



## A Meta-Analysis Study of the Relationship between Commitment and Job Performance

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### **Abstract**

Knowing the factors affecting job performance is always one of the concerns of organizations. Job performance as the overall value expected in any organization is considered as an indicator to determine the level of efficiency and productivity of that organization. One of the motivational and psychological issues needed to continue employment and improve job performance in an organization is organizational commitment. This research determines the relationship between organizational commitment and job performance. In this systematic review (meta-analysis), articles related to job performance and commitment from 2012 to 2019 have been used in 4 information databases, Scopus, Science Direct, ASCE, Magiran, in both English and Farsi languages. After searching, a number of 494 articles on the subject under study were examined, and 112 articles were selected for meta-analysis through a specific protocol. The collected data were analyzed using Comprehensive Meta-Analysis software (CMA). Data analysis based on the random effects model shows that job performance has a significant relationship with commitment with a correlation effect size of 0.335. According to the results of the analysis, the biases of selection, publication, language, citation and homogeneity tests were investigated. The presence of the moderator variable was investigated and the countries of the European continent were identified as the moderator variable.

**Keywords:** *Meta-Analysis; Meta-Analysis; Job Commitment; Job Performance*

### **1. Introduction**

According to the statistics of the Gallup Institute, about 87% of the world's employees are not emotionally committed to their jobs [1]. Managers of organizations have well understood that the most important factor in gaining competitive advantage is their human resources [4]. Improving job

performance leads to the realization of organizational goals, which leads to results such as increasing long-term profitability, growth rate and income, and improving service and product quality [1]. Organizational commitment can be considered as a positive emotional response from the work environment. This emotional response may be in the form of attachment. Especially when people strongly believe in the values and goals of the organization or have a strong desire to maintain their membership in the organization [3]. In the last decade, employees' organizational commitment and its impact on job performance have been the subject of. Despite the fact that some researches have stated the positive impact of commitment on job performance [5], some researches also show their lack of impact and significance [6]. A number of studies point to a strong positive relationship between commitment and job performance. Jamshid Khalid et al. (2018) in their research by examining the effect of organizational commitment on job performance in a pharmaceutical organization reached the conclusion that commitment has a strong and positive effect on job performance with a correlation coefficient of 0.644 [7]. Hailin Lina Kim and colleagues (2017) also found a strong and positive correlation coefficient of 0.603 by examining the effect of commitment on the job performance of hotel employees [8]. many researches in the field of management and behavioral sciences.

Despite the fact that some researches have stated the positive impact of commitment on job performance [5], some researches also show their lack of impact and significance [6]. A number of studies point to a strong positive relationship between commitment and job performance. Jamshid Khalid et al. (2018) in their research by examining the effect of organizational commitment on job performance in a pharmaceutical organization reached the conclusion that commitment has a strong and positive effect on job performance with a correlation coefficient of 0.644 [7]. Hailin Lina Kim and colleagues (2017) also found a strong and positive correlation coefficient of 0.603 by examining the effect of commitment on the job performance of hotel employees [8].

Some researchers in their studies pointed to a significant and moderate relationship between the two. Whitney-Berta et al. (2018) in their study on healthcare workers found a positive relationship between these two variables with a moderate and acceptable impact factor of 0.49 [9]. Sergio Andres (2018) in examining these two variables reached a positive and moderate relationship with an impact factor of 0.403. Also, some studies report a weak relationship between these two variables [10]. Melody Chang (2019) in her study by examining the effect of these two variables reached the conclusion that commitment has a positive and weak effect on job performance with a correlation coefficient of 0.244 [11]. In spite of the previous results that stated the positive effect of commitment with different and significant intensities on job performance, research also points to the absence of significance. Therefore, with the existence of conflicting relationships between commitment and job performance, it is considered necessary for the researcher to reach a single result by combining the data of quantitative articles. The purpose of this study (protocol) is to examine the results published in the period between 2012 and 2019 in the field of the relationship between commitment and job performance, which reaches a specific result derived from statistical analysis using the meta-analysis method. This article is divided into four parts. The second part describes the concepts of meta-analysis and how to conduct the search. In the third part, search results, analysis, heterogeneity, bias and sensitivity analysis are discussed and the final part deals with discussion and conclusions.

## **2- Research Method**

### **2- 1- How to Search**

The conducted meta-analysis has discussed the relationship between commitment and job performance in a quantitative way. This search is limited to 2012 to 2019. English articles were searched in 3 databases Scopus, Science Direct and ASCE. Keywords Commitment , Affective Commitment , Obligation , Job Performance , Job function, Job Efficiency , Career Performance , Career Function , Career

Efficiency, 'Work Performance', Work Function, Work Efficiency in 27 possible state combinations were searched in the introduction, abstract and title sections. Persian articles were searched in Magiran database. The keywords "commitment" and "job performance" were searched in the article. Using a specific protocol, the obtained articles were refined step by step with the aim of reaching relevant and appropriate articles. The process of refining the articles was as follows:

- 1- Removing duplicate articles
- 2- Removing inaccessible articles
- 3- Removal of qualitative articles
- 4- Removing irrelevant articles
- 5- Removing articles with wrong tests
- 6- Removal of articles due to lack of validity and reliability

After searching the desired keywords in the databases, a total of 739 articles were obtained. According to the steps of the protocol, 194 duplicate articles were removed at first, and in the next step of the protocol, 53 articles that could not be accessed were discarded.

Because the purpose of this research is the statistical analysis of articles, in the next step, 78 qualitative articles and articles without statistical data were excluded. In the next step, the articles were reviewed in terms of relevance to the purpose of the study and 271 articles were excluded from the review process due to unrelated reasons. Then the validity and reliability of the remaining articles were examined and 26 articles were excluded due to lack of validity and reliability. Finally, the statistical tests of the articles were evaluated and 15 articles with wrong tests were removed. Finally, the study was completed with 112 remaining articles. The mentioned process can be seen in Figure 1.

## 2-2- Meta analysis

Meta-analysis tries to remove the influence of chance, error and exploitation and combine and analyze the results of independent studies that all pursue the same goal. [12], [13]. This work is done using the effect size calculation technique. In this order, the statistical tests used in the hypotheses are analyzed after being converted into the effect size. In a comprehensive statistical definition, the effect size is the ratio of the significance test to the study volume [14], [15].

To perform meta-analysis, there are two accepted and common models: the fixed effects model and the random effects model, the first of which estimates only the variance within a study and the second, in addition to the variance within a study, also estimates the variance between studies [16], [17]. The random effects model is a way to consider the heterogeneity between effect sizes. [18] The results obtained after the analysis by the software are described in the next section.

Table 1. details of the studies

	Author	year,	size	lower	z-value	p-value	
1	masoudi[19]	2012	0/158	0/014	0/295	2/155	0/031
2	mohammad ali nemati[20]	2017	0/631	0/519	0/721	8/689	0/000
3	nasrin arshadi[21]	2012	0/250	0/140	0/354	4/357	0/000
4	rasoul faraji[22]	2016	0/388	0/215	0/538	4/196	0/000
5	bahman asgari[23]	2014	0/670	0/586	0/739	11/466	0/000
6	[24] catherine prentice1	2019	0/328	0/253	0/399	8/153	0/000

7	2[24]catherine prentice	2019	0/166	0/085	0/244	4/011	0/000
8	1[4]hamed derakhshideh	2014	0/440	0/332	0/537	7/255	0/000
9	2[4]hamed derakhshideh	2014	0/330	0/212	0/439	5/267	0/000
10	3[4]hamed derakhshideh	2014	0/19	0/065	0/309	2/955	0/003
11	najmeh hamid[25]	2012	0/68	0/597	0/749	11/518	0/000
12	melina seedoyal doargaiudhur[26]	2019	0/681	0/625	0/730	16/557	0/000
13	javad pourkarimi[1]	2018	0/640	0/545	0/719	10/087	0/000
14	salehe piriayi[27]	2014	0/160	0/055	0/262	2/963	0/003
15	1[28]ali yasini	2013	0/400	0/272	0/514	5/731	0/000
16	2[28]ali yasini	2013	0/400	0/272	0/514	5/731	0/000
17	3[28]ali yasini	2013	0/31	0/174	0/434	4/336	0/000
18	4[28]ali yasini	2013	0/55	0/441	0/643	8/365	0/000
19	saeid karimi[3]	2018	0/36	0/246	0/464	5/887	0/000
20	negin sangari[29]	2013	0/3	0/174	0/417	4/528	0/000
21	leticia gomesmaia[30]	2019	0/34	0/212	0/457	4/995	0/000
22	shanshan qian[31]	2019	0/47	0/411	0/525	13/706	0/000
23	bonhak koo[32]	2019	0/396	0/297	0/486	7/304	0/000
24	N.kaabamir[33]	2016	0/170	0/032	0/301	2/416	0/016
25	melody P.M.chong[11]	2019	0/244	0/183	0/304	7/582	0/000
26	khoa T.tran[34]	2018	0/259	0/151	0/361	4/591	0/000
27	xiao song lin[35]	2018	0/150	0/002	0/291	1/899	0/047
28	Xiao Song Lin[36]	2016	0/300	0/186	0/406	5/010	0/000
29	jiyoung park[37]	2018	0/150	0/034	0/262	2/534	0/011
30	amy wei tian[38]	2018	0/330	0/164	0/478	3/787	0/000
31	sergio andres[10]	2018	0/403	0/317	0/482	8/512	0/000
32	M.sait dinc[39]	2018	0/410	0/306	0/504	7/171	0/000
33	whitney berta[9]	2018	0/490	0/417	0/556	11/460	0/000
34	minsu lee[40]	2018	0/170	0/033	0/300	2/434	0/015
35	1mohammad Aamir shafique[41]	2018	0/420	0/324	0/507	7/870	0/000
36	1mohammad Aamir shafique[41]	2012	0/420	0/324	0/507	7/870	0/000

37	3mohammad Aamir shafique[41]	2018	0/590	0/513	0/658	11/912	0/000
38	jamshid khalid[7]	2018	0/644	0/562	0/713	11/652	0/000
39	A K M talukder[42]	2018	0/365	0/263	0/459	6/650	0/000
40	1imran bukhari[43]	2017	0/350	0/266	0/429	7/726	0/000
41	2imran bukhari[43]	2017	0/200	0/110	0/287	4/286	0/000
42	tae yeol kim[44]	2015	0/230	0/149	0/308	5/457	0/000
43	hyelin lina kim[8]	2017	0/603	0/540	0/659	14/622	0/000
44	john M.schaubroeck[45]	2017	0/230	0/095	0/357	3/304	0/001
45	hyung ryong lee[46]	2017	0/164	0/058	0/266	3/015	0/003
46	abdelaziz swalhi[47]	2017	0/320	0/222	0/412	6/115	0/000
47	Li Hui[48]	2017	0/130	0/032	0/225	2/602	0/009
48	fang liu[49]	2017	0/410	0/273	0/531	5/493	0/000
49	1[5]yanhan zhu	2016	0/510	0/433	0/580	11/099	0/000
50	2[5]yanhan zhu	2016	0/801	0/762	0/834	21/723	0/000
51	ching yuan huang[50]	2016	0/440	0/332	0/537	7/255	0/000
52	jui chang cheng[51]	2016	0/450	0/363	0/529	9/094	0/000
53	jyoti sharma[52]	2016	0/700	0/642	0/750	16/133	0/000
54	santiago melian gonzalez[53]	2016	0/170	-0/023	0/351	1/725	0/084
55	1[54]ronald j.burke	2015	0/140	0/009	0/266	2/090	0/037
56	2[54]ronald j.burke	2015	0/170	0/029	0/304	2/366	0/018
57	ramin ravangard[55]	2015	0/260	0/166	0/349	5/302	0/000
58	patrick mussel[56]	2015	0/050	-0/095	0/193	0/675	0/500
59	inyong shin[57]	2015	0/270	0/095	0/429	2/982	0/003
60	chang qin lu[58]	2015	0/070	0/009	0/130	2/249	0/025
61	pen yuan liao[59]	2015	0/110	-0/045	0/260	1/388	0/165
62	xiaoming zheng[60]	2015	0/200	0/084	0/311	3/356	0/001
63	1[61]kuo tai cheng	2015	0/370	0/319	0/418	13/263	0/000
64	2[61]kuo tai cheng	2015	0/360	0/307	0/411	12/311	0/000
65	amy Y.ou[62]	2014	0/120	0/043	0/195	3/055	0/002
66	hong deng[63]	2014	0/040	-0/083	0/162	0/637	0/524

67	1[64]jens rowold	2014	0/140	0/067	0/211	3/755	0/000
68	2[64]jens rowold	2014	0/370	0/321	0/417	13/760	0/000
69	1[65]long W lam	2014	0/350	0/270	0/425	8/114	0/000
70	2[65]long W lam	2014	0/260	0/176	0/340	5/909	0/000
71	3[65]long W lam	2014	0/210	0/124	0/293	4/733	0/000
72	hannah B spell[66]	2014	0/060	-0/043	0/162	1/137	0/256
73	yan liu[65]	2014	0/120	-0/037	0/271	1/501	0/133
74	joon hee oh[67]	2014	0/323	0/197	0/438	4/866	0/000
75	ann yan zhang[68]	2014	0/100	0/015	0/183	2/314	0/021
76	parlos A.[69]	2014	0/380	0/297	0/457	8/344	0/000
77	N.sharonhill[70]	2014	0/900	0/878	0/918	27/543	0/000
78	sewon kim[71]	2014	0/400	0/286	0/502	6/439	0/000
79	1[72]kim J.P.M van Erp	2014	0/200	0/002	0/383	1/976	0/048
80	2[72]kim J.P.M van Erp	2014	-0/100	-0/382	0/199	-0/650	0/516
81	1[73]silvia dello russo	2013	0/200	0/144	0/254	6/929	0/000
82	2[73]silvia dello russo	2013	-0/240	-0/293	-0/185	-8/365	0/000
83	1[74]sewon kim	2013	0/320	0/237	0/398	7/258	0/000
84	2[74]sewon kim	2013	0/260	0/175	0/341	5/824	0/000
85	1[75]alexander E.Ellinger	2013	0/550	0/478	0/614	12/429	0/000
86	2[75]alexander E.Ellinger	2013	0/720	0/670	0/764	18/243	0/000
87	chun chieh ma[76]	2013	0/690	0/638	0/735	17/948	0/000
88	1[77]zeynep Y.yalabik	2013	0/210	0/060	0/351	2/730	0/006
89	2[77]zeynep Y.yalabik	2013	0/070	-0/083	0/220	0/898	0/369
90	3[77]zeynep Y.yalabik	2013	0/120	-0/032	0/267	1/544	0/123
91	4[77]zeynep Y.yalabik	2013	0/160	0/008	0/304	2/067	0/039
92	5[78]sophie hennekam	2013	0/260	0/168	0/348	5/395	0/000
93	6[78]sophie hennekam	2013	0/010	-0/086	0/106	0/203	0/839
94	7[78]sophie hennekam	2013	0/100	0/004	0/195	2/034	0/042
95	weichun zhu[79]	2013	0/080	-0/030	0/188	1/423	0/155
96	louise tourigny[80]	2013	0/200	0/062	0/331	2/824	0/005

97	tanya gibbs nicholas[81]	2013	0/020	-0/110	0/149	0/301	0/763
98	dorien T.A.M kooij[82]	2013	0/170	0/146	0/194	13/730	0/000
99	1[83]alan G.walker	2013	0/140	0/007	0/268	2/057	0/040
100	2[83]alan G.walker	2013	-0/200	-0/325	-0/068	-2/959	0/003
101	3[83]alan G.walker	2013	0/200	0/068	0/325	2/959	0/003
102	[84] shilpa jain surana	2012	0/230	0/120	0/334	4/056	0/000
103	qing miao[85]	2012	0/072	-0/038	0/180	1/288	0/198
104	jiajin tong[86]	2012	0/100	-0/009	0/207	1/795	0/073
105	marijn poortvliet[87]	2012	0/380	0/269	0/481	6/325	0/000
106	zhen zhang[88]	2012	0/340	0/197	0/468	4/507	0/000
107	panja andressen[89]	2012	-0/200	-0/271	-0/127	-5/279	0/000
108	amanda M.conklin[90]	2012	0/380	0/255	0/493	5/615	0/000
109	qianling[91]	2017	0/100	0/042	0/157	3/371	0/001
110	Yasin rofcanin[92]	2016	0/650	0/580	0/711	13/406	0/000
111	yousef ramezani[93]	2018	0/892	0/842	0/927	13/797	0/000
112	mohsen akbari[94]	2015	0/250	0/098	0/390	3/196	0/001
113	pei-ling-tsui[95]	2013	0/496	0/369	0/605	6/814	0/000
114	pi-chuansun <sup>1</sup> [96]	2015	0/085	-0/110	0/273	0/855	0/393
115	pi-chuansun <sup>2</sup> [96]	2015	0/084	-0/100	0/262	0/895	0/371
116	ned kock murad[97]	2016	0/309	0/169	0/436	4/221	0/000
117	anis eliyana[6]	2019	-0/440	-0/691	-0/095	-2/454	0/014
118	asbah shujaat[98]	2019	0/207	0/092	0/317	3/486	0/000
119	majid haji zاده1[99]	2018	0/919	0/887	0/942	18/013	0/000
120	majid haji zاده2[99]	2018	0/470	0/326	0/593	5/822	0/000
121	ali shayan[100]	2017	0/131	0/001	0/257	1/972	0/049
122	ned kock[101]	2019	0/340	0/203	0/464	4/684	0/000
123	reza andam[102]	2016	0/280	0/138	0/411	3/795	0/000
124	morteza raie[103]	2018	0/273	0/154	0/384	4/383	0/000
125	seyed ahmad hashemi3[104]	2015	0/270	0/068	0/451	2/597	0/009
126	seyed ahmad hashemi3[104]	2015	0/280	0/079	0/459	2/699	0/007

127	selma kalkavan[105]	2014	0/226	0/099	0/346	4/457	0/001
128	N.gokhan torlak1[106]	2018	0/532	0/461	0/596	12/395	0/000
129	N.gokhan torlak2[106]	2018	0/600	0/537	0/657	14/490	0/000
130	N.gokhan torlak3[106]	2018	0/473	0/397	0/542	10/743	0/000
131	siswoyo haryono[107]	2017	0/351	0/236	0/456	5/700	0/000
132	suharto[108]	2019	0/216	0/114	0/314	4/091	0/000
133	seyed ehsan hoseini1[109]	2018	0/854	0/728	0/924	7/188	0/000
134	seyed ehsan hoseini2[109]	2018	0/713	0/645	0/770	13/752	0/000
135	vincent chong maggie[110]	2016	0/199	0/003	0/380	1/985	0/047
<b>random</b>			<b>0/335</b>	<b>0/294</b>	<b>0/376</b>	<b>14/710</b>	<b>0/000</b>

### 3- Meta-Analysis Results

#### 3-1 Articles Search Results

In the refining process, out of 739 articles obtained from the database, 112 articles with 135 independent data were selected and analyzed in CMA software.

#### 3-2 Results of Data Analysis

Data was obtained by analyzing selected articles. The results of random effects and fixed effects models show that there is a significant relationship between commitment and job performance.

Table 2. Statistics of the studies

	Number of studies	Composition model	effect size (r)	minimum	too much	Z-value	P-value
The relationship between commitment and job performance	135	Fixed	0/297	0/289	0/305	926.68	0/000
		random	0/335	0/294	0/376	14/710	.000

#### 3-2-1 Heterogeneity Test

According to table number 3, the value of Q shows the heterogeneity of the data. ( $Q=3664.974$ ), the  $i^2$  coefficient indicates that 96.344% of the changes in the total studies are related to the heterogeneity of the studies. As a result, due to the randomness of the data, the random effects model should be used in this meta-analysis. These results show that the relationship between commitment and job performance is different in terms of study characteristics. The accumulation diagram of the stochastic model is shown in Figure 2.



Table 3. Results of heterogeneity tes

Statistical index	Q-value	Df(Q)	P-value	I-squared	Tau Squared	Standard Error
Results	3664/974	134	0/000	96/344	0/071	0/015

### 3-2-2 Examining the Assumption of Bias

Various biases can be imagined for meta-analysis, each of which can influence the meta-analysis results. In this study, language, selection, citation and publication biases have been investigated.

#### - Linguistic bias

Articles in both Farsi and English languages have been searched in this article for language bias.

#### -Selection bias

### 3-2-3- Publication Bias

In order to check the publication bias in this study, funnel plot method, Egger regression method, Bagg and Mesodar rank correlation method, and safe N method were used. The results of the above methods are presented in order.

#### 3-2-3-1 Funnel Chart

The most common way to identify publication bias is to use a funnel plot. If there is no diffusion bias, the graph is expected to be symmetrical. As shown in Figure No. 3 in the above study, the funnel is relatively symmetrical and there is little diffusion bias.

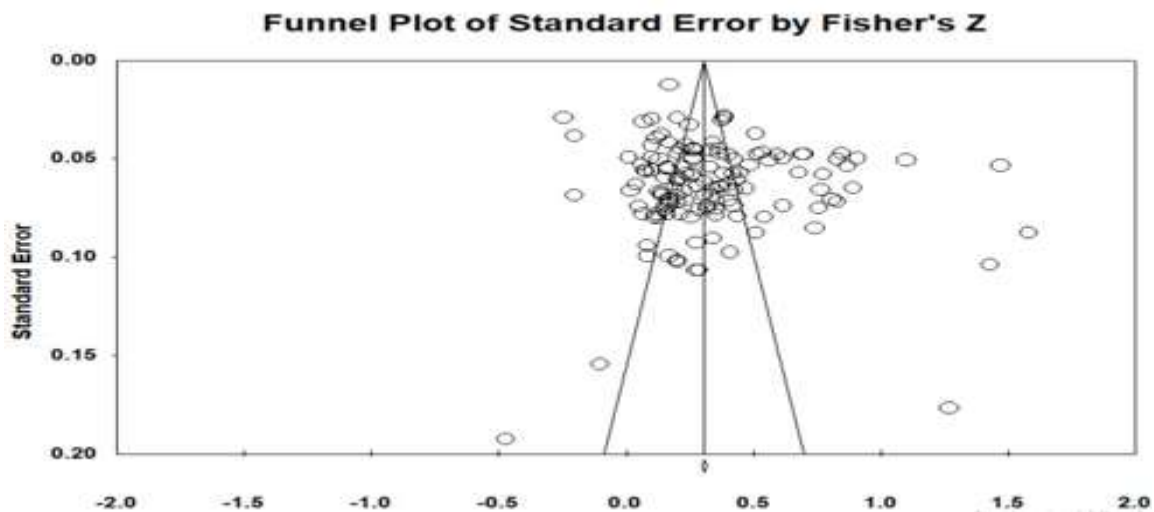


Figure 3: Funnel diagram of meta-analysis results

#### 3-2-3-2 Egger's Linear Regression Method

Another method of checking publication bias is Egger's test. The results of this test include a range that the higher the cutoff, the smaller the number of research data. Egger's regression results show that the cutoff is 3.14576 and the P-value for one domain is 0.00197 and the P-value for two domains is

0.00394. The results of this test according to Table No. 4 show that both P values (one domain and two domains) obtained from the results are not greater than 0.05 and this study has a publication bias.

Table 4. The results of checking Egger's regression method

P-value		T-value	95% of the upper limit	95% lower limit	standard error	cutting
A domain	A domain		Two domains	Two domains		
0/00394	0/00197	2/93394	5/26651	1/025	1/07219	3/14576

### 3-2-3-3 Arrangement and Finishing Method (Double and Tweed)

The Duval and Tweedy correction method is a method used to adjust for publication bias. This method uses an iterative process in which inconsistent observations are removed from the funnel plot and values assigned to missing studies are added. In other words, it fills in the estimate of the effect size and the standard error of the studies that are probably missing. According to this analysis, another 30 articles should be added to the studies from the right side in order to create complete symmetry between the data and to neutralize the publication bias. The results of the modification of the fit based on the random effects model are shown in Table 5.

Table 5. Results of Doval and Tweedy fit modification for random effects model

Number of studies required	quantity	upper line	lower limit	Point estimate	Value	The sides of the middle line of the funnel plot
0	3664/9736	0/37598	/29350	0/33538	The value of observations	Left side of the middle line
	3664/9736	0/37598	/29350	0/33538	Corrected value	
30	3664/9736	0/37598	/29350	0/33538	The value of observations	Right side of the middle line
	6419/6240	0/45078	0/36741	0/40995	Corrected value	

### 3-2-3-4 N Error Safe Method

The fail-safe N test indicates the number of missing studies with a mean effect of zero (ie, studies reporting the null hypothesis) that would render the analysis statistically insignificant if added to the analysis. According to table number 6, 7238 more studies need to be added to the studies to change the results from significant to non-significant.

Table 6 - The results of the fail-safe N test

Indicator	The Amount of
Z value for observed studies	69/01182
Z value for observed studies	0/00000
Alpha	0/05000
sequence (remaining)	2
Z for alpha	1/95996
Number of studies viewed	135
The number of missing studies that would raise the P value to alpha	7238

### 3-2-3- Data Sensitivity Analysis

Sensitivity analysis is a method to measure the effect of changes in different sources on the outputs. That is, how much the uncertainty in each study affects the meta-analysis results. Comparing the results of meta-analysis with sensitivity analysis in Figure 4 shows that removing any study does not change the average effect size from significant to non-significant, so this conclusion will be suitable for meta-analysis because it ensures the obtained effect size. It is meta-analyzed and emphasizes the almost equal importance of studies.

### 3-2-4 Identifying the Modulating Variable

Examining the existence of the moderator variable is considered as one of the findings of the study analysis. In the current study, the search for the moderator variable was done with the approach of examining different countries, and the necessary tests for this examination were used in the software. 23 countries Australia, Brazil, Canada, Chile, China, Pakistan, Denmark, France, Germany, India, Indonesia, Iran, Italy, Netherlands, Russia, South Korea, Italy, Taiwan, Turkey, England, America, Bosnia and Herzegovina and Vietnam Were examined. Using the random effects model, the moderating variable was investigated in the four categories of the continents of Europe, Asia, America, Oceania and Australia. According to the results, the European continent was identified as a moderating variable. The effect size of the random model, when the countries of the European continent are considered, is equal to 0.164 and for other countries except the countries of the European continent, it is 0.369. The effect size obtained for other continents is 2.25 times larger than the effect size obtained from the European continent. The results can be seen in table number 7.

Table 7. Moderator analysis results with random effects model

Model	Place of execution Research	Point estimate	lower limit	upper line	Z-Value	P-Value
<b>Random effects</b>	Europe continent	0/164	0/087	0/239	4/164	0/000
<b>Random effects</b>	Other continents	0/369	0/322	0/413	14/436	0/000

The analysis of the obtained results states that there is a low and significant relationship between commitment and job performance in European countries, the reported p-value is less than 0.05, and according to this conclusion, the relationship in other continents is reported to be moderate.

## **Discussion**

The present meta-analysis study is by examining the quantitative analysis of the results of studies on the relationship between commitment and job performance. In this study, we tried to find a single answer for the relationship between these two variables by combining the results of the studies using the meta-analysis systematic review method. As a result of the search process, 739 articles with two search languages, English and Farsi, were found in four databases in the period from 2012 to 2019. Then the articles were refined using a single protocol and based on specific criteria, and finally 112 articles were selected for analysis in the comprehensive CMA meta-analysis software. By analyzing the data by the software, the heterogeneity of the data was detected and the random effects model was used to analyze the data.

The result obtained from the meta-analysis showed the effect size of the relationship between commitment and job performance to be 0.335, which according to Cohen's criterion, the effect size obtained is moderate and significant. Saeed Karimi[3] showed the relationship between commitment and job performance with an effect size of 0.36. Letisa Gomzamiya [30] and John Hay Oh[67] also expressed this relationship with correlation coefficients of 0.34 and 0.323, which all these studies show the same direction with the result of meta-analysis.

The selected articles in this meta-analysis were confirmed in terms of language, selection and citation biases. The publication bias was investigated using the funnel diagram, Egger regression method, and the arrangement and completion method, and it was found that by adding 30 articles from the right side to the publication bias studies, it became ineffective. The safe N test showed that 7238 studies should be added to the unpublished studies in order to change the results of the meta-analysis. Also, the sensitivity analysis test showed that there is no study that si The identification of the moderating variable was investigated with the approach of the countries where the studies were conducted, and the countries of the European continent were identified as the moderating variable. The effect size in the case of the random model for studies published in continental European countries is equal to 0.164 and for other countries it is equal to 0.369. The analysis of the moderator variable in the European continent showed a significant and low relationship between commitment and job performance, while the results of the obtained effect size showed a moderate relationship regardless of the location of the studies.

## **Significantly Affects the Results of the Meta-Analysis**

The relationship between factors affecting job performance is a complex and interactive relationship, and organizational commitment is one of the factors affecting it. Among other factors, talent, knowledge and skill, opportunity, resources and facilities and equipment, motivation and purpose can also be mentioned. Managers of organizations should look for the talent of employees and assign tasks and job roles to employees with maximum suitability. Employees need enough opportunity to show their talents and abilities and effectively use their kn Also, effective practical use of talent, knowledge and skills of employees requires factors such as discretion in their job performance. Resources, equipment and information tools can also facilitate their desired performance if they are provided to the employees in a sufficient amount and at the right time. In addition, if the employees' motivation to do something is low, their performance is just like a person who lacks talent and skills. The commander should feel successful and proud by the realization of the work and feel himself to share in the benefits resulting from reaching the goal.

## Knowledge and Skills to Show Their Expected Performance

By examining and considering the impact of other factors affecting job performance, the reason for creating a moderator variable in the relationship between commitment and job performance can be examined with a more comprehensive view. The strong effect of advanced education and basic talent search and job opportunities and resources and equipment in most European countries can be one of the reasons for the lower correlation between commitment and job performance in these countries.

The limitations of this study can be categorized into two parts. The first limitation is the lack of review of articles published in the years before 2012 and after 2019, which were not considered in this study. The second limitation is the lack of access to some articles published in the database. In order to achieve more accurate and comprehensive results in future studies, future researchers can also examine the articles published in other languages, as well as examine more complete and precise dimensions of the relationship between commitment and job performance.

## Conclusion

The results of this meta-analysis show that the relationship between commitment and job performance at the 95% confidence level according to Cohen's criterion has a moderate and positive effect with an effect size of 0.335. This result is in line with a large number of studies. Due to the great importance of raising the level of efficiency and productivity of organizations, it is important to examine the factors affecting job performance and this study can be used to advance the efficiency goals of organizations.

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