, ScienceDirect, Elsevier, Google Scholar, SINTA and Garuda Portal. The data were analyzed using correlation meta-analysis with the help of the Meta-Mar online website. The results show that the correlation value of random effect size ($I^2 = 95\%$) is .519 (95% CI = .437; .715) with a significance value of .001 ($p\text{-value} < .05$), which means that a large effect size exists. Therefore, work motivation and job satisfaction have a significant and strong relationship. The Rosenthal Fail-safe Number value is 7739 ($F\text{-s } N > 5K+10$), which means that this study is free from publication bias.

Keywords A meta-analysis; job satisfaction; work motivation

INTRODUCTION

In carrying out daily activities of course there is something that moves us, for example, like we have a desire to get good grades in a lesson, then we will be motivated to study hard, another example is when we want to become experts in a field, we will be motivated to train hard. As with work, of course we will be motivated to work hard or diligently if we feel satisfaction in the work. Job satisfaction is an important condition for employees or employees in most organizations (Alrawahi, Sellgren, Altouby, Alwahaibi, & Brommels, 2020). Job satisfaction can help organizations to achieve their goals, because with job satisfaction, employee performance will be achieved.

A survey on work motivation of 73 thousand respondents from 141 countries in the world, including Indonesia, was conducted by an International Research Institute (Gallup Worldwide). Only 8% of Indonesian employees are serious about their work and have work motivation, as seen from the results of a Gallup Worldwide survey. As many as 92% of employees do not have work motivation in their work, employees do so only because they are forced or by the company's demands. Therefore, the purpose of this research is to see how strong the relationship between work motivation and job satisfaction is. Because it is important to grow work motivation so that in our work, we do it wholeheartedly and without feeling forced.

In this study, job satisfaction is associated with work motivation. Motivation itself comes from the Latin "mover" which means to move. Motivation is an internal drive that drives us to do or do something. Many researchers agree that motivation is a psychological process that leads to behavior and this process cannot be measured or observed directly



(Locke & Lotham, 2004). Furthermore, Pinter (1998) defines job motivation as the set of internal and external forces that initiate job-related behavior and determine its form, direction, intensity and duration. In other words, work motivation is an impulse within a person to perform job-related behavior.

Then job satisfaction is a pleasant or positive emotional state, resulting from the assessment of one's job or work experience (Lambrou et al., 2010). Furthermore, job satisfaction is the result of employees' perceptions of how well their work provides things that are considered important (Alniaçık, Alniaçık, Akçin, & Erat, 2012). Then another understanding related to job satisfaction is that job satisfaction is something multidimensional with intrinsic and extrinsic factors. Previously this included ability, achievement, advancement, compensation, co-workers, creativity, freedom, moral values, social services, and working conditions. Then the latest includes authority, policies and practices, recognition, responsibility, security and variety (Wang & Lee, 2009). So job satisfaction is an employee's perception of how well and how his job gives satisfaction. Job satisfaction also consists of intrinsic and extrinsic factors that affect job satisfaction.

There is a meta-analysis study conducted by Judge, Piccolo, Podsakoff, Shaw, & Rich (2010) to determine the relationship between pay, which is a motivational factor, with job satisfaction resulting in both having a positive correlation. Motivation in the form of pay has a relationship with employee job satisfaction. Those who earn more money feel more satisfied than those who earn less. A meta-analysis study related to the relationship between motivation and job satisfaction was also conducted by Homberg, McCarty, & Tabvuma (2015). Based on 28 separate studies, the results show that public service motivation is positively correlated with job satisfaction and there is no evidence of publication bias. The motivation given in the form of offering opportunities for individuals to serve the public will strengthen the relationship between public service motivation and job satisfaction. A recent meta-analysis study on the relationship between job satisfaction and work motivation was also conducted by Juhji, Ma'mur, Nugraha, Tarihoran, & Syarifudin (2022). The work motivation of madrasa teachers who are the research samples will increase if their welfare and job satisfaction can be handled properly. Giving rewards and support so that teachers can actualize themselves is one of the activities that are felt to increase work motivation.

METHOD

This study uses a correlation meta-analysis method by processing data from the results of several similar correlational studies that already exist. The research was conducted in several stages, namely formulating problems, determining exclusion and inclusion criteria, searching for literature, coding, and analyzing data using statistical methods. Researchers want to know the strength of the correlation between work motivation and job satisfaction, so that the statistical effect size used is the correlation value (r). All literature that meets is examined for screening based on the inclusion criteria that have been set, namely:

1. Research on the relationship between work motivation and job satisfaction in English and in Indonesian

2. containing the keywords 'motivasi', 'motivasi kerja', 'motivation', 'work motivation', 'kepuasan kerja', and 'job satisfaction'
3. Published within the last ten years (starting in 2012)
4. Include the correlation value (r) and the number of samples (n)
5. The research subject is a worker.

This study aims to see the effect size of the correlation between work motivation and job satisfaction, so that statistical calculations carried out include calculating effect sizes, testing effect size heterogeneity, calculating summary effects, and testing publication bias. Data analysis in this study was carried out with the help of the Meta-Mar v3.5.1 website (free Online MetaAnalysis Service) and was compiled based on the PRISMA (Preferred Reporting Items for Systematic Review and Meta Analysis) and MARS (MetaAnalysis Reporting Standards) guidelines.

RESULTS AND DISCUSSION

Literature Collection

From the collection process that has been carried out, there were 180 literatures obtained regarding work motivation and job satisfaction. Furthermore, the researchers focused on the types of correlation/relationship literatures only, so that as many as 30 journals were obtained. Then the researchers do reselection of the literatures and obtain results as many as 27 literatures that will be used for research.

This study was conducted using a total of 27 literatures, with a total of 4033 respondents. The literature used as research data were obtained from various countries in Asia and America by the websites such as Emerald, ScienceDirect, Elsevier, Google Scholar, SINTA, and Garuda. The number of samples varies from 31 to 1260. The results of the search for the correlation coefficient, the number of samples, and the literature data that have been used can be seen in Table 1.

Table 1 The Details of Literature

Researcher (Year)	Research Title	n	r	Fisher's z transformed correlation, 95%-CI
Aini, M. N. (2014)	Hubungan Motivasi Kerja Dengan Kepuasan Kerja Karyawan PT. Sampoerna Printpack, Cakung, Jakarta Timur	129	.85	1.26 [1.08; 1.43]
Ayub, N. & Rafif, S. (2020)	The Relationship Between Work Motivation and Job Satisfaction	80	.563	.64 [.41; .86]
Bahri, S., & Nisa, Y. C. (2017)	Pengaruh Pengembangan Karir Dan Motivasi Kerja	31	.143	.14 [-.23; .51]



	Terhadap Kepuasan Kerja Karyawan			
Fikri, M. K., Rizany, I., & Setiawan, H. (2022)	Hubungan Motivasi Kerja dengan Kepuasan Kerja Perawat pada Masa Pandemi COVID-19 di Rawat Inap	144	.57	.65 [.48; .81]
Hardiyana, A., & Nurhadian, A. F. (2016)	Pengaruh Kompensasi dan Motivasi Kerja Terhadap Kepuasan Kerja Serta Implikasinya Pada Kinerja Kerja Karyawan	107	.09	.09 [−.10; .28]
Kornelius, Y. (2022)	Hubungan Motivasi dengan Kepuasan Kerja Pegawai	69	.3	.31 [.07; .55]
Kurnia, A. M., Sunuharyo, B. S. & Utami, H. N. (2013)	Pengaruh Motivasi Kerja Terhadap Kepuasan Kerja dan Prestasi Kerja Karyawan (Studi Pada Karyawan PT. Askes (Persero), Cabang Boyolali)	34	.734	.94 [.59; 1.29]
Maharjan, S. (2012)	Association between Work Motivation and Job Satisfaction of College Teacher	112	.733	.94 [.75; 1.12]
Maindoka, P., Tewal, B., & Rumokoy, F. S. (2017)	Pengaruh Komitmen Organisasi, Motivasi Kerja, dan Kompensasi Terhadap Kepuasan Kerja Pada Dinas Penanaman Modal dan Pelayanan Terpadu Satu Pintu Provinsi Sulawesi Utara	63	.33	.34 [.09; .60]
Mamah, A. A., & Ogbu, C. G. (2015)	Empirical Analysis of the Relationship between Motivation and Job Satisfaction: A Study of Ifesinachi Industries Nigeria Limited	68	.63	.74 [.50; .98]
Mashaqbah, N. K (2018)	The Relationship Between Motivation and Job Satisfaction Among Teachers of Public Schools in Mafrag Province of Jordan	1260	.11	.11 [.06; .17]

Muspawi, M. & Mudlikawati, R. (2019)	The Correlation Between Work Environment and Work Motivation with Job Satisfaction	40	.576	.66 [.33; .98]
Nasution, A. N. (2021)	Hubungan Motivasi Kerja Dengan Kepuasan Kerja Karyawan Pada Fave Hotel Padjajaran Bogor	66	.619	.72 [.48; .97]
Nugroho, G. D. (2012)	Hubungan Antara Kepuasan Kerja Dengan Motivasi Kerja Karyawan PT Busana Mulya Tekstil	50	.512	.57 [.28; .85]
Ose, J. I., Aregbesola, A., Owolabu, S. E., & Eyiolorunshe, T. (2019)	Relationship Between Motivation and Job Satisfaction of Staff In Private University Libraries, Nigeria	361	.036	.04 [−.07; .14]
Pancasila, I., Haryono, S., & Sulisty, B. A. (2020)	Effects of Work Motivation and Leadership toward Work Satisfaction and Employee Performance: Evidence from Indonesia	355	.171	.17 [.07; .28]
Putra, I. P. (2017)	Pengaruh Gaya Kepemimpinan Situasional dan Motivasi Kerja Terhadap Kepuasan Kerja Karyawan (Studi Pada Alpha Hotel Pekanbaru)	56	.743	.96 [.69; 1.23]
Rahayu, N., & Aprianti, K. (2020)	Pengaruh Motivasi Kerja Terhadap Kepuasan Kerja Karyawan Pada PT. Perum Pegadaian Salama Cabang Bima	36	.848	1.25 [.91; 1.59]
Sapitri, P., Hayati, Y. H., & Yusnita, N. (2017)	Hubungan Motivasi Kerja Dengan Kepuasan Kerja Karyawan Pada Divisi Produksi Plant 7/8 PT Indocement Tungal Prakarsa Tbk	68	.282	.29 [.05; .53]
Stankovska, G., Angelkoska, S., Osmani, F., &	Job Motivation and Job Satisfaction among	100	.544	.61 [.41; .81]



Grncarovska, S. P. (2017)	Academic Staff in Higher Education			
Sumartyawati, N. M., Ardani, M. H., & Dharmana, E. (2017)	Hubungan Motivasi Dengan Kepuasan Kerja Perawat di Ruang Rawat Inap RSJ Provinsi NTB	65	.734	.94 [.69; 1.19]
Tawan, A., Nazarudin, M. N., Noordin, Z., Tu, M. M., & Watinin, N. (2020)	Hubungan Motivasi, Kecerdasan Emosi dan Efikasi dengan Kepuasan Kerja Guru di Sekolah Rendah	297	.751	.98 [.86; 1.09]
Tentama, F., Subardjo, & Dewi, L. (2020)	The Correlation Between Work Motivation and Job Satisfaction of The Academic Staffs	40	.689	.85 [.52; 1.17]
Utami, Y. A., Tampubolon, R. & Indrawati, N. S. (2020)	Hubungan Motivasi Kerja Dengan Kepuasan Kerja Karyawan Bagian Produksi Pada PT. Kenlee Indonesia	107	.44	.47 [.28; .66]
Wae-esor, E., Abu Bakar, A. B., & Hee, H. C. (2016)	The Relationship Between Work Motivation and Job Satisfaction of Muslim Public Health Employees In Pattani Province, Thailand	242	.382	.40 [.28; .53]
Yakup, Y. (2017)	Pengaruh Keterlibatan Kerja, Budaya Organisasi dan Motivasi Kerja Terhadap Kepuasan Kerja Pegawai	53	.3	.31 [.03; .59]
Zaenudin, M. R., Danial, R. D. M., & Alamsyah, S. (2021)	Hubungan Kepemimpinan, Lingkungan Organisasi, dan Motivasi dengan Kepuasan Kerja	82	.36	.38 [.16; .60]

Calculation of Effect Size (z)

In the correlation meta-analysis, the value of r must be transformed into the Fisher transform (z) (Table 1). This is necessary because the distribution of sample z around the population is symmetrical compared to the distribution of sample r around the population which is skewed on average in several small sample sizes.

Heterogeneity Test

The heterogeneity test aims to ensure that the research data really fit into the random effects model. The heterogeneity test was carried out using the Higgins' I^2 parameter because the I^2 value was considered to be insensitive to the effect size metric and not sensitive to the amount of literature used in the study. Based on statistical calculations, the value of $I^2 = 95\%$ ($I^2\text{-value} > 75\%$), thus applies the random effects model in this study (Table 2). It means that the true effect between studies is different.

Calculation of Summary Effect Size (r)

To determine the effect size that occurs between the two variables, it can be seen in the value of r . In the correlation meta-analysis, the effect size with $r > .3$ means it has a small effect size, $.3 < r < .5$ means it has a medium effects size, and $r > .5$ means it has a large effect size. Based on the calculation, the value of r in the random effect model is .519 ($r > .5$), which means that the correlation between work motivation and job satisfaction has a large effect size (Table 2).

Table 2 Result of Heterogeneity Test and Summary Effect Size Calculation

Model	z	r	95%-CI	sig.	Heterogeneity
Fixed Effect	.391	.372	[.360; .422]	.001	$I^2 = 95\%$; $Chi^2 = 515.46$; $df = 26$
Random Effect	.576	.519	[.437; .715]	.001	$I^2 = 95\%$; $Tau^2 = .111$

Publication Bias Test

Publication bias is the possibility of finding studies with insignificant results that are hidden or not published. In the meta-analysis, it is very important to know the indications of publication bias so that the resulting analysis is more balanced. The publication bias test in this study was carried out by detecting the file-drawer effect using the Rosenthal Fail-Safe Number method ($F\text{-s } N > 5K+10$). Based on the calculations, it is known that the Rosenthal Fail-safe N value is 7739 ($7739 > 5*27+10$), meaning that it takes 7739 unpublished studies with insignificant results to make this study has no effect (Table 3). Thus, this research is free from publication bias and the results are ensured to be balanced according to the conditions in the field.

Table 3 Result of Publication Bias Test

Model	Fail-safe N	Target Sig. Level	Observed Sig. Level
Rosenthal	7739	.05	< .0001

The results of a meta-analysis of 27 literatures show that the relationship between work motivation and job satisfaction has a significance value of .001 ($p\text{-value} < .05$), it means that work motivation is significantly correlated with job satisfaction. Work motivation is something that triggers the desires of employees to do work in order to achieve performance targets. The high motivation felt by employees will increase their job satisfaction (Juniari,



Riana, & Subudi, 2015). When job satisfaction is increased, employee work motivation will increase further (Adely, 2017). Thus, work motivation is related to job satisfaction.

The results also show that the relationship between work motivation and job satisfaction has a large effect size, it means that work motivation and job satisfaction have a strong relationship. The large effect size that occurs between work motivation and job satisfaction is probably because the measuring instrument in each study was designed independently by the researcher and has been adjusted to the condition of the population, so that it can increase the validity and reliability of the measuring instrument. The reliability of the measuring instrument affects the effect size in a study (Widhiarso, 2017).

This meta-analysis study can strengthen the existing theory that work motivation and job satisfaction are correlated because the results are free from publication bias. Publication bias is the tendency of researchers to publish significant research results and hide insignificant research results (Fragkos, Tsagris, & Frangos, 2014). In this study, there is no indication of hidden insignificant research results. If anything is hidden, 7739 literatures with insignificant results are needed to make the relationship between work motivation and job satisfaction have no effect.

CONCLUSION

As a result of the meta-analysis study in order to analyze the relationship between work motivation and job satisfaction, it can be concluded that work motivation is significantly correlated with job satisfaction. Work motivation has a large effect size on job satisfaction so that the relationship between the two is direct and strong. Every employee certainly has a desire to achieve work targets. Achieving work targets will lead to feelings of satisfaction. Perceived satisfaction with targets that have been achieved will lead to motivation.

This study only focuses on analyzing how strong the relationship between work motivation and job satisfaction is without dissecting what aspects or dimensions exist in each of the interrelated variables more specifically. So, the next studies are suggested to identify aspects or dimensions in each variable so that it is clearer where the relationship between the two is located. Also, future studies are expected to analyze the relationship between work motivation and job satisfaction in other populations that may have moderated or mediating variables.

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DOI: <https://doi.org/10.54443/sj.v2i3.175>

