Spor Bilimleri Araştırmaları Dergisi
Journal of Sport Sciences Researches
Vol.: 7, Issue: 2, December, 2022
E-ISSN: 2548-0723
URL: http://www.dergipark.org.tr/jssr

How Academics' Work Motivation Affects Job Satisfaction? The Mediating Roles of The Four-Frame Leadership Model

Halil Erdem AKOĞLU[1*], T. Osman MUTLU[2], Halil Evren ŞENTÜRK[2], Asil ÇETİNKAYA[3]

[1]Ankara University, Faculty of Sports Sciences, Ankara, Turkey
[2]Muğla Sıtkı Koçman University, Faculty of Sports Sciences, Muğla, Turkey
[3]Muğla Sıtkı Koçman University, Graduate School of Medical Sciences, Muğla, Turkey

Original Article **DOI: 10.25307/jssr.1142380**
Received: 07.07.2022 Accepted: 06.11.2022 Online Publishing: 31.12.2022

Abstract

The aim of this study is to investigate work motivation and job satisfaction levels of academicians through mediation effect based on Bolman and Deal's Four Frame Leadership Model. This study is a descriptive situation analysis where survey technic is used. Three different scales are used in the study. In this research, a questionnaire was applied to 258 academicians working in 74 faculties of sports sciences in Turkey. Analyses of the study are conducted by Partial Least Squares - Structural Equation Model (PLS-SEM) approach that is supported by Smart-PLS® 3.2.8 software used for evaluating assumed relationships. There is a relationship found between work motivation and job satisfaction levels of the academicians in the study. There is a positive relationship found between Bolman and Deal's Four Frame Leadership Model and work motivation. On the other hand, no mediation effect is found between Bolman and Deal's Four Frame Leadership Model and work motivation and job satisfaction levels of academicians. Although previous research has examined the relationship between work motivation and job satisfaction, it has not examined the four-frame leadership approach. This study fills this gap in the literature. In addition, the research provides several managerial implications.
Keywords: Leadership, Job satisfaction, Work motivation, Leadership frames.

Akademisyenlerin İş Motivasyonu İş Doyumunu Nasıl Etkiler? Dört Çerçeveli Liderlik Modelinin Aracı Rolleri

Öz

Bu araştırmanın amacı Bolman ve Deal'ın Dört Çerçeveli Liderlik kuramının akademisyenlerin iş motivasyonu ve iş tatminlerinin aracılık etkisiyle incelenmesidir. Araştırma, anket tekniği kullanılan betimsel bir durum analizi çalışmasıdır. Araştırmada üç farklı ölçek kullanılmıştır. Bu araştırmada Türkiye'de 74 spor bilimleri fakültesinde görev yapan 258 akademisyene anket uygulanmıştır. Araştırma analizleri varsayılmış ilişkileri değerlendirmek için, Smart-PLS® 3.2.8 yazılımı ile desteklenen kısmi en küçük kareler yapısal eşitlik modelleme (PLS-SEM) yaklaşımını kullanarak yapılmıştır. Araştırmaya katılan akademisyenlerin iş motivasyonları ile iş doyumları arasında ilişki bulunmuştur. Bolman ve Deal'ın Dört Çerçeveli Liderlik Modeli ile iş motivasyonu arasında pozitif bir ilişki bulunmuştur. Öte yandan Bolman ve Deal'ın Dört Çerçeveli Liderlik Modeli ile akademisyenlerin iş motivasyonu ve iş doyum düzeyleri arasında aracılık etkisine rastlanmamıştır. Önceki araştırmalar iş motivasyonu ve iş tatmini arasındaki ilişkiyi incelemesine rağmen, dört çerçeveli liderlik yaklaşımını incelememiştir. Bu çalışma literatürdeki bu boşluğu doldurmaktadır. Ayrıca, araştırma çeşitli yönetsel çıkarımlar sunmaktadır.
Anahtar kelimeler: Liderlik, İş tatmini, İş motivasyonu, Liderlik çerçevesi.

[*]**Corresponding author:** Halil Erdem AKOĞLU, E-mail: heakoglu@ankara.edu.tr

INTRODUCTION

People have the biggest portion of their life by working. During this period, they are subjected to many situations and their motivation concerning their job and contentment levels regarding this varies from time to time. This varying motivation concerning their job and elements of contentment regarding it can be affected by different parameters. In order to provide a stable level productivity obtained from a work done by a regular employee, it is necessary for exterior negative effects in the working environment to be kept in minimum levels as well as positive effects should be kept at the highest. The employees whose expectations are met at the required amounts become happier and more peaceful in their working environment and this will add positive effects on their job satisfaction levels. This relationship at working environment between motivation and job satisfaction can be formed at a positive, neutral or negative rate based on some certain conditions and factors. One of the most significant among these factors is leadership attitudes in the organization worked (Eren & Titizoğlu, 2014; Gagné et al., 2010; Judge & Bono, 2001; Lay & Schouwenburg, 1993; Porter & Lawler, 1968a).

There are many studies in the literature about the relationship between job satisfaction and work motivation (Convey, 2014; Herzberg, 1964; 1968). The similar point in this study is that these two concepts are different but linked to each other (Octaviannand et al., 2017; Sahito & Väisänen, 2017). On the other hand, one of the intersection points between these two concepts is situation of leadership in the organization. The type of leadership that is considered to have good effect on the organization is known to create positive outputs both in work motivation and job satisfaction levels of the employees (Hee et al., 2020). The main determinant of the personnels' motivation and job satisfaction within the organization is the leader' way of managing and directing the organization. In managing the organization, when the leader reaches the optimum level concerning; structural, symbolic, political and humanitarian spheres, it is assumed that; job satisfaction and motivation levels of the employees will be affected positively (Glamuzina, 2015; Hee et al., 2018; You et al., 2017). Where there are employees led by a leader at an organization who is able to discriminate between their wishes and main needs; both the productivity at the organization may improve and job satisfaction of the employees as well as their work motivation can be increased to a certain level internally and externally (Maslow, 1943; Ryan & Deci, 2000).

According to Toker (2006) who studies the effect of motivation on job satisfaction, this is linked to employees having positive feelings about their work and working environment. In this regard, employees' feeling fulfillment in their work and working environment is directly associated with their adequate motivation in their working environment. Besides, mediation need of a leadership model to have multi-frame point of view between these two concepts is thought to be a factor to improve organizational productivity. In this regard, it is aimed to find out mediation effect between motivation and job satisfaction by "Four Frame Leadership Model" presented by Bolman and Deal (1984). Various studies suggest that decrease or increase of work motivation contentment of the employee at an organization may be linked to type of leadership at the said organization (Al-Sada et al., 2017; Hinson, 2018; Pawirosumarto et al., 2017; Priarso et al., 2019; Skaalvik, 2020; Torres, 2018).

In the concept of motivation, it is reported that; universities are the places where requirement for improvement and success is at the highest (Alderfer, 1972; Maslow, 1943). Especially, for the fact that the academicians can lead improvement of students, the concept of motivation plays a vital role in university campuses. Apart from handling the students successfully, to obtain their sustainability and consistency, the academicians need to be satisfied and motivated at an adequate level (Wininger & Birkholz, 2013). Having a look at organizations academicians are member of, we see three stereotypes that academicians display by which they are motivated. These academician stereotypes are the ones who are; eager to learn, eager to make research and the ones who are eager to do both. In order activate any of these factors at a productive extent, attention shall be paid for the leadership in the organization to meet at a point prioritizing structural, symbolic, political and humanitarian values (McClelland, 1965; Schneider & Zalesny, 1981). This is the exact point where relationship between work motivation, job satisfaction and leadership come together. Organizational working conditions, rules and policies are conducted and led by the leader to a large extent. This authority is given to the leader by law.

Elements of various leadership theories developed during twentieth century are commonly apparent within the framework of structural and human resources features based on Bolman and Deal's (1984, 2003) leadership tendency frames. It is also suggested that necessary studies shall be conducted especially on how Bolman and Deal's (1984, 2003) leadership tendency frames shape the research in higher education. Looking at the studies conducted, it is observed that; deans leading the faculties do their tasks by prioritizing human relations and a structuralist approach (Hart, 2018). What is more, it is also observed that; when the leaders choose "Four Frame Method" in taking more acceptable decisions about scientific issues at universities, they win the approval of the academicians who are members of the organization at a higher extent. When appreciation of the academicians about their leader in the organization is positive by the means of "Four Frame Method", this is a significant element that will help all the tasks given at the said organization to be fulfilled adequately as well increase satisfaction employees feel about the work they do and motivate them for their future tasks (Bolman & Deal, 2003; Feltner & Goodsell, 1972; Kimencu, 2011; Parmley, 2009). From this point of view, this study gives a different perspective since; it studies mediation effect of Bolman and Deal's Four Frame Leadership Theory on improving job satisfaction and motivation levels of academicians as well as productivity of the organization they are member of.

CONCEPTUAL FRAMEWORK

Work Motivation

The first person to recognize significance of work motivation is Sigmund Freud. He states that; the individual will start thinking that they will not realize their desires till the end of time. Thus, their behaviours will be affected by drives or sub-conscious needs (Hersey & Blanchard, 1996). There are many definitions of motivation in the literature. Mitchell (1982) defines motivation as; "level of individuals concerning desire and choice of some certain behaviours". Higgins (1994)'s definition of motivation is "an internal drive towards fulfilling the unfulfilled requirements". However, some researchers associate motivation with job. Luthans (2002) defines motivation as; "a process to create, promote lead and continue behaviour and

performance. Thus, he argues that it is a process to trigger people to move and fulfil a required tax. Work motivation is defined as "a large structure linked to conditions and processes to explain stimulation of the effort inside a person, its direction, size and continuation (Katzell & Thompson, 1990). As it is discussed above, there are well accepted internal and external motivation elements. These elements are known to play a key role in leading the effectiveness and the productivity of the employees in a good way (Gagné et al., 2010). In order to improve the satisfaction levels of the employees, understanding the motivation is highly significant (Latham & Pinder, 2005). Frederic Herzberg who recognizes the importance of external and internal effects to create concept of motivation, formulated double factor theory in the result of the study he conducted. Thanks to this theory, he found out that; internal motivation of the employees increases as a matter of course and elements of external motivation are related to the satisfaction they feel about their job (Brislin et al., 2005; Herzberg, 1965).

Four Frame Leadership Model

According to Bolman and Deal, frames are the keys to understand leadership. The reason is that the frames canalize what the leader thinks and how to behave. Bolman and Deal introduces four different leadership frames as follows; structural, human resources, political and symbolic. Table 1 summarizes the four frames by short metaphors, central concepts, leadership images and main leadership hardships.

Table 1. The Four-Frame Model

	Structural	Human Resource	Political	Symbolic
Metaphor for organization	Factory or machine	Family	Jungle	Carnival, temple, theatre
Central concepts	Rules, roles, goals, policies, technology, environment	Needs, skills, relationships	Power, conflict, competition, organizational politics	Culture, meaning, metaphor, ritual, ceremony
Image of leadership	Social architecture	Empowerment	Advocacy and political savvy	Inspiration
Basic leadership challenge	Attune structure to task technology environment	Align organizational and human needs	Develop agenda and power base	Create faith, beauty, meaning

Source: (Bolman & Deal, 2008)

Structural frame; an organization is a hierarchical system that works based on a predetermined chain of command, settled rules, procedures and processes. Metaphor for structural frame is "factory". Main concepts of the structural frame are prioritizing, rules, policies, goals, roles, technology, environment and regular decisions. Main leadership tasks in structural frame include reaching to goals, obtaining the results as well as modifying the structure of the organization feasible to fulfil the tasks. Besides, a leader to have this frame will focus on; productivity, planning, control and giving decisions (Bolman & Gallos, 2011).

"Family" is metaphor used for human resources. Human Resources Frame includes: elements the leaders use in leading the organization, requests and main requirements of the employees, personal skills they think that contribute to the organization and relationships within the

organization (Bolman & Deal, 2003). Here, evaluation is made about; employee contentment, motivation, productivity, assigning and developing skills. (Bolman & Gallos, 2011).

Political environment; The structure of this frame is composed of; political power of the leader in the organization, clashes between informal groups inside the organization and negotiations to meet in common terms. In this frame, organizational competition and political moves are more significant. (Lyon et al., 2014). In this frame, it is seen that the organizations are composed of groups manoeuvring and competing to get power in order control assigning of scarce resources. (Bolman & Gallos, 2011). In this frame, the leader forms ever changing coalitions and continue his own agenda. The leader to present a leadership by using this frame tries to continue his interests by; bargaining, negotiating, influencing and analysing strategies of rival groups and movements of stakeholders (Vuori, 2018). Thus, human resources frame uses a close and big family as a metaphor whereas political frame considers organizational life as a "forest".

Symbolic frame; The last frame which is named as symbolic uses "carnival, temple or theatre" as metaphor. The focal point of this point of view is; culture, rituals, vision and symbols of the organization. A leader who uses symbolic frame in his activities is responsible for; creating a common vision among the employees, direct meanings of events and activities as well as to inoculate passion to work for others (Bolman & Gallos, 2011).

Job satisfaction

Being an element affected by quality of working environment, job satisfaction has become a concept to be focus of interest for researchers for many years. Job satisfaction is considered as the attitude mostly linked to the work done (Alvinius et al., 2017). Weiss (2002) claims that job satisfaction is a true evaluation of the worker regarding the work. Galup et al. (2008) states that; higher levels of employee satisfaction normally contribute to the success of an organization where lower levels of it can be harmful. Job satisfaction is highly significant because; when the employees are happy with their job, there will be positive results such as; the productivity will be high, low un-attendance and higher performance (Meyer et al., 2004) although it is an era of low workmanship. Besides, job satisfaction among the employees can be supported by; forming teams, authorizing, rewards, coaching, training and effective communication (Cook, 2008). Not only job satisfaction but also the relationship between the leader and the followers explains effect of the employee on the job satisfaction level (Bogler, 2001; De Cremer, 2003; Tsai, 2011). When the employees perceive the quality of the leader as positive, it is said that their possibility of presenting attitudes such as; enthusiasm, wisdom and full capacity performance is higher. (Ja'afaru Bambale, 2014). Job satisfaction can be observed under three dimensions. They are; emotional reaction of the individual given towards the work regarding job satisfaction, status of fulfilment about the material and emotional expectations of the worker in the result of the work he conducts and factors of hygiene in the organization where an individual is included (Herzberg, 1964; Luthans, 1992; Oshagbemi, 2003).

Hypothesis Development

Figure 1 displays a conceptual framework to combine relationship between dependent and independent variants. Within the framework of four-frame leadership model, it is aimed at measuring effects on job satisfaction levels by the mediation of variables such as; structural,

human resources, political and symbolic frames. Besides, it shows direct effect of work motivation on job satisfaction. Direct effect by the means of structural, human resources, political and symbolic frames on work motivation is shown in this model too. What is more, direct effect by variants such as structural, human resources, political and symbolic frames on job satisfaction is also handled. In this part, relationship between the variants is shown and hypotheses about relationships are explained.

Relationship between work motivation and job satisfaction

The biggest factor to lead individuals to work is their wish to supply their needs. Satisfaction happens when requirements and expectations of the employees are fulfilled (Pancasila et al., 2020). According to Rao (2005), job satisfaction acts as a motivation to work. The role of job satisfaction is represented both by job satisfaction and many work motivation theories trying to find out its effects (Stankovska et al., 2017). According to Aamodt (2015), there are theories to suggest that job satisfaction is reached where employee motivation is obtained such as; requirement theory (Maslow, 1943); success theory (McClelland, 1965); double factor theory (Herzberg, 1964); justice theory (Adams, 1963); and expectations theory (Porter & Lawler, 1968b). In the literature, there are many researches from various professions to study the relationship between work motivation and job satisfaction (Ayub & Rafif, 2011; Igalens & Roussel, 1999; Kamdron, 2005; Maharjan, 2012; Moynihan & Pandey, 2007; Stankovska et al., 2017; Tella et al., 2007; Thuy et al., 2021). Having a look at the literature, it is seen that; motivation at work has positive and significant effect on contentment employees feel about their job. Based on this information, below hypothesis is constituted.

H1: There is a positive relationship between work motivation and job satisfaction.

Relationship between four frame leadership model and work motivation

Leader is trigger, channeler, motivator and stimulator in an organization (Samsir, 2018). Leading an organization is a permanent management hardship to include individual and collective efforts for a certain period of time. In order for the leaders in an organization to promote employees, means of motivation they use as well as leadership skills they present play a significant role in putting the juniors into action. Studies conducted on different samples in the literature show that there are relationships between leadership and motivation (Al-Sada et al., 2017; Canterino et al., 2020; Darmiati et al., 2020; Rita et al., 2018; Sypawka et al., 2010). In competition environment of today, it is important to focus on the necessity of positive motivation support by leaders working at the organizations on the juniors. It is considered for leadership model of Bolman and Deal to have positive effect on motivation of the juniors (Boff, 2015). Based on this information, below hypothesis is constituted. However, no research is found in the literature to study relationship between leadership orientated point of view by Bolman and Deal and work motivation. For this reason, below hypotheses that are thought to provide deepness into the literature are constituted.

H2a: There is a positive relationship between work motivation of Academicians and structural frame of leadership.
H2b: There is a positive relationship between work motivation of Academicians and human resources frame of leadership.
H2c: There is a positive relationship between work motivation of Academicians and political frame of leadership.

H2d: There is a positive relationship between work motivation of Academicians and symbolic frame of leadership.

Mediation effect of four frame leadership model on work motivation and job satisfaction

In work conditions of today, it is an undisputable situation that; roles of the leaders change and any type of organizational success drives from skilled leaders. Attitudes and actions of leaders are means to predetermined objectives and achievements. In this process of reaching success, an important connection is employees that are content and motivated. The effect on their; feelings, thoughts, motivations, requirements, requests and expectations certainly determines their job satisfaction (Chiva & Alegre, 2008). Based on the conditions of the organization, by presenting a determined method or attitude, leaders accept this effect. Leadership behaviour in general explains the relationship between the leaders and employees (Bakotić & Bulog, 2021). No study to consider leadership as a mediation effect and especially no study on mediation effect of Four Frame Leadership Mode of Bolman and Deal is found in the literature. Based on this information, hypotheses are constituted below.

H3: There is a mediation effect of structural frame of Leadership between work motivation and job satisfaction of academicians.
H4: There is a mediation effect of human resources frame of Leadership between work motivation and job satisfaction of academicians.
H5: There is a mediation effect of political frame of Leadership between work motivation and job satisfaction of academicians.
H6: There is a mediation effect of symbolic frame of Leadership between work motivation and job satisfaction of academicians.

METHOD

Research method

This study is designed to measure mediation effect of Four Frame Leadership Model of Bolman and Deal between work motivation and job satisfaction of academicians working at Faculty of Sport Sciences in Turkey. In this scope, the study is designed according to the model below (Figure 1).

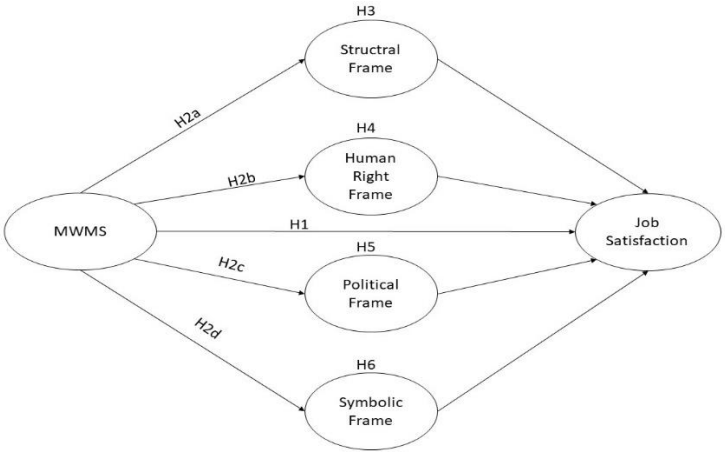


Figure 1. Proposed theoretical model

Sample design and data collection

The universe of the study is composed of academicians (N=1768) at faculty of sport sciences (n=74) working at universities of Turkey. The sampling is composed of 258 academicians working in abovesaid universities who are determined by appropriate sampling method and who wolunteers for the study and from whom suitable data is obtained. The data is obtained through "Google Forms" in online basis. Totally, 261 surveys are collected. Surveys of 3 participants are found to be invalid. As a result, analysis phase is started by participants. According to Hair et al. (2019), this number response meets the main rules of minimum number of sampling for conducting Structural Equation Model (SEM). Additionally, in order to calculate minimum dimension of sampling based on statistical power, G*Power v3.1.9.4 software is used. In the study, it is found out in the result of the analysis that; it is enough to have 178 sampling size in order to reach, 0,05 effect size and 0,95 statistical power (Faul et al., 2009)

Table 1 shows the demographic information about the participants in this study. 83,3 % of the participants are male where 16,7 % of the participants are female. 65,5 % of the participants are married. Among the participants form the Faculty of Sport Sciences; 32,6 % of work at department of Physical Education and Sport where 10,9 % works at department of Recreation. Among this group, 29,5 % of participants are Research Assistants were 7,8 % are Professors. 68,2 % of the participants have additional Administrative Tasks. The average age in the participants is 38,84 (±9,23) where their average year at service is 12,40 (±9,66). Besides, their average duration to work at the same organization is 8,07 (±7,53) years (Table 2).

Table 2. Demographic profile of the respondent

Variable		Frequency	Percentage	Total	$\bar{x}$	S	Min.	Max.
Gender	Female	43	16,7	258				
	Male	215	83,3					
Marital status	Married	169	65,5	258				
	Single	89	34,5					
Department	Physical Education and	84	32,6					
	Sports	69	26,7					
	Sport Management	77	29,8	258				
	Coaching Education	28	10,9					
	Recreation							
Title	Prof.	20	7,8					
	Associate Prof.	71	27,5					
	Assistant Prof.	56	21,7	258				
	Research Assistant	76	29,5					
	Lecturer	35	13,6					
Administrative tasks	Yes	82	31,8	258				
	No	176	68,2					
Age				258	38,84	9,23	23	67
Year at service				258	12.40	9,66	1	42
Duration to work at the same organization				258	8,07	7,53	1	35

Measurement Instruments

In order to measure the research model constituted; "The Multidimension Work Motivation Scale" and "Leadership Orientation Scale" are used.

The Multidimension Work Motivation Scale: "The Multidimension Work Motivation Scale" that is adapted to Turkish culture by Çivildağ and Şekercioğlu (2017) and developed by Gagné

et al. (2015) is used. The scale is five-point likert type scale and it is composed of 18 articles and 6 sub dimensions. They are "Personal Preparation", "External Preparation – Material", "External Preparation – Social", "Motivation", "Internal Reflected Preparation" and "Internal Motivation".

Leadership Orientation Scale: "Leadership Orientation Scale" that is developed by Bolman and Deal (1991) is composed of 23 articles where it is later revised by Thompson (2005) as including 32 articles and its final shape is given. This scale is adapted to Turkish by Özcan and Balyer (2013). The scale is five-point likert type scale and it is composed of 32 articles and 4 sub dimensions. They are "Structural Frame", "Human Resources Frame", "Political Frame" and Symbolic Frame".

General Job Satisfaction Scale: "General Job Satisfaction Scale" is developed by Brayfield and Rothe (1951) and short version is developed by Judge et al. (1998) where its five article version is adapted to Turkish by Keser and Öngen Bilir (2019).

Research Ethics

The ethical approval of the research was obtained by the decision of the ethics committee of Muğla Sıtkı Koçman University No. 81 and dated 2021/03/01.

Data analysis

The data obtained in the study is first subjected to SPSS 24 program to conduct analyses such as missing value, extreme value, percentage frequency and normality. Partial Least Squares - Structural Equation Model (PLS-SEM) approach that is supported by Smart-PLS® 3.2.8 software is used for evaluating assumed relationships in order to evaluate the analyses. PLS-SEM is an approach which reduces the unexplained variance amount to the minimum and which uses weighted components of indication variable in order to enable responsibility of measurement errors (Hair Jr et al., 2021; Ringle et al., 2015). This software also determines structures that are associated with dependent variable and measures the effects of each dependent variables on the independent variable (Henseler et al., 2009).

Normality Test

For the multi variant normality distribution of the data, test developed by Mardia (1970) is used. A web-based measurement tool developed by Zhang and Yuan (2018) is used for the test. Multi variant normality is one of the necessary criterions for a more correct model assumption. In the result of multi variant normality analysis, it is observed that, multi variant skewness of Mardia (β=1181.36, $p< 0.01$) and multi variant kurtosis (β=3706.61, $p< 0.01$) doesn't match with multi variant normal distribution. The reason for using PLS-SEM is that it can process these abnormal values at the best (Hair et al., 2019).

FINDINGS

When the variables and factor load of the articles are observed, it is seen that; factor loads are between 0,727 and 0,949 in all factor loads. According to Hair Jr et al. (2021), factor loads should be ≥0,708. Besides, Cronbach Alpha should be ≥0,70 (George & Mallery, 2019) and CR coefficient should be ≥0,70 ; where AVE coefficient is ≥0,50 (Hair Jr et al., 2017).

In the structures, since; Cronbach's Alpha coefficients are between 0,716 and 0,971; CR coefficients are between 0,841 and 0.976 and AVE coefficients are between 0,638 and 0,833; it is seen that internal consistency reliability is obtained. According to the results of these findings, the convergent validity is obtained (Table 3)

Table 3. Convergent validity

Constructs	Items	Outer loading (>0.6)	Cornbrash's alpha (>0.7)	Rho-A (> 0.7)	CR (> 0.7)	AVE (> 0.5)
Amotivation	A1	0.831	0.818	0.829	0.892	0.735
	A3	0.924				
	A5	0.813				
Intrinsic Motivation	IM1	0.887	0.824	0.803	0.901	0.820
	IM2	0.923				
External Regulation (Social)	ERS1	0.843	0.806	0.807	0.886	0.721
	ERS2	0.843				
	ERS3	0.862				
External Regulation (Material)	ERM1	0.828	0.716	0.729	0.841	0.638
	ERM2	0.837				
	ERM3	0.727				
Identified Regulation	IR1	0.899	0.846	0.848	0.907	0.765
	IR2	0.847				
	IR3	0.877				
Internal Regulated	IJR1	0.890	0.818	0.828	0.892	0.733
	IJR2	0.820				
	IJR3	0.857				
Structural Frame	SF1	0.890	0.971	0.975	0.975	0.832
	SF2	0.914				
	SF3	0.934				
	SF4	0.915				
	SF5	0.944				
	SF6	0.949				
	SF7	0.931				
	SF8	0.814				
Human Resource Frame	HRF1	0.908	0.968	0.970	0.973	0.819
	HRF2	0.935				
	HRF3	0.877				
	HRF4	0.904				
	HRF5	0.895				
	HRF6	0.915				
	HRF7	0.908				
	HRF8	0.898				
Political Frame	PF1	0.825	0.851	0.955	0.959	0.744
	PF2	0.845				
	PF3	0.910				
	PF4	0.861				
	PF5	0.881				
	PF6	0.852				
	PF7	0.808				
	PF8	0.913				
Symbolic Frame	SF1	0.922	0.971	0.974	0.976	0.833
	SF2	0.913				
	SF3	0.937				
	SF4	0.925				
	SF5	0.940				
	SF6	0.927				
	SF7	0.936				
	SF8	0.793				
Job Satisfaction	JB1	0.921	0.907	0.924	0.935	0.782
	JB2	0.926				
	JB4	0.887				
	JB5	0.798				

Table 4. Discriminant validity (Fornell-Larcker criterion)

Constructs	A	IM	ERS	ERM	IR	IJR	SF	HRF	PF	SMF	JS
Amotivation	**0.857**										
Intrinsic Motivation	-0.461	**0.905**									
External Regulation (Social)	0.121	0.111	**0.849**								
External Regulation (Material)	0.128	0.073	0.572	**0.799**							
Identified Regulation	-0.588	0.556	-0.037	-0.020	**0.875**						
Introjected Regulated	-0.570	0.479	-0.038	0.030	0.766	**0.856**					
Structural Frame	-0.362	0.332	0.094	0.205	0.298	0.257	**0.912**				
Human Resource Frame	-0.352	0.347	0.086	0.241	0.268	0.218	0.910	**0.905**			
Political Frame	-0.365	0.335	0.080	0.217	0.267	0.236	0.909	0.896	**0.863**		
Symbolic Frame	-0.352	0.329	0.096	0.215	0.280	0.250	0.902	0.898	0.842	**0.913**	
Job Satisfaction	-0.545	0.610	0.093	0.068	0.530	0.483	0.525	0.531	0.477	0.519	**0.885**

In determining discriminant validity, criterion advised Fornell and Larcker (1981) is used. According to criterion of Fornell and Larcker (1981), square root of average variance extracted (AVE) of structures explained in the study should be higher than the correlation coefficients in the study. In the analysis result shown at Table 3, values marked by "*" shows the square root value of AVE. When these values are investigated, it is observed that; AVE square root value of each structure is more than correlation coefficients with other structures (Table 4).

Table 5. Structural model Assessment Procedure

	Collinearity Assessment	**Significance of the path coefficients (β)**	f^2 **effect size**	**Signification**
General Framework	**VIF**	**Hypothesized relationships**	f^2	
MWMS→ JS	1.238	0.630	0.875	**High**
MWMS → Structral Frame	1.000	0.442	0.235	**Medium**
MWMS → HRF	1.000	0.425	0.213	**Medium**
MWMS → PF	1.000	0.434	0.221	**Medium**
MWMS → Symbolic Frame	1.000	0.429	0.216	**Medium**
Structral Frame → JS	13.670	0.186	0.008	Null
HRF → JS	11.945	0.349	0.025	Small
PF → JS	14.861	-0.585	0.062	Small
Symbolic Frame → JS	14.766	0.325	0.020	Small

When VIF (Variance Inflation Factor) values are investigated among the variables, it is determined that together with MWMS values, JS, Structural Frame, HRF, PF and Symbolic Frame values are lower than the threshold value which is 5. Thus, it is understood that there is no problem of linearity between these variables (Hair Jr et al., 2017). However, it is found out that; together with JS values, Structural Frame, HRF, PF and Symbolic Frame values are lower than the threshold value and there is no problem of linearity.

Effect size coefficient to be (f^2) 0,02 or more is considered to be low where this value to be 0,15 or more to be medium and 0,35 or more to be high (Cohen, 2013; Hair Jr et al., 2017). When effect size coefficients are investigated, it is found out that; MWMS has effect on JS at

a higher extent. Besides, it is found out that; MWMS has medium effect on Structural Frame, HRF, PF and Symbolic Frame. Besides, sub dimensions of Leadership Orientation Scale are found to have low effect on job satisfaction where Structural Frame among these dimensions is found to have no effect (Table 5).

Table 6. General model resolution by Smart PLS using PLS algorithm and Bootstrapping

Hypotheses	General Framework	(β)	Std Dev.	t-value	p-value	R^2	Confidence Intervals		Results
							Lower (2,5%)	Upper (97,5%)	
	Direct Effect								
H1	MWMS→ JS	0.630	0.049	15.181	**0.000**	0.642	0.645	0.830	**Accepted**
H2a	MWMS → Structral Frame	0.442	0.064	6.819	**0.000**	0.190	0.302	0.552	**Accepted**
H2b	MWMS → HRF	0.425	0.063	6.619	**0.000**	0.176	0.295	0.536	**Accepted**
H2c	MWMS → PF	0.434	0.066	6.475	**0.000**	0.181	0.291	0.552	**Accepted**
H2d	MWMS → Symbolic Frame	0.429	0.061	6.947	**0.000**	0.178	0.298	0.532	**Accepted**
	Indirect Effect								
H3	MWMS → Structral Frame → JS	0.078	0.105	0.837	0.403		-0.141	0.282	Rejected
H4	MWMS → HRF → JS	0.149	0.110	1.259	0.208		-0.054	0.374	Rejected
H5	MWMS → PF → JS	-0.252	0.134	1.816	0.070		-0.549	-0.011	Rejected
H6	MWMS → Symbolic Frame → JS	0.137	0.114	1.198	0.231		-0.064	0.388	Rejected

When R^2 values obtained in the study are observed, it is found out that; explanation ratios of the variables are as follows; 19 % in Structural Frame which is an endogenous variable; 17 % in Human Right Frame variable, 18 % in Political Frame variable and 17 % in Symbolic Frame variable. Besides, when analyses are studied in Smart-PLS 3.2.8'de (Hair Jr et al., 2021), mediation effect of Structural Frame, Human Right Frame, Political Frame and Symbolic Frame format is controlled among the relationship between MWMS and JS. Based on the indexes of Smart-PLS, the values found in Structural Frame (MWMS * Structural Frame → JS) (β= 0.078; 95% CI= -0.141-0.282), Human Right Frame (MWMS * HRF → JS) (β= 0.149; 95% CI= -0.054-0.374), Political Frame (MWMS * PF → JS) (β= -0.252; 95% CI= -0.549- -0.011) and Symbolic Frame (MWMS * SF → JS) (β= 0.137; 95% CI= -0.064- 0.374) suggest that mediation effect is not verified (Table 6)

DISCUSSION

By considering the studies in the literature, it is found out that; "Leadership Orientation Scale" is commonly applied on university deans and academic staff and it is also used in some PhD thesis (Boff, 2015; Bolman & Deal, 1990; Cantu, 1997; Little, 2010; Probst, 2011; Sypawka, 2008; Sypawka et al., 2010). In this regard, the universe of the study to be composed of university deans and academic staff strengthens the compatibility of this scale used. Different from studies previously conducted about work motivation and job satisfaction, values that are not seen before in the literature are used as mediators in this study. In this study, mediation effect of Four Frame Leadership Model developed by Bolman and Deal on the relationship between work motivation and job satisfaction is measured. In order to test the hypotheses, f^2

effect size, path coefficient, confidence interval, p value and R^2 analysis results are given in the values. When the results are observed, it is seen that there is no effect by the mediating variables.

In the Hypothesis 1, relationship between work motivation and job satisfaction levels of academicians are investigated and the hypothesis verified. It is found out that work motivation of academicians has 63 % direct effect on their job satisfaction. There are many studies in the literature to support our findings (De Sousa Sabbagha et al., 2018; Pool, 1997; Stankovska et al., 2017). According to the study conducted by Pool (1997) where participants from various sectors are included, a relationship is found between work motivation and job satisfaction. In another study conducted by Ahmadi et al. (2020) on academicians, a relationship is found between work motivation and job satisfaction similarly.

In hypothesis 2a-d on the other hand, direct effects between work motivation of academicians and dimensions of four frame leadership model and the hypothesis is verified. It is found out that effects on work motivation of academicians by the frames are; 44 % from structural frame, 42 % from human resources frame, 43 % from political frame and 43 % from symbolic frame. That is to say, the individual with high motivation embraces structural, human resources, political and symbolic leadership types in their leaders. In this regard, a motivated academician approves the general attitude of the leader in management activities while behaving according to the rules of the organization. Having a look at the findings in the literature, there is a positive relationship observed between leadership and work motivation (Darmiati et al., 2020; Mawanda, 2012; Rita et al., 2018; Sypawka et al., 2010). According to this, it is observed that findings in our study are similar to the findings in the literature. On the other hand, limitations about "Leadership Orientation Scale" developed by Bolman and Deal (1990) which is used in our study in associating it with motivation is the strong and valuable side of our study that is contributed to the literature.

Having a look at Hypothesis 3, 4, 5 and 6, it is found out that; no mediation effect is found between four frame leadership model of Bolman and Deal and multidimensional work motivation and job satisfaction. All these hypotheses are rejected for this study. According to the results of the study, it is found out that; academicians with high work motivation are satisfied in their job where this relationship disappears where four frame leadership concepts are used as mediators. In explaining this finding, we can argue that; academicians love more free working environments and in times of interference of the leaders, their motivation and satisfaction of their job diminishes.

Managerial implications

This research revealed that job motivation directly affects job satisfaction, and at the same time, work motivation also affects four-frame leadership behaviours. It was revealed that the mediation role was not present in this study. According to the results of the research, when the work motivation of the employees is high, the satisfaction they get from the job increases. It is seen that the four-frame leadership approach does not have an indirect effect on this relationship. Each of the academics can be shown as people with a leading spirit. They have to manage and direct many people both in their social life and in their work. A supportive and encouraging working environment should be provided for academics, most of whom have a free working spirit. It can be said that this supportive and encouraging work environment will

be more effective than the leadership style in increasing the satisfaction they get from the job. People who are managers in their institution should provide an environment of justice, respect and trust towards academicians. All these activities will help managers develop and maintain a positive and stimulating work environment that will make employees feel satisfied with their jobs (Bakotić & Bulog, 2021). This secure environment will enable academicians to produce more and provide higher quality education.

Limitations and future studies

Despite its contributions to the literature, the study also has limitations. First of all, this research was cross-sectional. Longitudinal research can be done to get sharper results about the concepts. In addition, this research was carried out with quantitative methods. In this research, we asked academics about their managers and institutions. For this reason, there may be situations where participants can give a biased answer. In order to prevent this, future studies can be conducted through qualitative research and mixed methods. In future research, variables such as organizational culture, transformational leadership, and business performance can be added to these concepts.

CONCLUSION

As a result, work motivation directly effects job satisfaction. Four Frame Leadership Model of Bolman and Deal have direct effect on work motivation. On the other hand, there is no mediation effect of Four Frame Leadership Model of Bolman and Deal on work motivation and job satisfaction.

Conflict of Interest: The authors declare that they have no conflict of interest.

Authors' Contribution: All authors have made a substantial and intellectual contribution to the study and approved it for publication.

Research Ethic Informations

Ethics Committee: The Ethics Committee of Muğla Sıtkı Koçman University

Date/Protocol number: 01.03.2021/ 81

REFERENCES

Aamodt, M. G. (2015). *Industrial/organizational psychology: An applied approach*. Cengage Learning.

Adams, J. S. (1963). Towards an understanding of inequity. *The journal of abnormal and social psychology*, *67*(5), 422-436. https://doi.org/10.1037/h0040968

Ahmadi, E. A., Herwidyaningtyas, F. B., & Fatimah, S. (2020). The influence of organizational culture, work motivation, and job satisfaction on management lecturer performance (Empirical Study at Higher Education in the Residency of Bojonegoro). *Journal of Industrial Engineering & Management Research*, *1*(3), 76-83.

Al-Sada, M., Al-Esmael, B., & Faisal, M. N. (2017). Influence of organizational culture and leadership style on employee satisfaction, commitment and motivation in the educational sector in Qatar. *EuroMed Journal of Business*, *12*(2), 163-188. https://doi.org/10.1108/EMJB-02-2016-0003

Alderfer, C. P. (1972). *Existence, relatedness, and growth: Human needs in organizational settings*. Free Press.

Alvinius, A., Johansson, E., & Larsson, G. (2017). Job satisfaction as a form of organizational commitment at the military strategic level. *International Journal of Organizational Analysis*, *25*(2), 312-326. https://doi.org/10.1108/IJOA-10-2015-0919

Ayub, N., & Rafif, S. (2011). The relationship between work motivation and job satisfaction. *Pakistan Business Review*, *13*(2), 332-347.

Bakotić, D., & Bulog, I. (2021). Organizational justice and leadership behavior orientation as predictors of employees job satisfaction: Evidence from Croatia. *Sustainability*, *13*(19), 1-16. https://doi.org/10.3390/su131910569

Boff, C. T. (2015). *A quantitative study of academic library administrators using Bolman and Deal's leadership orientation framework.* PhD Thesis. Bowling Green State University.

Bogler, R. (2001). The influence of leadership style on teacher job satisfaction. *Educational administration quarterly*, *37*(5), 662-683. https://doi.org/10.1177/00131610121969460

Bolman, L.G., & Deal, T. E. (1990). *Leadership orientations*. Leadership Frameworks.

Bolman, L.G., & Deal, T.E. (2003). *Reframing organizations-artistry, choice and leadership* (3: e uppl.). John Wiley and Sons Inc.

Bolman, L.G., & Deal, T. E. (2008). *Reframing organizations: Artistry, choice and leadership*. John Wiley & Sons.

Bolman, L.G., & Deal, T. E. (1991). Leadership and management effectiveness: A multi-frame, multi-sector analysis. *Human resource management*, *30*(4), 509-534.

Bolman, L.G., & Gallos, J. V. (2011). *Reframing academic leadership*. John Wiley & Sons.

Brayfield, A. H., & Rothe, H. F. (1951). An index of job satisfaction. *Journal of applied Psychology*, *35*(5), 307-311. https://doi.org/10.1037/h0055617

Brislin, R. W., MacNab, B., Worthley, R., Kabigting Jr, F., & Zukis, B. (2005). Evolving perceptions of Japanese workplace motivation: An employee-manager comparison. *International Journal of Cross Cultural Management*, *5*(1), 87-104. https://doi.org/10.1177/1470595805050829

Canterino, F., Cirella, S., Piccoli, B., & Shani, A. B. R. (2020). Leadership and change mobilization: The mediating role of distributed leadership. *Journal of Business Research*, *108*, 42-51. https://doi.org/10.1016/j.jbusres.2019.09.052

Cantu, D. A. (1997). *The leadership frames of academic deans randomly selected and nominated as exceptionally effective at public colleges and universities*. PhD Thesis. Arkansas State University.

Chiva, R., & Alegre, J. (2008). Emotional intelligence and job satisfaction: the role of organizational learning capability. *Personnel review, 37*(6), 680-701. https://doi.org/10.1108/00483480810906900

Cohen, J. (2013). *Statistical power analysis for the behavioral sciences*. Academic press.

Convey, J. J. (2014). Motivation and job satisfaction of Catholic school teachers. *Journal of Catholic Education, 18*(1), 4-25. https://doi.org/10.15365/joce.1801022014

Cook, S. (2008). *The essential guide to employee engagement: better business performance through staff satisfaction*. Kogan Page Publishers.

Çivildağ, A., & Şekercioğlu, G. (2017). Çok boyutlu iş motivasyonu ölçeğinin Türk kültürüne uyarlanması. *Akdeniz İnsani Bilimler Dergisi, 7*(1), 143-156. https://doi.org/10.13114/MJH.2017.326

Darmiati, D., Kristiawan, M., & Rohana, R. (2020). The influence of school leadership and work motivation toward teacher's discipline. *Journal of Social Work and Science Education, 1*(1), 32-44. https://doi.org/10.52690/jswse.v1i1.8

De Cremer, D. (2003). Why inconsistent leadership is regarded as procedurally unfair: the importance of social self-esteem concerns. *European Journal of Social Psychology, 33*(4), 535-550. https://doi.org/10.1002/ejsp.162

De Sousa Sabbagha, M., Ledimo, O., & Martins, N. (2018). Predicting staff retention from employee motivation and job satisfaction. *Journal of Psychology in Africa, 28*(2), 136-140. https://doi.org/10.1080/14330237.2018.1454578

Eren, M. Ş., & Titizoğlu, Ö. Ç. (2014). Dönüşümcü ve etkileşimci liderlik tarzlarının örgütsel özdeşleşme ve iş tatmini üzerindeki etkileri. *Sosyal Ekonomik Araştırmalar Dergisi, 14*(27), 275-303. https://doi.org/10.30976/susead.302228

Faul, F., Erdfelder, E., Buchner, A., & Lang, A.G. (2009). Statistical power analyses using G* Power 3.1: Tests for correlation and regression analyses. *Behavior research methods, 41*(4), 1149-1160. https://doi.org/10.3758/BRM.41.4.1149

Feltner, B. D., & Goodsell, D. R. (1972). The academic dean and conflict management. *The Journal of Higher Education, 43*(9), 692-701. https://doi.org/10.1080/00221546.1972.11776833

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research, 18*(1), 39-50. https://doi.org/10.1177/002224378101800312

Gagné, M., Forest, J., Gilbert, M.-H., Aubé, C., Morin, E., & Malorni, A. (2010). The motivation at work scale: Validation evidence in two languages. *Educational and psychological measurement, 70*(4), 628-646. https://doi.org/10.1177/0013164409355698

Gagné, M., Forest, J., Vansteenkiste, M., Crevier-Braud, L., Van den Broeck, A., Aspeli, A. K., Bellerose, J., Benabou, C., Chemolli, E., & Güntert, S. T. (2015). The Multidimensional Work Motivation Scale: Validation evidence in seven languages and nine countries. *European Journal of Work and Organizational Psychology, 24*(2), 178-196. https://doi.org/10.1080/1359432X.2013.877892

Galup, S. D., Klein, G., & Jiang, J. J. (2008). The impacts of job characteristics on IS employee satisfaction: A comparison between permanent and temporary employees. *Journal of Computer Information Systems, 48*(4), 58-68. https://doi.org/10.1080/08874417.2008.11646035

George, D., & Mallery, P. (2019). *IBM SPSS statistics 26 step by step: A simple guide and reference*. Routledge.

Glamuzina, M. (2015). Levels of leadership development and top management's effectiveness: Is there a clear-cut relationship? *Management: journal of contemporary management issues, 20*(Special issue), 89-131.

Hair, Jr. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European business review, 31*(1), 2-24. https://doi.org/10.1108/EBR-11-2018-0203

Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Sage Publications.

Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage publications.

Hart, T. M. (2018). *University Presidents' Utilization of Leadership Frames: A Qualitative Study Comparing Self-Perceptions of University Presidents to Perceptions of Faculty and Staff*. PhD Thesis. Hardin-Simmons University.

Hee, O., Ibrahim, R., Kowang, T., & Fei, G. (2018). Employee engagement as a mediator between transformational leadership and employee performance. *Asian Journal of Scientific Research, 11*(3), 441-448. https://doi.org/10.3923/ajsr.2018.441.448

Hee, O. C., Shi, C. H., Kowang, T. O., Fei, G. C., & Ping, L. L. (2020). Factors influencing job satisfaction among academic staffs. *International Journal of Evaluation and Research in Education*, *9*(2), 285-291. https://doi.org/10.11591/ijere.v9i2.20509

Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. In *New challenges to international marketing*. Emerald Group Publishing Limited.

Hersey, P., & Blanchard, K. (1996). Great ideas revisited: Revisiting the life-cycle theory of leadership. *Training & Development*, *50*(1), 42-47.

Herzberg, F. (1964). The motivation-hygiene concept and problems of manpower. *Personnel administration*, *27*(1), 3–7.

Herzberg, F. (1965). Job attitudes in the Soviet Union. *Personnel Psychology*, *18*(3), 245-252. https://doi.org/10.1111/j.1744-6570.1965.tb00283.x

Herzberg, F. (1968). *One more time: How do you motivate employees* (Vol. 65). Harvard Business Review.

Hinson, J. (2018). *Transformational leadership, perceived principal support, and collective efficacy: Predictors of teacher job satisfaction*. PhD Thesis. The University of Alabama.

Igalens, J., & Roussel, P. (1999). A study of the relationships between compensation package, work motivation and job satisfaction. *Journal of organizational behavior*, *20*(7), 1003-1025.

Ja'afaru Bambale, A. (2014). Relationship between servant leadership and organizational citizenship behaviors: Review of literature and future research directions. *Journal of Marketing & Management*, *5*(1). https://doi.org/10.1002/(SICI)1099-1379(199912)20:7<1003::AID-JOB941>3.0.CO;2-K

Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluations traits—self-esteem, generalized self-efficacy, locus of control, and emotional stability—with job satisfaction and job performance: A meta-analysis. *Journal of applied Psychology*, *86*(1), 80-92. https://doi.org/10.1037//0021-9010.86.1.80

Judge, T. A., Locke, E. A., Durham, C. C., & Kluger, A. N. (1998). Dispositional effects on job and life satisfaction: the role of core evaluations. *Journal of applied Psychology*, *83*(1), 17-34. https://doi.org/10.1037/0021-9010.83.1.17

Kamdron, T. (2005). Work motivation and job satisfaction of Estonian higher officials. *International Journal of Public Administration*, *28*(13-14), 1211-1240. https://doi.org/10.1080/01900690500241085

Katzell, R. A., & Thompson, D. E. (1990). Work motivation: Theory and practice. *American psychologist*, *45*(2), 144-153. https://doi.org/10.1037/0003-066X.45.2.144

Keser, A., & Öngen Bilir, K. B. (2019). İş tatmin ölçeğinin Türkçe güvenirlik ve geçerlik çalışması. *Kırklareli Üniversitesi Sosyal Bilimler Dergisi, 3*(3), 229-239.

Kimencu, L. (2011). *Leadership Orientations and Conflict Management Styles of Academic Deans in Masters Degree Institutions.* PhD Thesis. Virginia University

Latham, G. P., & Pinder, C. C. (2005). Work motivation theory and research at the dawn of the twenty-first century. *Annu. Rev. Psychol, 56*, 485-516. https://doi.org/10.1146/annurev.psych.55.090902.142105

Lay, C. H., & Schouwenburg, H. C. (1993). Trait procrastination, time management. *Journal of social Behavior and personality*, *8*(4), 647-662.

Little, S. D. (2010). *Perception or reality? A frame analysis of leadership behavior, style, and effectiveness among selected community college administrators*. PhD Thesis. The University of North Carolina at Charlotte.

Luthans, F. (1992). *Organizational behavior*. McGraw-Hill.

Luthans, F. (2002). The need for and meaning of positive organizational behavior. *Journal of Organizational Behavior*, *23*(6), 695-706. https://doi.org/10.1002/job.165

Lyon, L., Nadershahi, N., Nattestad, A., Kachalia, P., & Hammer, D. (2014). A curricular reform viewed through Bolman and Deal's organizational frames. *Journal of the Scholarship of Teaching and Learning*, *14*(3), 16-33. https://doi.org/10.14434/josotl.v14i3.4940

Maharjan, S. (2012). Association between work motivation and job satisfaction of college teachers. *Administration and Management Review*, *24*(2), 45-55.

Mardia, K. V. (1970). Measures of multivariate skewness and kurtosis with applications. *Biometrika*, *57*(3), 519-530. https://doi.org/10.1093/biomet/57.3.519

Maslow, A. H. (1943). A theory of human motivation. *Psychological review*, *50*(4), 370.

Mawanda, H. J. (2012). *Beyond technology, an analysis of the perceived impact of transformational leadership and contingent rewards as extrinsic motivation on virtual team member satisfaction and leadership effectiveness: A quantitative study*. PhD Thesis. Capella University.

McClelland, D. C. (1965). N achievement and entrepreneurship: A longitudinal study. *Journal of personality and Social Psychology*, *1*(4), 389-392. https://doi.org/10.1037/h0021956

Meyer, J. P., Becker, T. E., & Vandenberghe, C. (2004). Employee commitment and motivation: a conceptual analysis and integrative model. *Journal of applied Psychology*, *89*(6), 991-1007. https://doi.org/10.1037/0021-9010.89.6.991

Mitchell, T. R. (1982). Motivation: New directions for theory, research, and practice. *Academy of management review*, *7*(1), 80-88. https://doi.org/10.5465/amr.1982.4285467

Moynihan, D. P., & Pandey, S. K. (2007). Finding workable levers over work motivation: Comparing job satisfaction, job involvement, and organizational commitment. *Administration & Society*, *39*(7), 803-832. https://doi.org/10.1177/0095399707305546

Octaviannand, R., Pandjaitan, N. K., & Kuswanto, S. (2017). Effect of job satisfaction and motivation towards employee's performance in XYZ Shipping Company. *Journal of education and practice*, *8*(8), 72-79.

Oshagbemi, T. (2003). Personal correlates of job satisfaction: Empirical evidence from UK universities. *International journal of social economics*, *30*(12), 1210-1232. https://doi.org/10.1108/03068290310500634

Özcan, K., & Balyer, A. (2013). Liderlik oryantasyon ölçeğinin Türkçeye uyarlanması. *Mersin Üniversitesi Eğitim Fakültesi Dergisi*, *9*(1), 136-150.

Pancasila, I., Haryono, S., & Sulistyo, B. A. (2020). Effects of work motivation and leadership toward work satisfaction and employee performance: Evidence from Indonesia. *The Journal of Asian Finance, Economics, and Business*, *7*(6), 387-397. https://doi.org/10.13106/jafeb.2020.vol7.no6.387

Parmley, K. A. (2009). Raising the institutional research profile: Assessing the context and expanding the use of organizational frames. *New Directions for Institutional Research*, *2009*(143), 73-84. https://doi.org/10.1002/ir.306

Pawirosumarto, S., Sarjana, P. K., & Gunawan, R. (2017). The effect of work environment, leadership style, and organizational culture towards job satisfaction and its implication towards employee performance in Parador Hotels and Resorts, Indonesia. *International Journal of Law and Management*, *59*(6), 1337-1358. https://doi.org/10.1108/IJLMA-10-2016-0085

Pool, S. W. (1997). The relationship of job satisfaction with substitutes of leadership, leadership behavior, and work motivation. *The Journal of Psychology*, *131*(3), 271-283. https://doi.org/10.1080/00223989709603514

Porter, L. W., & Lawler, E. E. (1968a). *Managerial attitudes and performance*. Homewood, Ill., R.D. Irwin

Porter, L. W., & Lawler, E. E. (1968b). *What job attitudes tell about motivation*. Harvard Business Review Reprint Service.

Priarso, M. T., Diatmono, P., & Mariam, S. (2019). The effect of transformational leadership style, work motivation, and work environment on employee performance that in mediation by job satisfaction variables in Pt. Gynura Consulindo. *Business and Entrepreneurial Review*, *18*(2), 165-176. https://doi.org/10.25105/ber.v18i2.5334

Probst, M. B. (2011). *An analysis of leadership frame preference of academic administration: Using the Bolman and Deal four frame model.* PhD Thesis. Capella University.

Ringle, C. M., Wende, S., & Becker, J.M. (2015). *SmartPLS 3*. SmartPLS GmbH.

Rita, M., Payangan, O. R., Rante, Y., Tuhumena, R., & Erari, A. (2018). Moderating effect of organizational citizenship behavior on the effect of organizational commitment, transformational leadership and work motivation on employee performance. *International Journal of Law and Management*, *60*(4), 953-964. https://doi.org/10.1108/IJLMA-03-2017-0026

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, *55*(1), 68-78. https://doi.org/10.1037/0003-066X.55.1.68

Sahito, Z., & Väisänen, P. (2017). Effect of time management on the job satisfaction and motivation of teacher educators: A narrative analysis. *International Journal of Higher Education*, *6*(2), 213-224. https://doi.org/10.5430/ijhe.v6n2p213

Samsir, S. (2018). The effect of leadership orientation on innovation and its relationship with competitive advantages of small and medium enterprises in Indonesia. *International Journal of Law and Management*, 60(2), 530-542. https://doi.org/10.1108/IJLMA-01-2017-0005

Schneider, B., & Zalesny, M. D. (1981). Human needs and faculty motivation. *Administrative Science Quarterly, 18*(4), 489-505.

Skaalvik, C. (2020). School principal self-efficacy for instructional leadership: relations with engagement, emotional exhaustion and motivation to quit. *Social Psychology of Education*, *23*, 479-498. https://doi.org/10.1007/s11218-020-09544-4

Stankovska, G., Angelkoska, S., Osmani, F., & Grncarovska, S. P. (2017). Job motivation and job satisfaction among academic staff in higher education. *Bulgarian Comparative Education Society*, *15*, 159-166.

Sypawka, W. (2008). *A study of division Deans' in the North Carolina community college system self perceived leadership style based on Bolman and Deal's Four Frame Theory*. PhD Thesis. East Carolina University.

Sypawka, W., Mallett, W., & McFadden, C. (2010). Leadership styles of community college academic deans. *The community college enterprise*, *16*(1), 63.

Tella, A., Ayeni, C., & Popoola, S. (2007). Work motivation, job satisfaction, and organisational commitment of library personnel in academic and research libraries in Oyo State, Nigeria. *Library philosophy and practice*, *9*(2).

Thompson, M. D. (2005). Organizational climate and culture perception and job element satisfaction: a multi-frame application in a higher education setting. *E-Journal of Organizational Learning and Leadership*, *4*, 71-77.

Thuy, N. T. T., Hien, P. T. T., & Van, N. T. A. (2021). The mediating effect of work motivation on the influence of technical reward against job satisfaction in vietnamese monopoly. *International Journal of Business and Social Science*, *12*(1), 21-24. https://doi.org/10.30845/ijbss.v12n1p4

Toker, B. (2006). *Konaklama işletmelerinde işgören motivasyonu ve motivasyonun iş doyumuna etkileri İzmirdeki 5 ve 4 yıldızlı otellere yönelik bir uygulama*. Yayımlanmamış Doktora tezi, DEÜ, Sosyal Bilimleri Enstitüsü, İzmir.

Torres, D. G. (2018). Distributed leadership and teacher job satisfaction in Singapore. *Journal of Educational Administration*, *56*(1), 127-142. https://doi.org/10.1108/JEA-12-2016-0140

Tsai, Y. (2011). Relationship between organizational culture, leadership behavior and job satisfaction. *BMC health services research*, *11*(1), 1-9. https://doi.org/10.1186/1472-6963-11-98

Vuori, J. (2018). *Understanding academic leadership using the four-frame model*. Theoretical and Methodological Perspectives on Higher Education Management and Transformation: An advanced reader for PhD students. Western University

Weiss, H. M. (2002). Deconstructing job satisfaction: Separating evaluations, beliefs and affective experiences. *Human resource management review*, *12*(2), 173-194. https://doi.org/10.1016/S1053-4822(02)00045-1

Wininger, S. R., & Birkholz, P. M. (2013). Sources of instructional feedback, job satisfaction, and basic psychological needs. *Innovative Higher Education*, *38*(2), 159-170. https://doi.org/10.1007/s10755-012-9229-9

You, S., Kim, A. Y., & Lim, S. A. (2017). Job satisfaction among secondary teachers in Korea: Effects of teachers' sense of efficacy and school culture. *Educational Management Administration & Leadership*, *45*(2), 284-297. https://doi.org/10.1177/1741143215587311

Zhang, Z., & Yuan, K.-H. (2018). Practical Statistical Power Analysis Using Webpower and R (Eds). ISDSA Press.

Except where otherwise noted, this paper is licensed under a **Creative Commons Attribution 4.0 International license.**