Transformational or Transactional Leadership Style: Which Affects Work Satisfaction and Performance of Islamic University Lecturers During COVID-19 Pandemic?

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ABSTRACT

This study aim is to measure the effect of transformational or transactional leadership style on work satisfaction and work performance of Islamic university lecturers during COVID-19 Pandemic in Jakarta. Data collection was carried out through quantitative questionnaires with simple random sampling via electronic to Islamic university lecturers population in Jabodetabekduring COVID-19 pandemic. The results of the questionnaire returned and valid were 120 samples. Data processing used the SEM method with SmartPLS 3.0 software. The results of this study concluded that transformational leadership has a positive and significant effect on Islamic university lecturers satisfaction, transactional leadership has no significant effect on Islamic university lecturers satisfaction. This new research proposes a model to build work satisfaction for Islamic university lecturers in Jakarta through improving the transformational leadership. The research implications are discussed in relation to Islamic University supervisors and principals, as well as policy makers at the government level.

INTRODUCTION

The Corona virus has hit almost all countries in the world , including in Indonesia. The very rapid spread has a very concerning effect. As in Indonesia, the impact of this virus has made the government act decisively in providing policies so that all people reduce their activities / at home only if there are no matters that are too important to leave the house and urge not to create activities that invite a crowd of people. The Covid-19 pandemic is a world problem. Based on data from the World Health Organization (WHO) this pandemic has reached around 215 countries affected, including Indonesia. The development of the spread of Covid-19 in Indonesia is still increasing when viewed from daily statistical data on the number of cases. Thus, efforts are needed to build self-quality in the midst of this pandemic. During this pandemic, lecturers did not take holidays, but worked from home without anyone watching. So that it takes awareness to discipline yourself. Discipline is the entrance to success. Work activities must be carried out according to the set targets. This virus causes casualties every day, therefore the government asks the public to stay safe at home to maintain physical distance (Physical Distancing) and social distancing (Social Distancing) and even carry out regional quarantine to

prevent the spread of the Corona virus. The use of digital technology is the answer that is now being chosen by the people of Indonesia and the world. Depend on interactions through cyberspace such as online meetings, online

graduations, online learning and everything is completely online. Overseas people who want to use the opportunity to return home to gather with their families are delayed.

In this case utilizing applications as a method of delivery, interaction and facilitation. In it there is support for learning services that can be used by learning participants. The presence of internet technology is one of the factors that causes changes in human lifestyles in interacting with the outside world. Along with the times, the emergence of smartphones or smart devices based on Android has become the people's choice as a means of accessing the internet as a substitute for computers / laptops because they have complete features. One of the "lessons" behind the Covid-19 pandemic crisis is the onlineization of most formal education activities, including lectures. You could say that almost one hundred percent of lecturing activities are carried out online, even including final examinations at all levels (thesis, thesis or dissertation). It seems that it is not an exaggeration if Covid-19 has revolutionized the mode of study. This is because not only students who are already familiar with digital platforms, but also the senior generation (generation X and baby boomers) are forced to use e-learning applications. Online lectures do offer a variety of conveniences and conveniences. Among them, flexibility in space (placeless) and time (timeless). Lecturers and students do not have to physically meet so that lectures can be accessed anywhere as long as they can be reached by internet signals. Likewise in the upload and download method, lectures can be done anytime as needed. Lecturers and students can do both at the

most convenient time. The exception is if there is a rule or agreement that lectures are conducted live at a certain time. Accuracy of quantitative performance measurement through results-based digital automation (output). For example, what materials and assignments are posted and submitted, the duration of teaching, the intensity of online student attendance, student work results (assignments and exams) and so on. All of that can be recorded even perfectly illustrated by digital devices. This includes ensuring whether the work of lecturers and students (especially academic ones) contains plagiarism or not.

Online lectures make integration with the international world easier and cheaper. Collaboration in many ways, such as research, institutional cooperation, exchange of lectures and examiners (especially for final assignments) with universities abroad can simultaneously be a domino effect that accompanies it. An outside lecturer, for example, may fill out an online lecture in a certain class as a guest lecturer. The same can be done in the final exam trial. This of course can be a separate point to raise the rating (grade) of the institution. However, online lectures also pose a number of challenges. Especially the mindset of all academicians who still strongly rely on conventional modes. This implies at least for administrative procedures. The paradigm that is still stuck is the performance based on space and time that is certain (fixed). That is, physical presence largely determines administrative records. Both for lecturers as proof of attendance that determines the amount of rights received, as well as for students for attendance which also has consequences on the evaluation of the assessment.

Next comes infrastructure management that is not yet familiar with online mode. There are not a few cases where lecturers and students complain. This is due to the availability of an internet network which is often inadequate, large quotas that make it less friendly to student pockets, different platforms used among lecturers, making it difficult for institutions to administer and students to access lectures, to the level of ability to operate different digital devices. Interestingly, the pandemic crisis has forced all of these things to be fixed immediately. Some institutions even issued affirmative policies in the form of quota assistance for lecturers and students, uniform platforms to crash training to operate the required software. Indeed, the mainstream assumption considers that online lectures are more efficient. However, this is likely to apply if done thoroughly. That is, by eliminating conventional lectures altogether. He will cut various costs contained in conventional modes, such as boarding fees for students, building maintenance costs for institutions, cleaning service personnel costs, transportation costs to campus every day and so on. On the other hand, if you combine conventional and online courses there is a big possibility that the financing will double. This is because the financing for conventional lectures remains valid coupled with online lecture financing such as the cost of buying platforms for institutions, internet quota fees, adequate smartphone fees and so on. Finally, the substantive challenges in the form of learning objectives, especially those related to character building and the human side. Online lectures, in the experience of some people, feel inadequate in accommodating this. Indeed, virtual encounters have forced people to keep quiet and waste time. However, the side effect is that the relationship tends to be mechanistic and less emotional. Students and lecturers may carry out their function only to abort obligations. Does not involve much of the affective or psychomotor aspects. This certainly makes it difficult, for example, how to train students' skills in facing society or living in society.

How do lecturers understand their leadership? Do they think of him as a transformational or transactional leader? How is the relationship between work satisfaction and lecturer performance? A number of researchers have investigated the relationship between university leadership style, satisfaction and lecturer performance (Asbari et al., 2020; Purwanto, Bernarto, et al., 2020; Purwanto, Wijayanti, et al., 2019). However, an important factor that has often not been included in previous investigations is the perception of lecturers' work. This variable includes a number of aspects related to the concept of teaching as a profession, namely professional prestige, professional identification and social status, a sense of self-fulfillment, scope for oneself, self-development, and work autonomy. The aim of the current study was to examine the effect of two factors on lecturers' satisfaction from their works, namely the influence of university leadership styles (transformational or transactional) and their work satisfaction.

LITERATURE REVIEW AND HYPOTHESES
Transformational and Transactional Leadership
Over the past decade, the university has made fundamental changes in areas such as curriculum development, the role of lecturers, and learning strategy. These changes have brought about changes in the philosophy that dominate the field of educational leadership. As Leithwood (1992, 1994) shows that this form of instructional leadership is appropriate to the world of education, both in the 1980s and 1990s. However, the changes made during the 1990s could not be overcome by the function of the University Leader as an instructional leader. The concept of transformational leadership has gradually begun to shift the concept of instructional leadership, as the hope of the education world for university leaders to bring visionary leadership types into the organization. A mandate that instructional leaders find difficult to fulfill.Leithwood and Jantzi (1990) show that university leaders who are successful in their work have used various mechanisms to motivate and activate their staff to bring about change in their university culture. Referring to transformational leadership, Burns (1978) describes their followers and leaders as inspiring each other to attain "a higher level of morality and motivate justice and equality. Meanwhile, transactional leadership refers to the exchange relationship between leaders and their followers. Each "makes a deal" because of the expectation to meet each other's interests and this is the leader's way of maintaining performance by satisfying the needs of followers. (Asbari et al., 2020; Purwanto, Asbari, et al., 2019) indicate that transformational leadership binds leaders and followers in a collaborative process and thus contributes to the performance of the entire organization. Transactional leadership, meanwhile, does not bind leaders and followers in any way of collaboration. Therefore, this type of leadership results in a routine, uncreative but stable organizational environment. In contrast to transformational leadership which requires a responsive attitude and an innovative environment. Perceptions of this leadership style contain an assessment that transformational leadership is described as more beneficial than transactional leadership.

In validating Burns' leadership concept, Bass (1985) developed the Multifactor Leadership Questionnaire (MLQ). By analyzing the factors, Bass was able to identify three transformational sub-factors of leadership that were labeled charisma, personal consideration, and intellectual stimulation. Bass also identified two sub-factors of transactional leadership labeled contingent reward and management by exception. According to Bass, charisma is the individual's ability to arouse followers and lead them to follow the leader's vision and mission. Personal consideration is a leader's ability to pay personal attention to followers, while intellectual stimulation is a leader's ability to motivate

followers to think in innovative and unusual solutions to various problems at hand. Later, Bass and Avolio (1990) added another factor, namely inspiration to describe transformational leadership. Even so, the ability to inspire is considered closely related to charisma and because it is often seen as the same constituent.Leithwood and Jantzi (2000) identified six main characteristics of transformational educational leaders, namely building a university's vision and goals, providing intellectual stimulation, offering individualized support, symbolizing professional practices and values, showing high performance expectations, and developing structures to foster participation in university decisions. Contingent reward, a subfactor of transactional leadership, relates to situations in which a leader rewards followers for completing an agreed-upon task. Management by exception is another subfactor that describes transactional leadership, relating to situations where the leader only responds in cases when there is a problem. Then, this factor is as conceived in two forms: passive and active (Bass &Avolio, 1990). This subfactor, management by exception, appears to be a negative attribute of leadership (Geijsel, Sleegers, & Berg, 1999; Silins, 1994). In relation to educational settings, transactional leadership has been described as having four dimensions, namely staffing, instructional support, monitoring school activities, and community focus (Leithwood&Jantzi, 2000).

Lecturer Work Satisfaction
The mission of education seems to depend on how the lecturers feel about their work and how satisfied they are with it. Therefore, it is not surprising that researchers suggest that universities should pay more attention to increasing lecturer work satisfaction (Heller, Clay, & Perkins, 1993). Most of the research on lecturer work satisfaction has its roots in the earlier research of Herzberg, Mausner, and Snyderman (1959) that identified motivation factors and hygiene factors. Herzberg's Two-Factor Theory identified that motivation factors are related to psychological needs. This need includes a series of intrinsic conditions, work satisfaction (work content) which, if present in the work, will drive a strong level of motivation, which can result in achievement. Motivation factors are related to personal appreciation that is directly related to work. These factors are called satisfiers which include achievement, recognition, work itself, responsibility, and opportunities to develop. Meanwhile, the hygiene factor or maintenance factor is a maintenance factor related to human nature who wants to get physical peace. This health need according to Herzberg is a need that lasts continuously, because this need will return to zero after being met. This factor is related to work extrinsic matters, such as working conditions, supervision, work policies, salaries, and interpersonal relationships (Dinham& Scott, 1998).
The extensive literature supports claims that work satisfaction is positively associated with participatory decision making and transformational leadership (Maeroff, 1988; Rossmiller, 1992). Overall, lecturers reported greater satisfaction in their work when they viewed their university head as someone who shared information with others, delegated authority, and maintained open communication with lecturers. (Imper et al., 1990; Rice & Schneider, 1994). The satisfaction of teaching lecturers is also associated with higher autonomy in the workplace (Hall, Pearson, & Carroll, 1992; Poulin& Walter, 1992) and with other aspects that are involved. related to the teaching profession. Goodlad (1984) found that lecturers who reported that they chose works because of inherent professional values expressed higher levels of satisfaction and greater commitment than their peers who went to teach for economic reasons. Hall et

al (1992) revealed that lecturers planning to leave the profession expressed less work satisfaction and more negative attitudes towards teaching as a career. Lecturer work satisfaction is also related to lecturer retention through various aspects such as satisfaction with university leadership leadership (Betancourt-Smith, Inman, & Marlow, 1994) and general satisfaction (Zigarelli, 1996). Reyes and Shin (1995) found that lecturer work satisfaction is a determinant of dosendan commitment and that it must exist before individuals make organizational commitment. lecturers derive work satisfaction from their relationship with current and previous students, the relationship between lecturers and parents and colleagues (Dinham, 1995). Dinham (1995) also found that interpersonal relationships were among the main sources of lecturer satisfaction, whereas sources of lecturer work dissatisfaction were related to structural and administrative factors. Another indication for the importance of the lecturer-student relationship is found in Gay's (1995) study, which revealed that the most effective lecturers emphasize the student-lectures relationship. As Shann (1998) concluded that the lecturer-student relationship was the most important and reported a more satisfied relationship with aspects of their work than others. Knowing their students achieve their accomplishments and watching them learn from their experiences, in addition to using the skills they have acquired, is a major source of work satisfaction among professors. Student achievement was identified as a very important source of lecturer satisfaction, according to an interesting finding of the study (Dinham, 1995).

Lecturers' Work Perceptions
The term lecturer work perception refers primarily to the intrinsic and extrinsic dimensions of a lecturer work. Intrinsic traits are related to aspects of teaching such as autonomy at work (Pearson, 1995), professional pride and status, personal development, and self-esteem. Extrinsic nature refers to the physical aspects of the workplace and its benefits (for example: salary). Obviously, these two types of aspects relate to problems related to teaching work as a profession. In relation to the work satisfaction of lecturers, it is hypothesized that a lecturer work description is a profession that provides high status, good individual promotion opportunities, the possibility for self-development, and personal growth (among others) will positively influence their work satisfaction measures. Sergiovanni (1967) too, in trying to test Herzberg's two-factor theory and confirm the findings of Herzberg et al. (1959). Sergiovanni found that satisfiers are responsible for achievement, recognition, and responsibility and dissatifiers including interpersonal relationships with peers and subordinates, supervision (technical), and university policy. In a study examining the effects of leader behavior, it was found that work status is an important factor in predicting satisfaction (House, Filley, & Kerr, 1971). The effect of perceptions of lecturer autonomy in the classroom was also examined and found to be positively correlated with work satisfaction (Kreis&Brockoff, 1986). Lecturer empowerment is another aspect of dosent perceptions of their work. It refers to professional growth, autonomy, self-efficacy, impact (lecturers' perceptions of their ability to influence university performance), professional rewards, and involvement in decisions that directly influence their work (Sheppard, 1996). Sheppard (1996) found a positive relationship between the instructional leadership behavior of university heads, teaching quality, learning and professional engagement. Professional engagement is here defined as the degree to which lecturers feel involved about their work, want to learn from each other, and are committed to professional development. Dinham and Scott (1998) found that lecturers were most satisfied with

matters intrinsic to their work, such as self-growth, mastery of professional skills, and a supportive environment. This finding implies that lecturers really value the professional aspect of their work.

Community Based on the theoretical study and previous research above, the research model is as in Figure 1. The research hypothesis is as follows:

H1: Transformational leadership has a significant effect on lecturer work satisfaction

H2: Transactional leadership has a significant effect on lecturer work satisfaction

H3: Transformational leadership has a significant effect on lecturer performance

H4: Transactional leadership has a significant effect on lecturer performance

H5: Lecturer satisfaction has a significant effect on lecturer performance

H6: Transformational leadership has a significant effect on lecturer performance through mediation of lecturer work satisfaction

H7: Transactional leadership has a significant effect on lecturer performance through mediation of lecturer work satisfaction

METHODS

The method used in this research is quantitative method. Data collection is carried out by distributing questionnaires to all university lecturers in Jakarta during the COVID-19 pandemic. The instrument used to measure all the variables of this study was adapted from (Bogler, 2001), with 5 items for each variable. The questionnaire is designed closed except for questions / statements regarding the identity of the respondent in the form of a semi-open questionnaire. Each closed question / statement item is given five answer options, namely: strongly agree (SS) score 5, agree (S) score 4, disagree (KS) score 3, disagree (TS) score 2, and strongly disagree (STS)) score 1. The method for processing data is by using PLS and using SmartPLS version 3.0 software as a tool. The population in this study were university lecturers in the Jakarta area, whose numbers have not been identified with certainty. The questionnaires were distributed electronically using simple random sampling technique. The results of the questionnaire returned were 120 questionnaires

Table 1. Profile of respondents

	Criteria	Total
Age	< 30 years	40
	30 - 40 years	60
	> 40 years	20
Working period as lecture	< 5 years	60
	5-10 years	40
	> 10 years	20
Education	< S2(Master degree)	90
	≥ S2 (Doctoral degree)	30

For respondents who were under 30 years old were 50lectures, respondents aged 30-40 years were 60 lectures and respondents aged over 40 years were 20lectures. There were 60 respondents for Working period as lecture under 5 years, 40 respondents for working period as lectures for 5 - 10 years, and 20 lectures for Working period as lectures over 10 years. For respondents with education levels below the bachelor's degree, there were 90lectures, and respondents with education levels above the bachelor's degree were 30lectures.
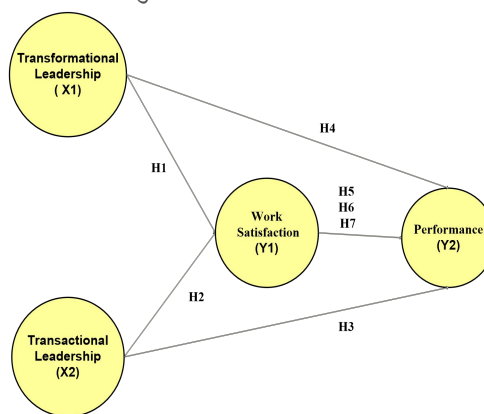

Figure 1. Research Framework

Based on the theoretical study and previous research above, the research model is as in Figure 1.While the research hypothesis is as follows:

H1: Transformational leadership has a significant effect on lecturer work satisfaction

H2: Transactional leadership has a significant effect on lecturer work satisfaction

H3: Transformational leadership has a significant effect on lecturer performance

H4: Transactional leadership has a significant effect on lecturer performance

H5: Lecturer satisfaction has a significant effect on lecturer performance

H6: Transformational leadership has a significant effect on lecturer performance through mediation of lecturer work satisfaction

H7: Transactional leadership has a significant effect on lecturer performance through mediation of lecturer work satisfaction

RESULT AND DISCUSSION

### Testing of the Validity and Reliability of each Indicator

This testing phase includes testing for convergent validity, discriminant validity and composite reliability. The results of the PLS analysis can be used to test the research hypothesis if all indicators in the PLS model have met the requirements of convergent validity, discriminant validity and reliability testing.

1. Convergent Validity Testing indicators

Convergent validity test is done by looking at the loading factor value of each indicator against the construct. Based on the reference, factor weights of 0.5 or more are considered to have sufficiently strong validation to explain latent constructs (Chin, 1998; Hair et al, 2010; Ghozali, 2014). In this study, the minimum accepted factor value is 0.5, provided that the AVE value of each construct is> 0.5 (Ghozali, 2014).

Figure 2. Estimation valid model
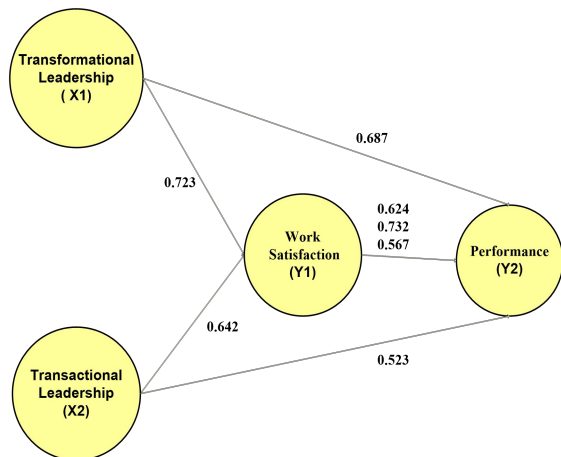
Based on the estimation results of the PLS model in the figure 2 above, all of indicators have a loading factor value above 0.5 so that the model has met the convergent validity requirements. Convergent validity was also assessed from the AVE value of each construct. The AVE value of each construct of this study was above 0.5. So the convergent validity of this research model has met the requirements. The value of loadings, cronbach's alpha, composite reliability and AVE for each complete construct can be seen in table 2 below:

Table 2. Average Variance Extracted (AVE)

Variables	Items	Loadings	Cronbach's Alpha	Composite Reliability	AVE
Transformational (X1)	X11	0.821	0.891	0.712	0.721
	X12	0.623			
	X13	0.781			
Transactional (X2)	X21	0.792	0.810	0.713	0.824
	X22	0.908			
	X33	0.693			
Work Satisfaction (Y1)	Y11	0.892	0.712	0.823	0.824
	Y12	0.690			
	X13	0.789			
Lectures Performance (Y2)	Y21	0.892	0.612	0.782	0.783
	Y22	0.901			
	Y23	0.891			

3. Construction Reliability Testing

Construct reliability can be assessed from the Cronbach's alpha value and the composite reliability of each construct. The recommended composite reliability and cronbach's alpha value is more than 0.7. (Ghozali, 2014) The results of the reliability test in Table 2 above show that all constructs have a composite reliability value and Cronbach's alpha is greater than 0.7 (> 0.7). In conclusion, all constructs have met the required reliability.

Testing of the validity of discriminant variables

Discriminant validity testing is performed to ensure that each concept of each latent variable is different from other latent variables. The model has good discriminant validity if the AVE square value of each exogenous construct (the value on the diagonal) exceeds the correlation between this construct and other constructs (values below the diagonal) (Ghozali, 2014). The results of discriminant validity testing using the AVE square value, namely by looking at the Fornell-Larcker Criterion Value are obtained as follows:

Table 3. Discriminant Validity

Variables	X1	X2	Y1	Y2
X1	**0.723**			
X2	0.792	**0.871**		
Y1	0.875	0.863	**0.826**	
Y2	0.782	0.821	0.781	**0.871**

The results of the discriminant validity test in table 3 above show that all constructs have a square root value of AVE above the correlation value with other latent constructs (through the Fornell-Larcker criteria) so that it can be concluded that the model has met discriminant validity.

Table 4. *R Square* Value

	R Square	R Square Adjusted
Lectures' Performance(Y2)	0.892	0.701
Lectures' Satisfaction (Y1)	0.781	0.823

Based on Table 4 above, the value of R Square Y1 is 0.781, which means that the lecture satisfaction (Y1) variable can be explained by the transformational leadership (X1) and transactional leadership (X2) variables of 78.1%, while the remaining 21.9% is explained by other variables not discussed in this study. Meanwhile, the value of R Square Y2 is 0.892 which means that the variable of lecturer performance (Y2) can be explained by the variables of transformational leadership (X1), transactional leadership (X2) and work satisfaction (Y1) of 89.2%, while the remaining 11.8% is explained by variables. others that were not discussed in this study.

Hypothesis Testing

Hypothesis testing in this PLS includes testing the significance of direct and indirect effects and measuring the influence of exogenous variables on endogenous variables. To determine the effect of transactional leadership, transactional leadership and organization learning on lectures innovation capability, a direct effect test is needed. The direct effect test was carried out using the t-statistical test in the partial least squared (PLS) analysis model using the SmartPLS 3.0 software. With the boothstrapping technique, the R Square value and the significance test value are obtained as shown in the table 5 below:

Table 5. Hypothesis Testing Result

Hypothesis	Relationship	Beta	SE	T	P-Values	Decision

			Statistics			
H1	X1 -> Y1	0.343	0.031	3.123	0.001	Supported
H2	X2 -> Y1	0.356	0.042	3.213	0.000	Supported
H3	X1-> Y2	0.301	0.021	4.124	0.001	Supported
H4	X1-> Y2	0.342	0.034	4.091	0.000	Supported
H5	Y1-> Y2	0.309	0.032	4.022	0.001	Supported
H6	X1->Y1->Y2	0.305	0.045	3.123	0.000	Supported
H7	X2-> Y1->Y2	0.301	0.034	2.987	0.001	Supported

Table 5 shows the T Statistics and P-Values which show the influence between the research variables that have been mentioned. In summary, transformational leadership has a positive and significant effect on work satisfaction, both directly and through work perception media. So H1, H3, H5 and H6 are accepted. Meanwhile, transactional leadership has a significant effect on work satisfaction of lecturers, both directly and through mediation of lecturers' work perceptions. So H2, H4, and H7 are accepted.

H1: Transformational leadership has a significant effect on lecturer work satisfaction
Based on the hypothesis testing results, it was found that the Beta value was 0.343, SE 0.031, T Statistics 3.123 and P-Values 0.001 so it can be concluded that Transformational leadership has a significant effect on lecturer work satisfaction. These results are in line with the research conducted by Purwanto (2019) that Transformational leadership has a significant effect on work satisfaction of lecturers, Purwanto (2020) that Transformational leadership has a significant effect on work satisfaction, Asbari (2019) states that Transformational leadership has a significant effect on work satisfaction. 2020) that Transformational leadership has a significant effect on lecturer work satisfaction, Santoso (2019) that Transformational leadership has a significant effect on lecturer work satisfaction, Wijayanti (2019) that Transformational leadership has a significant effect on lecturer work satisfaction, Hyun (2019) states that Transformational leadership has a significant effect on Lecturer work satisfaction, Bernarto (2019) states that Transformational leadership has a significant effect on work satisfaction.

H2: Transactional leadership has a significant effect on lecturer work satisfaction
Based on the hypothesis testing results, it was found that the Beta value was 0.356, SE 0.042, T Statistics 3.213 and P-Values 0.000, so it can be concluded that Transactional leadership has a significant effect on lecturer work satisfaction. These results are in line with research conducted by Purwanto (2019) that Transactional leadership has a significant effect on work satisfaction of lecturers, Santoso (2019) that Transactional leadership has a significant effect on work satisfaction of lecturers, Wijayanti (2019) that Transactional leadership has a significant effect on work satisfaction, Asbari (2019) that Transactional leadership has a significant effect on work satisfaction of lecturers, Bernarto (2019) that Transactional leadership has a significant effect on work satisfaction.

H3: Transformational leadership has a significant effect on lecturer performance
Based on the hypothesis testing results, it was found that the Beta value was 0.301, SE 0.021, T Statistics 34.124 and P-Values 0.001 so that it was concluded that Transformational leadership had a significant effect on lecturer performance. This result is in line with research conducted by Purwanto (2019) that Transformational

leadership has a significant effect on lecturer performance, Purwanto (2020) that Transformational leadership has a significant effect on lecturer performance, Asbari (2019) states that Transformational leadership has a significant effect on lecturer performance, Purwanto (2020)) that Transformational leadership has a significant effect on lecturer performance satisfaction, Santoso (2019) that Transformational leadership has a significant effect on lecturer performance satisfaction, Wijayanti (2019) states that Transformational leadership has a significant effect on lecturer performance satisfaction, Hyun (2019) states that Transformational leadership has a significant effect on performance lecturer, Bernarto (2019) that Transformational leadership has a significant effect on lecturer performance.

H4: Transactional leadership has a significant effect on lecturer performance
Based on the hypothesis testing results, it was found that the Beta value was 0.342, SE 0.034, T Statistics 4.091 and P-Values 0.000 so it was concluded that Transactional leadership had a significant effect on lecturer performance. These results are in line with the research conducted by Purwanto (2019) that Transactional leadership has a significant effect on lecturer performance, Santoso (2019) that Transactional leadership has a significant effect on lecturer performance, Wijayanti (2019) that Transactional leadership has a significant effect on lecturer performance, Asbari (2019)) that Transactional leadership has a significant effect on lecturer performance, Bernarto (2019) that Transactional leadership has a significant effect on lecturer performance.

H5: Lecturer satisfaction has a significant effect on lecturer performance
Based on the hypothesis testing results, it was found that the Beta value was 0.309, SE 0.032, T Statistics 4.022 and P-Values 0.001, so it was concluded that lecturer satisfaction had a significant effect on lecturer performance. These results are in line with the research conducted by Purwanto (2019) that lecturer satisfaction has a significant effect on lecturer performance, Santoso (2019) that lecturer satisfaction has a significant effect on lecturer performance, Wijayanti (2019) that lecturer satisfaction has a significant effect on lecturer performance, Asbari (2019)) that lecturer satisfaction has a significant effect on lecturer performance, Bernarto (2019) that lecturer satisfaction has a significant effect on lecturer performance.

H6: Transformational leadership has a significant effect on lecturer performance through mediation of lecturer work satisfaction
Based on the hypothesis testing results, it was found that the Beta value was 0.305, SE 0.045, T Statistics 3.123 and P-Values 0.001
Transformational leadership has a significant effect on lecturer performance through mediation of lecturer work satisfaction. These results are in line with the research conducted by Purwanto (2019) that Transformational leadership has a significant effect on lecturer performance

through mediation of lecturer work satisfaction, Purwanto (2020) that Transformational leadership has a significant effect on lecturer performance, Asbari (2019) states that Transformational leadership has a significant effect on performance lecturer, Purwanto (2020) that Transformational leadership has a significant effect on lecturer performance satisfaction through mediation of lecturer work satisfaction, Santoso (2019) that Transformational leadership has a significant effect on lecturer performance satisfaction, Wijayanti (2019) that Transformational leadership has a significant effect on lecturer performance satisfaction, Hyun (2019) that Transformational leadership has a significant effect on lecturer performance through mediation of lecturer work satisfaction, Bernarto (2019) that Transformational leadership has a significant effect on lecturer performance through mediation of satisfaction lecturer work.

H7: Transactional leadership has a significant effect on lecturer performance through mediation of lecturer work satisfaction

Based on the hypothesis testing results, it was found that the Beta value was 0.301, SE 0.034, T Statistics 2.987 and P-Values   0.001 so that it was concluded that transactional leadership had a significant effect on lecturer performance through mediation of lecturer work satisfaction. This result is in line with the research conducted by Purwanto (2019) that Transactional leadership has a significant effect on lecturer performance through mediation of lecturer work satisfaction through mediation of lecturer work satisfaction, Santoso (2019) that Transactional leadership has a significant effect on lecturer performance through mediation of lecturer work satisfaction, Wijayanti (2019) that Transactional leadership has a significant effect on lecturer performance, Asbari (2019) states that Transactional leadership has a significant effect on lecturer performance through mediating lecturer work satisfaction, Bernarto (2019) that Transactional leadership has a significant effect on lecturer performance through mediation of lecturer work satisfaction.

The most interesting finding from this study is the effect of lecturers' perceptions on their work satisfaction. They have a perception of work prestige, self-esteem, autonomy in the workplace, and professional self-development that contribute the most to work satisfaction. These findings support previous research which revealed a significant positive relationship between aspects of teaching work and work satisfaction (Asbari, Bernarto, et al., 2020; Purwanto, MayestiWijayanti, et al., 2019). This variable serves as an intermediary variable for the leadership style of the head of the university and lecturer satisfaction. In this study, lecturers reported feeling very satisfied when their work gave them a "sense of self-worth," gave them "opportunities for self-development," gave them a "feeling of success," and enabled them "to participate in determining teaching and learning practices in universities. Expressions of such feelings about their work support theories of lecturer work satisfaction, such as the two-factor theory derived from the work of Herzberg et al. (1959). These researchers argue that motivators, which refer to intrinsic aspects of teaching such as lecturers' self-growth, personal development, and recognition, tends to promote work satisfaction. Cleanliness factors, which are associated with external aspects of the work as poor working conditions, tend to lead to lecturer dissatisfaction (Asbari, Nurhayati, et al., 2020; Bernarto et al., 2020; Hyun et al., 2020; ; Purwanto, MayestiWijayanti, et al., 2019; Purwanto, Putri, et al., 2020). Further studies should investigate the concept of work satisfaction of lecturers by differentiating their constituents, as has been done in many studies. In the current study, overall work satisfaction, include aspects of fulfillment with both internal and physical aspects of work, is checked. Further research must be carried out It is necessary to clarify the concept of work satisfaction because as reported by (Hyun et al., 2020), there is heterogeneity between lecturers with respect to what they consider satisfactory and / or satisfying.

The implications and conclusions of these findings support research conducted in other places, such as research (Fayzhall et al., 2020; Asbari et al., 2020; Purwanto, Asbari, et al., 2020; Purwanto, Bernarto, et al., 2020; Purwanto, Wijayanti, et al., 2019) who show that lecturers prefer to work with university heads who exhibit transformational rather than transactional types of behavior. (However, this finding should not be surprising because actors acting as transformational leaders seem to maximize the autonomy that has long had it. Given that the challenge to education is more in the area of   how lecturers can better coordinate their work than how they can maximize their autonomy. The findings regarding the preferences of lecturers for transformational university heads seem to strengthen organizational structure and function. This study invites the world of education to pay attention to the inner realm of lecturers. This is suggestive In order to increase the level of satisfaction of lecturers in the workplace, university management needs to pay attention to factors related to all aspects of teaching and learning, especially those entitled "professional," as they refer to the characteristics of teaching as a vocation. The work perceptions of students from data collection are very significant in influencing their satisfaction. This implication must be recognized by top level decision-makers, such as government officials, and at a more local level, by supervisors and university heads. The more lecturers see their teaching work as their profession and the center of their lives, the more satisfied they will be. Moreover, to increase the general feeling of all lecturers, university heads need to be more aware of how strongly their role and behavior influence lecturers' perceptions of management and their work satisfaction. Through transformational leadership and participatory behavior, university heads can develop and cultivate positive feelings and attitudes of lecturers about their noble work. Understanding that teaching as a work that gives a sense of value and professional prestige will make lecturers consider it the center of their lives and thus increase their work satisfaction. Lecturer satisfaction from work is very important for good relations between lecturers and students, because satisfied lecturers will be more enthusiastic. invest time and energy in teaching their students.

CONCLUSION

The conclusion of this study is transformational leadership has a significant effect on lecturer work satisfaction, Transactional leadership has a significant effect on lecturer work satisfaction, Transformational leadership has a significant effect on lecturer performance, Transactional leadership has a significant effect on lecturer performance, Lecturer satisfaction has a significant effect on lecturer performance, Transformational leadership has a significant effect on lecturer performance. significant effect on lecturer performance through mediation of lecturer work satisfaction, Transactional leadership has a significant effect on lecturer performance through mediating work satisfaction of lecturers at Islamic university lecturers in Jakarta during the Covid-19 pandemic. This research may provide the first step in a research line linking university heads with faculty and with students. Further research on this can be achieved through collecting data from university heads about their leadership styles, decision-making approaches, demographics and how these variables affect the views of lecturers. about work

satisfaction and ultimately have a positive impact on students' competencies and their learning performance.

REFERENCES

1. Asbari, M., Pramono, R., Kotamena, F., Liem, J., sihite, O., Alamsyah, V., Imelda, D., Setiawan, S., and Purwanto, A. (2020). Studi Fenomenologi Work-Family Conflict dalam Kehidupan Guru Honorer Wanita. Edumaspul: Jurnal Pendidikan. 4(1): 180-201. Doi: https://doi.org/10.33487/edumaspul.v4i1.347.

2. Asbari, M., Santoso, P.B. and Purwanto, A. (2019). Influence of Leadership, Motivation, Competence, Commitment and Culture on ISO 9001:2015 Performance in Packaging Industry. Scholars Journal of Economics, Business and Management. 6(12): 577-582. DOI: http://doi.org/10.36347/sjebm.2019.v06i12.005.

3. Asbari, M., Wijayanti, L.M, Hyun, C.C., Purwanto, A. and Santoso, P.B. (2020). Effect of Tacit and Explicit Knowledge Sharing on Teacher Innovation Capability. Dinamika Pendidikan. 14(2): 47-59. Doi: https://doi.org/10.15294/dp.v14i2.22732.

4. Asbari, M., Wijayanti, L.M., Hyun, C.C., Purwanto, A., Santoso, P.B., Bernarto, I., Pramono, R., and Fayzhall, M. (2020). The Role of Knowledge Transfer and Organizational Learning toBuild Innovation Capability: Evidence from Indonesian Automotive Industry. International Journal of Control and Automation. 13(1): 19-322. Link: http://sersc.org/journals/index.php/IJCA/article/view/5732

5. Asbari. M., Nurhayati. W. and Purwanto, A. (2020). The effect of parenting style and genetic personality on children character development. Jurnal Penelitian dan Evaluasi Pendidikan. 23(2). DOI: https://dx.doi.org/10.21831/pep.v23i2.28151.

6. Hyun, C.C., Wijayanti, L.M., Asbari, M., Purwanto, A., Santoso, P.B., Wardani, I.G.K., Bernarto, I., and Pramono, R. (2020). Implementation of Contextual Teaching and Learning (CTL) to Improve the Concept and Practice of Love for Faith-Learning Integration. International Journal of Control and Automation. 13(1): 365-383. Link: http://sersc.org/journals/index.php/IJCA/article/view/5737

7. Purwanto, A. Asbari, M., Prameswari, M., Ramdan, M. and Setiawan, S.T. (2020). Dampak Kepemimpinan, Budaya Institusi dan Perilaku Kerja Inovatif Terhadap Kinerja Pegawai Puskesmas. Jurnal Ilmu Kesehatan Masyarakat. 9(1): 19-27. https://doi.org/10.33221/jikm.v9i01.473.

8. Purwanto, A., Asbari, M., and Santoso, P.B. (2019). Can ISO 38200:2018 Wood and Wood Based Product Chain of Custody Increase Business Competitiveness of Wood Industries in West Java? Jurnal49-57. DOI: https://doi.org/10.35130/jrimk.

9. Purwanto, A., Pramono, R., Bernarto, I., Asbari, M., Santoso, P., Saifuddin, M., Hyun, C.C., Wijayanti, L.M., Ong, F. and Kusumaningsih, W. (2020). Minat dan Hambatan Publikasi Artikel pada Jurnal Internasional Bereputasi: Studi Eksploratori pada Mahasiswa Doktoral di Sebuah Perguruan Tinggi Swasta di Jakarta. Edumaspul: Jurnal Pendidikan. 4(1): 219-228. Doi: https://doi.org/10.33487/edumaspul.v4i1.348.

10. Purwanto, A., Putri, R.S., Ahmad, A.H., Asbari, M., Bernarto, I., Santoso, P.B., and Sihite, O.B. (2020). The Effect of Implementation Integrated Management System ISO 9001, ISO 14001, ISO 22000 and ISO 45001 on Indonesian Food Industries Performance. TEST Engineering & Management. 82.14054 – 14069. Link: http://www.testmagzine.biz/index.php/testmagzine/article/view/3078

11. Purwanto, A., Wijayanti, L.M., Hyun, C.C. and Asbari, M. (2020). The Effects of Transformational, Transactional, Authentic, Authoritarian Leadership style Toward Lecture Performance of Private University in Jakarta. Dinasti International Journal of Digital Business Management (DIJDBM). 1(1): 29-42. DOI:https://doi.org/10.31933/dijdbm.v1i1.88.

12. Santoso, P.B., Purwanto, A. and Asbari, M. (2019). Influence of Implementation Chain of Custody Forest Management System FSC-STD-40-004 V3-0 to Business Performance of Paper Industries in Banten Indonesia. International Journal of Management and Humanities (IJMH). 4(4): 32-36. DOI: https://doi.org/10.35940/ijmh.C0442D0482.124419.

13. Asher, D., & Popper, M. (2019). Transformational leadership as a multilayer phenomenon: the "onion" model. The Learning Organization. doi:10.1108/tlo-06-2018-0105

14. Assyne N. (2019) Hard Competencies Satisfaction Levels for Software Engineers: A Unified Framework. In: Hyrynsalmi S., Suoranta M., Nguyen-Duc A., Tyrväinen P., Abrahamsson P. (eds) Software Business. ICSOB 2019. Lecture Notes in Business Information Processing, vol 370. Springer, Cham. https://doi.org/10.1007/978-3-030-33742-1_27

15. Attia, A. and Salama, I. (2018), "Knowledge management capability and supply chain management practices in the Saudi food industry", Business Process Management Journal, Vol. 24 No. 2, pp. 459-477. https://doi.org/10.1108/BPMJ-01-2017-0001

16. Boadu, F., Xie, Y., Du, Y.-F., & Dwomo-Fokuo, E. (2018). MNEs Subsidiary Training and Development and Firm Innovative Performance: The Moderating Effects of Tacit and Transactional leadership Received from Headquarters. Sustainability, 10(11), 4208. doi:10.3390/su10114208

17. Borges, R., Bernardi, M. and Petrin, R. (2019), "Cross-country findings on transformational leadership sharing: evidence from the Brazilian and Indonesian IT workers", Journal of Knowledge Management, Vol. 23 No. 4, pp. 742-762. https://doi.org/10.1108/JKM-04-2018-0234

18. Borrego, G., Morán, A. L., Palacio, R. R., Vizcaíno, A., & García, F. O. (2019). Towards a reduction in architectural knowledge vaporization during agile global software development. Information and Software Technology. doi:10.1016/j.infsof.2019.04.008

19. Boske, C. and Osanloo, A. (2015), "Conclusion – Preparing all School Community Leaders to Live their Work", Living the Work: Promoting Social Justice and Equity Work in Schools around the World (Advances in Educational Administration, Vol. 23), Emerald Group Publishing Limited, pp. 405-426. https://doi.org/10.1108/S1479-366020140000023032

20. Cairó Battistutti, O. & Bork, D. Cogn Process (2017) 18: 461. https://doi.org/10.1007/s10339-017-0825-6

21. Cantwell, J. and Zaman, S. (2018), "Connecting local and global technological knowledge sourcing", Competitiveness Review, Vol. 28 No. 3, pp. 277-294. https://doi.org/10.1108/CR-08-2017-0044

22. Castela, B., Ferreira, F., Ferreira, J. and Marques, C. (2018), "Assessing the teacher innovation capability of small- and medium-sized enterprises using a non-parametric and integrative approach", Management Decision, Vol. 56 No. 6, pp. 1365-1383. https://doi.org/10.1108/MD-02-2017-0156

23. Chang, C. and Lin, T. (2015), "The role of organizational culture in the knowledge management process", Journal of Knowledge Management, Vol. 19 No. 3, pp. 433-455. https://doi.org/10.1108/JKM-08-2014-0353

24. Chang, W.-J., Liao, S.-H., & Wu, T.-T. (2017). Relationships among organizational culture, knowledge sharing, and innovation capability: a

25. case of the automobile industry in Taiwan. Knowledge Management Research & Practice, 15(3), 471–490. doi:10.1057/s41275-016-0042-6

26. Chatterjee, A., Pereira, A. and Sarkar, B. (2018), "Learning transfer system inventory (LTSI) and knowledge creation in organizations", The Learning Organization, Vol. 25 No. 5, pp. 305-319. https://doi.org/10.1108/TLO-06-2016-0039

27. Che, T., Wu, Z., Wang, Y. and Yang, R. (2019), "Impacts of knowledge sourcing on teacher innovation: the moderating effect of information transparency", Journal of Knowledge Management, Vol. 23 No. 2, pp. 221-239. https://doi.org/10.1108/JKM-11-2017-0554

28. Che, T., Wu, Z., Wang, Y., & Yang, R. (2018). Impacts of knowledge sourcing on teacher innovation: the moderating effect of information transparency. Journal of Knowledge Management. doi:10.1108/jkm-11-2017-0554

29. Chen, H., Baptista Nunes, M., Ragsdell, G., & An, X. (2018). Extrinsic and intrinsic motivation for experience grounded transformational leadership sharing in Chinese software organisations. Journal of Knowledge Management, 22(2), 478–498. doi:10.1108/jkm-03-2017-0101

30. Chin, WW. (1998). The Partial Least Squares Approach to Structural Equation Modeling. Modern Methods for Business Research, In: G. A. Marcoulides, Ed., Lawrence Erlbaum Associates Publisher, New Jersey, pp. 295-336.

31. Cifariello, P., Ferragina, P., & Ponza, M. (2019). Wiser: A semantic approach for expert finding in academia based on entity linking. Information Systems, 82, 1–16. doi:10.1016/j.is.2018.12.003

32. Culot, G., Orzes, G., & Sartor, M. (2019). Integration and scale in the context of Industry 4.0: the evolving shapes of manufacturing value chains. IEEE Engineering Management Review, 1–1. doi:10.1109/emr.2019.2900652

33. Darwish, T. K., Zeng, J., Rezaei Zadeh, M., & Haak-Saheem, W. (2018). Organizational learning of Absorptive Capacity and Innovation: Does Leadership Matter? European Management Review. doi:10.1111/emre.12320

34. Deranek, K., McLeod, A., & Schmidt, E. (2017). ERP Simulation Effects on Knowledge and Attitudes of Experienced Users. Journal of Computer Information Systems, 1–11. doi:10.1080/08874417.2017.1373610

35. Durana, Kral, Stehel, Lazaroiu, & Sroka. (2019). Quality Culture of Manufacturing Enterprises: A Possible Way to Adaptation to Industry 4.0. Social Sciences, 8(4), 124. doi:10.3390/socsci8040124

36. Fan, C.S., Wei, X., and Zhang, J. (2017). Transformational leadership, Transactional leadership, and The Black/White Wage Gap. Wiley Online Library. 55(2):1032-1052. Doi: https://doi.org/10.1111/ecin.12406

37. Ferraris, A., Santoro, G. and Scuotto, V. (2018), "Dual relational embeddedness and knowledge transfer in European multinational corporations and subsidiaries", Journal of Knowledge Management, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/JKM-09-2017-0407

38. Ferreira, J., Mueller, J. and Papa, A. (2018), "Strategic knowledge management: theory, practice and future challenges", Journal of Knowledge Management, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/JKM-07-2018-0461

39. Gale, A. J., Duffey, M. A., Park-Gates, S., & Peek, P. F. (2017). Transformational leadership versus Transactional leadership: Practitioners' Perspectives on Interior Design Interns. Journal of Interior Design, 42(4), 45–63. doi:10.1111/joid.12105

40. Ganguly, A., Talukdar, A. and Chatterjee, D. (2019), "Evaluating the role of social capital, transformational leadership sharing, knowledge quality and reciprocity in determining teacher innovation capability of an organization", Journal of Knowledge Management, Vol. 23 No. 6, pp. 1105-1135. https://doi.org/10.1108/JKM-03-2018-0190

41. Ghozali, I. Structural Equation Modeling, Metode Alternatif dengan Partial Least Square (PLS), Edisi 4. Semarang: Badan Penerbit Universitas Diponegoro. 2014.

42. Gunasekaran, A., Subramanian, N., & Ngai, E. (2018). Quality Management in the 21st Century Enterprises: Research pathway towards Industry 4.0. International Journal of Production Economics. doi:10.1016/j.ijpe.2018.09.005

43. Guo, Y., Jasovska, P., Rammal, H. and Rose, E. (2018), "Global mobility of professionals and the transfer of transformational leadership in multinational service firms", Journal of Knowledge Management, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/JKM-09-2017-0399

44. Haamann, T., & Basten, D. (2018). The role of information technology in bridging the knowing-doing gap: an exploratory case study on knowledge application. Journal of Knowledge Management. doi:10.1108/jkm-01-2018-0030

45. Hair, J. F., Black. W. C., Babin. B. J.; and Anderson. R. E. (2010), Multivariate Data Analysis, 7th ed. New Jersey: Pearson Prentice Hall.

46. Hamada, T. (2019). Determinants of Decision-Makers' Attitudes toward Industry 4.0 Adaptation. Social Sciences, 8(5), 140. doi: 10.3390/socsci8050140

47. Hartley, J. (2018), "Ten propositions about public leadership", International Journal of Public Leadership, Vol. 14 No. 4, pp. 202-217. https://doi.org/10.1108/IJPL-09-2018-0048

48. Haseeb, M., Hussain, H. I., Ślusarczyk, B., & Jermsittiparsert, K. (2019). Industry 4.0: A Solution towards Technology Challenges of Sustainable Business Performance. Social Sciences, 8(5), 154. doi:10.3390/socsci8050154

49. Hodgins, M. and Dadich, A. (2017), "Positive emotion in knowledge creation", Journal of Health Organization and Management, Vol. 31 No. 2, pp. 162-174. https://doi.org/10.1108/JHOM-06-2016-0108

50. Holford, W.D. (2018). The future of human creative knowledge work within the digital economy. Futures. doi:10.1016/j.futures.2018.10.002

51. Holste, J. S., & Fields, D. (2010). Trust and transformational leadership sharing and use. Journal of Knowledge Management, 14(1), 128–140. doi:10.1108/13673271011015615

52. Honeycutt, Jerry. (2000). Knowledge Management Strategies: Strategi Manajemen Pengetahuan. Jakarta : PT. Alex Media Komputindo.

53. Hyun,C.C, Wijayanti,L.M., Asbari,M.,Purwanto,A. Santoso,P.B., IGAK Wardani, Bernarto,I., Pramono,R., (2020). Implementation of Contextual Teaching and Learning (CTL) toImprove the Concept and Practice of Love for Faith-Learning Integration, International Journal of Control and Automation.13(1).365-383. http://sersc.org/journals/index.php/IJCA/article/view/5737

54. Hong, J. (1999). Structuring for organizational learning.The Learning Organization, Vol. 6 No. 4, pp. 173-186. https://doi.org/10.1108/09696479910280631

55. Huang, F., Gardner, S. and Moayer, S. (2016), "Towards a framework for strategic knowledge management practice: Integrating soft and hard systems for competitive advantage", VINE Journal of Information and Knowledge Management Systems, Vol. 46 No. 4, pp. 492-507. https://doi.org/10.1108/VJIKMS-08-2015-0049

56. Huesig, S. and Endres, H. (2019), "Exploring the digital innovation process: The role of functionality for the adoption of innovation management software by innovation managers", European Journal of Innovation Management, Vol. 22 No. 2, pp. 302-314. https://doi.org/10.1108/EJIM-02-2018-0051

57. Hussain, S. T., Lei, S., Akram, T., Haider, M. J., Hussain, S. H., & Ali, M. (2018). Kurt Lewin's change model: A critical review of the role of leadership and teacher involvement in organizational change. Journal of Innovation &Knowledge, 3(3), 123–127. doi:10.1016/j.jik.2016.07.002

58. Imran, M., Ilyas, M., Aslam, U. and Fatima, T. (2018), "Knowledge processes and firm performance: the mediating effect of teacher creativity", Journal of Organizational Change Management, Vol. 31 No. 3, pp. 512-531. https://doi.org/10.1108/JOCM-10-2016-0202

59. Innocentius Bernarto, Diana Bachtiar, Niko Sudibjo, Ian Nurpatria Suryawan, Agus Purwanto, Masduki Asbari.(2020). Effect of Transformational Leadership, Perceived Organizational Support, Work Satisfaction Toward Life Satisfaction: Evidences from Indonesian Teachers. International Journal of Advanced Science and Technology.29(3). 5495 -5503

60. Jakhar, S. K., Mangla, S. K., Luthra, S., & Kusi-Sarpong, S. (2018). When stakeholder pressure drives the circular economy. Management Decision. doi:10.1108/md-09-2018-0990

61. Jaleel, S. and Verghis, A.M. (2015). Knowledge Creation in Constructivist Learning. Universal Journal of Educational Research 3(1): 8-12. doi: 10.13189/ujer.2015.030102.

62. Jiménez-Jiménez, D., & Sanz-Valle, R. (2011). Innovation, organizational learning, and performance. Journal of Business Research, 64(4), 408–417. doi:10.1016/j.jbusres.2010.09.010

63. Jou, M. Lin, Y. and Wu, D. (2016) Effect of a blended learning environment on student critical thinking and knowledge transformation, Interactive Learning Environments, 24:6, 1131-1147, DOI: 10.1080/10494820.2014.961485

64. Kasim, A., Ekinci, Y., Altinay, L. and Hussain, K.(2018)Impact of market orientation, organizational learning and market conditions on small and medium-size hospitality enterprises,Journal of Hospitality Marketing & Management,27:7,855-875,DOI: 10.1080/19368623.2018.1438955

65. Kawamura, K. (2016), "Kristine Marin Kawamura, PhD interviews Ikujiro Nonaka, PhD", Cross Cultural & Strategic Management, Vol. 23 No. 4, pp. 613-632. https://doi.org/10.1108/CCSM-06-2014-0056

66. Kenayathulla, H., Ahmad, N. and Idris, A. (2019), "Gaps between competence and importance of employability skills: evidence from Malaysia", Higher Education Evaluation and Development, Vol. 13 No. 2, pp. 97-112. https://doi.org/10.1108/HEED-08-2019-0039

67. Khoshsorour, A., Gilaninia, S. 2018. Kuwait Chapter of the Arabian. Journal of Business and Management Review; Kuwait City 7(3): 1-4. doi: 10.12816/0048627

68. Kim, N. and Shim, C. (2018). Social capital, knowledge sharing and innovation of small- and medium-sized enterprises in a tourism cluster. International Journal of Contemporary Hospitality Management, Vol. 30 No. 6, pp. 2417-2437. https://doi.org/10.1108/IJCHM-07-2016-0392

69. Klaeijsen, A., Vermeulen, M., & Martens, R. (2017). Teachers' Innovative Behaviour: The Importance of Basic Psychological Need Satisfaction, Intrinsic Motivation, and Occupational Self-Efficacy. Scandinavian Journal of Educational Research, 62(5), 769–782. doi:10.1080/00313831.2017.1306803

70. Laker, D. R., & Powell, J. L. (2011). The differences between hard and transformational leadership and their relative impact on training transfer. Human Resource Development Quarterly, 22(1), 111–122. doi:10.1002/hrdq.20063

71. Lecat, A., Beausaert, S. & Raemdonck, I. (2018). On the Relation Between Teachers' (In)formal Learning and Innovative Working Behavior: the Mediating Role of Employability. Vocations and Learning11, 529–554. doi:10.1007/s12186-018-9199-x

72. Lee, J.-C., Shiue, Y.-C., & Chen, C.-Y. (2016). Examining the impacts of organizational culture and top management support of knowledge sharing on the success of software process improvement. Computers in Human Behavior, 54, 462–474. doi:10.1016/j.chb.2015.08.030

73. Lee, Peter. (2019). Transformational leadership and University-Industry Technology Transfer. Research Handbook on Intellectual Property and Technology Transfer (2019, Forthcoming); UC Davis Legal Studies Research Paper Forthcoming. doi: http://dx.doi.org/10.2139/ssrn.3417933

74. Li, M., Liu, H. and Zhou, J. (2018), "G-SECI model-based knowledge creation for CoPS innovation: the role of grey knowledge", Journal of Knowledge Management, Vol. 22 No. 4, pp. 887-911. https://doi.org/10.1108/JKM-10-2016-0458

75. Li, Song, Wang, & Li. (2019). Intellectual Capital, Knowledge Sharing, and Innovation Performance: Evidence from the Chinese Construction Industry. Sustainability, 11(9), 2713. doi:10.3390/su11092713

76. Liebowitz, J. and Chen, Y. 2001. Developing knowledge-sharing proficiencies. Knowledge Management Review 3(6): 12-15. https://www.researchgate.net/publication/285908349_Developing_knowledge-sharing_proficiencies_Building_a_supportive_culture_for_knowledge-sharing

77. Lievre, P. and Tang, J. (2015), "SECI and inter-organizational and intercultural knowledge transfer: a case-study of controversies around a project of co-operation between France and China in the health sector", Journal of Knowledge Management, Vol. 19 No. 5, pp. 1069-1086. https://doi.org/10.1108/JKM-02-2015-0054

78. Lin, C.-P. (2006). To Share or Not to Share: Modeling Transformational leadership Sharing, Its Mediators and

Antecedents. Journal of Business Ethics, 70(4), 411–428. doi:10.1007/s10551-006-9119-0

79. Lin, H., Lee, Y. (2017). A Study of The Influence of Organizational learning on Teachers' Innovative Behavior and Work Engagement by A Cross-Level Examination. Eurasia Journal of Mathematics, Science and Technology Education, 13(7), 3463-3478. https://doi.org/10.12973/eurasia.2017.00738a

80. Lombardi, R. (2019). Knowledge transfer and organizational performance and business process: past, present and future researches. Business Process Management Journal, 25(1), 2–9. doi:10.1108/bpmj-02-2019-368

81. Lund, H. B., & Karlsen, A. (2019). The importance of vocational education institutions in manufacturing regions: adding content to a broad definition of regional innovation systems. Industry and Innovation, 1–20. doi:10.1080/13662716.2019.1616534

82. Ma, Q., Mayfield, M. and Mayfield, J. (2018), "Keep them on-board! How organizations can develop teacher embeddedness to increase teacher retention", Development and Learning in Organizations, Vol. 32 No. 4, pp. 5-9. https://doi.org/10.1108/DLO-11-2017-0094

83. Malik, A. (2019). Creating competitive advantage through source basic capital strategic humanity in the industrial age 4.0. International Research Journal of Advanced Engineering and Science 4(1): 209-215. www.irjaes.com/pdf/V4N1Y18-IRJAES/IRJAES-V4N1P195Y19.pdf

84. Manaf, H. A., Armstrong, S. J., Lawton, A., & Harvey, W. S. (2017). Managerial Transformational leadership, Individual Performance, and the Moderating Role of Teacher Personality. International Journal of Public Administration, 1–13. doi:10.1080/01900692.2017.1386676

85. Martínez-Costa, M., Jiménez-Jiménez, D., & Dine Rabeh, H. A. (2018). The effect of organisational learning on interorganisational collaborations in innovation: an empirical study in SMEs. Knowledge Management Research & Practice, 1–14. doi:10.1080/14778238.2018.1538601

86. Mohajan, Haradhan (2016): Sharing of Transformational leadership in Organizations: A Review. Published in: American Journal of Computer Science and Engineering, Vol. 3, No. 2 (1 July 2016): pp. 6-19. https://mpra.ub.uni-muenchen.de/id/eprint/82958

87. Moustaghfir, K. and Schiuma, G. (2013), "Knowledge, learning, and innovation: research and perspectives", Journal of Knowledge Management, Vol. 17 No. 4, pp. 495-510. https://doi

88. Muhammad, A., Ariyani, E.D., Sadikin, S., Sujana, D. (2019). Factor Analysis of the Companies Demands to the Polytechnic Graduates in Indonesia. Advanced Science Letters, Volume 25, Number 1, January 2019, pp. 117-121(5)DOI:https://doi.org/10.1166/asl.2019.13199

89. Muñoz, C.A., Mosey, S. and Binks, M.(2015)The tacit mystery: reconciling different approaches to transformational leadership.Knowledge Management Research & Practice,13:3,289-298,DOI: 10.1057/kmrp.2013.50

90. Muqowim (2012). Pengembangan Transformational leadership Guru. Yogyakarta: Pedagogia

91. Muscio, A., & Ciffolilli, A. (2019). What drives the capacity to integrate Industry 4.0 technologies? Evidence from European R&D projects. Economics of Innovation and New Technology, 1–15. doi:10.1080/10438599.2019.1597413

92. Muthuveloo, R., Shanmugam, N., & Teoh, A. P. (2017). The impact of transformational leadership management on organizational performance: Evidence from Malaysia. Asia Pacific Management Review, 22(4), 192–201. doi:10.1016/j.apmrv.2017.07.010

93. Naqshbandi, M., Tabche, I. and Choudhary, N. (2019), Managing open innovation: The roles of empowering leadership and teacher involvement climate, Management Decision, Vol. 57 No. 3, pp. 703-723. https://doi.org/10.1108/MD-07-2017-0660

94. Nonaka I., Hirose Nishihara A. (2018) Introduction to the Concepts and Frameworks of Knowledge-Creating Theory. In: Hirose Nishihara A., Matsunaga M., Nonaka I., Yokomichi K. (eds) Knowledge Creation in Community Development. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-319-57481-3_1

95. Nonaka I., Toyama R. (2015) The Knowledge-creating Theory Revisited: Knowledge Creation as a Synthesizing Process. In: Edwards J.S. (eds) The Essentials of KnowledgeManagement. OR Essentials Series. Palgrave Macmillan, London. https://doi.org/10.1057/9781137552105_4

96. Norwich, B., Koutsouris, G., Fujita, T., Ralph, T., Adlam, A. and Milton, F. (2016), "Exploring knowledge bridging and translation in lesson study using an inter-professional team", International Journal for Lesson and Learning Studies, Vol. 5 No. 3, pp. 180-195. https://doi.org/10.1108/IJLLS-02-2016-0006

97.), "The effects of collaborative cultures and knowledge sharing on organizational learning", Journal of Organizational Change Management, Vol. 31 No. 5, pp. 1138-1152. https://doi.org/10.1108/JOCM-10-2017-0385

98. Okuyama, R. (2017), "Importance of transformational leadership in incremental innovation: Implications from drug discovery cases", Journal of Strategy and Management, Vol. 10 No. 1, pp. 118-130. https://doi.org/10.1108/JSMA-02-2016-0016

99. Parida, V., Sjödin, D., & Reim, W. (2019). Reviewing Literature on Digitalization, Business Model Innovation, and Sustainable Industry: Past Achievements and Future Promises. Sustainability, 11(2), 391. doi:10.3390/su11020391

100. Pérez-Fuillerat, N., Solano-Ruiz, M. C., & Amezcua, M. (2018). Conocimiento tácito: características en la práctica enfermera. Gaceta Sanitaria. doi:10.1016/j.gaceta.2017.11.002

101. Pérez-Luño, A., Alegre, J., & Valle-Cabrera, R. (2018). The role of transformational leadership in connecting knowledge exchange and combination with innovation. Technology Analysis & Strategic Management, 1–13. doi:10.1080/09537325.2018.1492712

102. Pérez-Luño, A., Alegre, J., & Valle-Cabrera, R. (2018). The role of transformational leadership in connecting knowledge exchange and combination with innovation. Technology Analysis & Strategic Management, 1–13. doi:10.1080/09537325.2018.1492712

103. Polanyi, M. (1966). The Tacit dimension. New York: Doubleday & Co.

104. Prasarnphanich, P., Janz, B. and Patel, J. (2016), "Towards a better understanding of system analysts' transformational leadership: A mixed method approach", Information Technology & People, Vol. 29 No. 1, pp. 69-98. https://doi.org/10.1108/ITP-06-2014-0123

105. Qi, C. and Chau, P.Y.K.(2018)Will enterprise social networking systems promote knowledge management and organizational learning? An empirical study,Journal

of Organizational Computing and Electronic Commerce,28:1,31-57,DOI: 10.1080/10919392.2018.1407081

106. Rainsbury, E., Hodges, D., Burchell, N. & Lay, M. C. (2002). Ranking workplace competencies: Student and graduate perceptions. Asia-Pacific Journal of Cooperative Education, 3(2), 8-18. https://hdl.handle.net/10289/3219

107. Razmerita L., Phillips-Wren G., Jain L.C. (2016) Advances in Knowledge Management: An Overview. In: Razmerita L., Phillips-Wren G., Jain L. (eds) Innovations in Knowledge Management. Intelligent Systems Reference Library, vol 95. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-662-47827-1_1

108. Rothberg, H. and Erickson, G. (2017), "Big data systems: knowledge transfer or intelligence insights?", Journal of Knowledge Management, Vol. 21 No. 1, pp. 92-112. https://doi.org/10.1108/JKM-07-2015-0300

109. Santoro, G., Vrontis, D., Thrassou, A., & Dezi, L. (2017). The Internet of Things: Building a knowledge management system for open innovation and knowledge management capacity. Technological Forecasting and Social Change. doi:10.1016/j.techfore.2017.02.034

110. Sasaki, Y. (2017), "A note on systems intelligence in knowledge management", The Learning Organization, Vol. 24 No. 4, pp. 236-244. https://doi.org/10.1108/TLO-09-2016-0062

111. Schuckert, M., Kim, T., Paek, S. and Lee, G. (2018), "Motivate to innovate: How authentic and transformational leaders influence teachers' psychological capital and service innovation behavior", International Journal of Contemporary Hospitality Management, Vol. 30 No. 2, pp. 776-796. https://doi.org/10.1108/IJCHM-05-2016-0282

112. Serna M., E., Bachiller S., O., & Serna A., A. (2017). Knowledge meaning and management in requirements engineering. International Journal of Information Management, 37(3), 155–161. doi:10.1016/j.ijinfomgt.2017.01.005

113. Sousa, M. J., & Rocha, Á. (2019). Strategic Knowledge Management in the Digital Age. Journal of Business Research, 94, 223–226. doi:10.1016/j.jbusres.2018.10.016

114. Spraggon, M. and Bodolica, V. (2017), "Collective transformational leadership generation through play: Integrating socially distributed cognition and transactive memory systems", Management Decision, Vol. 55 No. 1, pp. 119-135. https://doi.org/10.1108/MD-05-2015-0173

115. Stachová, K., Papula, J., Stacho, Z., & Kohnová, L. (2019). External Partnerships in Teacher Education and Development as the Key to Facing Industry 4.0 Challenges. Sustainability, 11(2), 345. doi:10.3390/su11020345

116. Shao, Z., Feng, Y., & Hu, Q. (2017). Impact of top management leadership styles on ERP assimilation and the role of organizational learning. Information & Management, 54(7), 902–919. doi:10.1016/j.im.2017.01.005

117. Megheirkouni, M. (2017). Leadership styles and organizational learning in UK for-profit and non-profit sports organizations. International Journal of Organizational Analysis, Vol. 25 No. 4, pp. 596-612. https://doi.org/10.1108/IJOA-07-2016-1042

118. Prasad, B., & Junni, P. (2016). CEO transformational and transactional leadership and organizational innovation. Management Decision, 54(7), 1542–1568. doi:10.1108/md-11-2014-0651

119. Yunarsih, N., Rahayu, . S., Fatoni, ., Asra, ., Sustiyono, . A., Anwar, . T., Sri, . N. & Purwanto, . A. (2020) Develop Leadership Style Model for Nurse in Indonesian Hospital. Systematic Reviews in Pharmacy, 11 (8), 352-361. doi:10.31838/srp.2020.8.53

120. Slamet, M. U. A. G., Asdiana, ., Abdillah, . A., Abduloh, ., Fahlevi, . M., Ali, . R., Evanirosa, ., Mufid, . A., Purwanto, . A., Faricha, . F., Khairullah, .& Zumaro, .A. (2020) Islamic Leadership Model for Indonesian Millennial Teachers Performance in Pharmacy Schools. Systematic Reviews in Pharmacy, 11 (8), 374-382. doi:10.31838/srp.2020.8.55

121. Supriyadi, D., Syafitri, . L. N. H., Widodo, S. F. A., Wahidi, R., Arinta, . Y. N., Nabhan, . F., Mufid, . A., Purwanto, . A., Fahlevi, . M., Sunarsi, . D. & Cahyono, . Y. (2020) INNOVATION AND AUTHENTIC LEADERSHIP OF ISLAMIC UNIVERSITY LECTURES IN FACULTY PHARMACY FACULTY: WHAT IS THE ROLE OF PSYCHOLOGICAL CAPITAL?. Systematic Reviews in Pharmacy, 11 (8), 383-393. doi:10.31838/srp.2020.8.56

122. Noviantoro, R., Maskuroh, . N., Santoso, . B., abdi, . M. N., Fahlev, . M., Pramono, . R., Purwanto, . A., Purba, . J. T., Munthe, . A. P. & Juliana, . (2020) Did Quality Management System ISO 9001 Version 2015 Influence Business Performance? Evidence from Indonesian Hospitals. Systematic Reviews in Pharmacy, 11 (8), 499-507. doi:10.31838/srp.2020.8.71

123. Suryaman, M., Cahyono, . Y., Muliansyah, . D., Bustani, . O., Suryani, . P., Fahlevi, . M., Pramono, . R., Purwanto, . A., Purba, . J. T., Munthe, . A. P., Juliana, .& Harimurti, . S. M. (2020) COVID-19 PANDEMIC AND HOME ONLINE LEARNING SYSTEM: DOES IT AFFECT THE QUALITY OF PHARMACY SCHOOL LEARNING?. Systematic Reviews in Pharmacy, 11 (8), 524-530. doi:10.31838/srp.2020.8.74

124. Sutia, S., Riadi, . R., Fahlevi, . M., Istan, . M., Juhara, . S., Pramono, . R., Purwanto, . A., Purba, . J. T., Munthe, . A. P. & Juliana, . (2020) BENEFIT OF BENCHMARKING METHODS IN SEVERAL INDUSTRIES: A SYSTEMATIC LITERATURE REVIEW. Systematic Reviews in Pharmacy, 11 (8), 508-518. doi:10.31838/srp.2020.8.72

125. Suheny, . E., Arum, . M., Wandi, . D., Rahmat, . A., kurnianingsih, . A., Haerani, . A., Dasmaran, . V., Taryanto, ., Adha, . S. & Purwanto, . A. (2020) Develop Leadership Style Model for Indonesian SMEs Leaders During Covid-19 Pandemic. Systematic Reviews in Pharmacy, 11 (8), 576-586. doi:10.31838/srp.2020.8.82