

# Factors That Influence Job Performance of Agricultural Workers

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The professional growth of workers or leaders has remarkable worth in organisations wanting to improve the performance of the agriculture sector. Notably, there is a need to provide a knowledgeable and satisfying work environment to improve workers' performance. This study examines the role of knowledge and overload of workers in the agricultural sector. It also examines the effects of job knowledge and role overload on job performance while mediating by job satisfaction of the extension workers. The study is descriptive and quantitative in nature. Data has been gathered from employees of extension services firms in Thailand by using a self-administered questionnaire. 260 questionnaires were distributed to employees by using a simple random sampling technique. The smart PLS has been used for data analysis. The findings of the study show that all hypotheses were proven and the results of this investigation presented. Further discussion and limitations of the study are discussed at the end.

**Key words:** *Job performance, job knowledge, role overload, job satisfaction, agriculture extension workers of Thailand.*

## Introduction

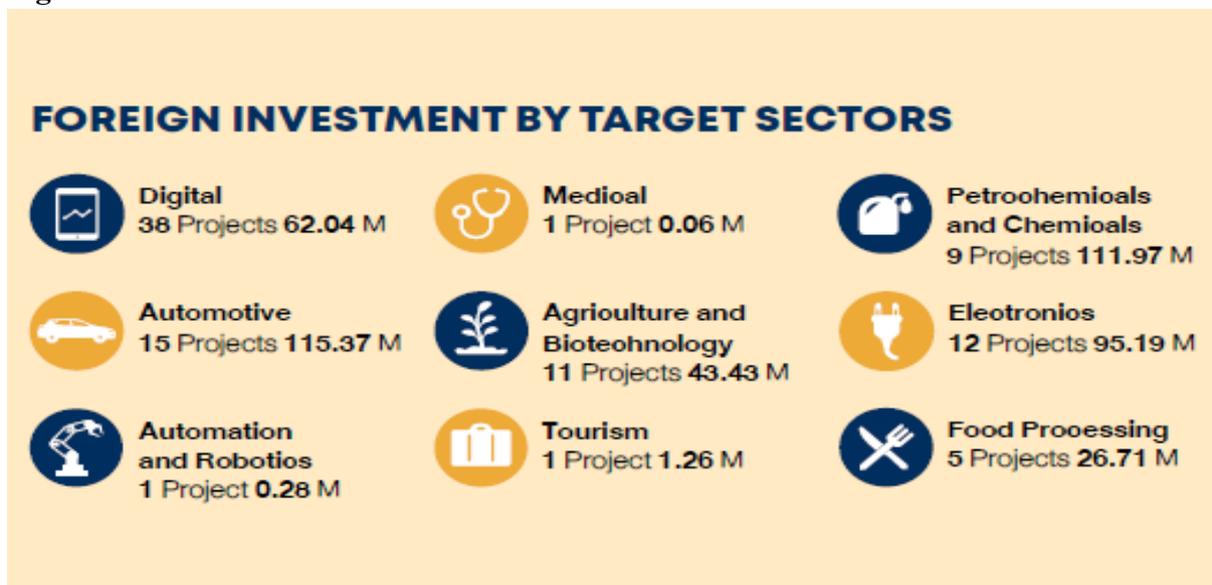
Thailand is an emerging economy in the ASEAN region and a hub for foreign investment. It is here that agriculture becomes an imperative part of the Thai economy. Agriculture of any country provides food to the people contributing to that economy (Jermsittiparsert, Sriyakul,

& Rodoonsong, 2013). It is the role of governments to provide policies and accompanying frameworks for increasing farmers' knowledge. Agricultural extension is a key part of agriculture development and using technology provides for the professional growth of agriculturalists, scholars, farmers and other stakeholders. Governments must take steps to improve agricultural extension workers' knowledge for guarding food securities so that income and famers' living standards are increased (Ilevbaoje, 2004; Mollel & Antipas, 1999).

Employees of agriculture extension organisations play an important role in promoting and expanding the agricultural sector. Because of this, there is need to recognise and develop the leadership skills of extension workers. Effective leaders' behaviours facilitate employees of any organisation to achieve the goals and objectives of that organisation, which, in turn, enhances and improves the performance of the workers (Dubrin, 2007; Khalil, Ismail, Suandi, & Silong, 2008). In this context, job performance is defined as additional role and task performance behaviours of employees: individuals perform well in organisations by focusing on these two aspects. (Luvanda, 2015; Rich, Lepine, & Crawford, 2010). Agriculture is a critical sector of Thai economy and is the fifth largest sector funded through foreign investment.

Figure 1 below shows the value of total investment and number of projects being carried out in agriculture in Thailand:

**Figure 1.**



Source: Thailand Board of Investment (2018)

Job performance can be improved through targeted initiatives and this study elaborates on the factors that influence the job performance of extension workers. The role of current and

emerging technologies to bring about individual growth and increased productivity in the agricultural sector is also considered.

Knowledge of the job is a crucial part of enhancing the performance of agricultural extension workers. Job knowledge can be defined as ‘the technical material, facts, and procedures required for doing the job’ and has a stronger effect on job performance (Hunter, 1983; Hunter & Schmidt, 1996).

Work - or role - overload has a negative relationship with job performance because it creates stress for employees and employees cannot perform better under such circumstances. Role overload is a stressor for employees because the demand of the job is exceedingly greater compared to employees’ time and energy (Duxbury, Lyons, & Higgins, 2008). Job satisfaction is defined in this study as the positive and negative feelings about the job (Armstrong, 2006). If employees have positive feelings about their job, he or she can perform better in their organisation. Job satisfaction improves the relationship between job knowledge and job performance. It also explains the relationship between the effects of role overload on job performance.

## Objectives

The objectives of the study were to:

1. Examine job knowledge of agriculture extension workers on their job performance;
2. Explore the effect of role overload of agricultural extension workers on their job performance;
3. Explain the relationship between job knowledge and job performance of agricultural extension workers in order to achieve job satisfaction; and
4. Examine the relationship between role overload and job performance of agricultural extension workers in order to achieve job satisfaction.

In light of the above, the following research questions were considered for the purposes of this study:

1. How does job knowledge have an effect on job performance of agricultural extension workers?
2. To what extent does role overload have an effect on job performance of agricultural extension workers?
3. Does job satisfaction facilitate a relationship between job knowledge and job performance of agricultural extension workers?
4. How does job satisfaction create a relationship between role overload and job performance of agricultural extension workers?

## Literature Review

### *Agriculture extension worker job performance*

Agricultural extension has different definitions and underpinning philosophies. Agricultural extension can be defined as ‘the entire set of organisations that support and facilitate people engaged in agricultural production to solve problems and to obtain information, skills, and technologies to improve their livelihoods and well-being’ (Birner et al., 2009). Previous research considered ‘extension’ as a means to only transfer knowledge related to farming and training related to modern technology and management of farmers. Presently, ‘agricultural extension’ takes into account marketing innovations to create a stronger relationship between marketers of agriculture and other agents (Luvanda, 2015).

Agricultural extension workers are the administrative leaders of the extension organisation. These leaders manage the partners and members of that organisation by planning, implementing and evaluating extension activities in rural areas and provide mechanisms for developing farmers’ knowledge. The skills and ability of leaders to create a desire for acquiring knowledge assists in enhancing the performance of agriculture extension workers (Chimanikire, Mut, Gadzirayi, Muzondo, & Mut, 2007).

However, the concept of ‘leaders’ is much broader. There are different definitions of leadership but no one definition focuses on a single perspective (Bass, 1985). Leadership can be defined as the influencing process between leader and follower to attain the goals. Additionally, leaders of agricultural extension organisations influence farmers to accept and employ the latest technologies, subsequently changing traditional processes of farming and, in turn, enhancing farmers’ decision making abilities (Okwoche & Asogwa, 2012).

These workers provide solutions to farmers’ problems and can be seen as advisory leaders for farmers. As such, their role, via expansion and advisory systems, centre around four noteworthy goals:

1. innovation transfer, particularly for main sustenance crops;
2. human capital advancement, particularly the specialised and board aptitudes and learning needed to expand farmers’ well-being;
3. building social capital, or enticing farmers into agriculture producer groups or farm associations to undertake explicit practices that extend from providing high-yielding harvests to urban markets to overseeing watersheds; and

4. to provide farmers with the knowledge to use natural assets for creating sustainability (Samuel, 2001).

Clearly, these leaders improve farmers' productivity. Extension workers need the skill, knowledge, and technological understanding, skillset and ability to improve farmers' performance. Developing the knowledge and skillset of extension workers improves their performance to better serve their (farmer) clients (Armstrong, 2006; Liles & Mustian, 2004).

### ***Job knowledge***

Knowledge is one essential criteria of agricultural extension and agricultural extension workers must have deep knowledge, skills and competencies to affect change. Study findings show that agriculture extension workers improve performance if they have knowledge about the technology related to their job. In order for the transfer of knowledge to take place, extension workers must first understand human needs. Consequently, extension workers/leaders can easily transfer, via the latest technology, knowledge to the farmers (Tiraieyari, 2009). According to Liles and Mustian (2004), extension workers must have technical knowledge and skill.

Job knowledge can be increased via training and differentiated learning modules. In this context, knowledge is a significant characteristic of behaviour and affects the covert and overt behaviour of individuals; whereas training is the ordinarily utilised technique to accomplish an immediate effect on the learning and aptitudes of customers (Yadav, Sood, Thakur, & Choudhary, 2013). Another study conducted by Luvanda (2015), shows that job performance is influenced positively and significantly by job knowledge. The higher the job knowledge indicated, the higher the job performance. Conversely, less knowledge about the job means diminished job performance. Further findings indicate that public sector job knowledge is greater than the private sector, suggesting a significant inequity about the role of knowledge. Diminished knowledge of agricultural extension workers depends on job training because the private sector does not provide frequent training to extension workers. This is one of the main causes of low job performance compared to public sector agriculture extension workers.

### ***Role overload***

Role overload creates pressure on employees and stems from single or numerous jobs that are 'so incredible that time and energy effects are inadequate to satisfy the prerequisites of the different jobs as per the general predisposition of self or others' (Duxbury et al., 2008). Most research in the area defines job overload as 'space explicit stress' where work aspirations compete with work-job overload and family needs (Bowling, Alarcon, Bragg, & Hartman,

2015; Elloy & Smith, 2003). Role overload creates negative outcomes for individuals and for organisations (Bowling et al., 2015). Currently, there is little research available on the causes of role overload of agricultural extension workers, thus suggesting the need for further examination.

Additionally, studies show that when employees work longer hours, undertake greater shifts and are faced with tougher workplace challenges, job related stress is created (Bowling et al., 2015; Karimi, Omar, Alipour, & Karimi, 2014; Malik et al., 2013). In this way, role overload creates stress that negatively affects extension workers' performance. Agricultural extension workers deal with farmers' low literacy and this creates many challenges, especially when new technologies are involved. Rural farmers mostly follow traditional farming practices and do not accept change easily, thus causing stress for agriculture extension workers.

### ***Job satisfaction***

Armstrong (2006) defines job satisfaction 'as attitudes and feelings employees have towards their work. Positive and good attitudes regarding the job show job satisfaction. Negative and bad attitudes about the job indicate job dissatisfaction.' Similarly, Chaturvedi and Raavi (2019) see job satisfaction as a significant issue where activities are taken and projects are started to satisfy it. The elements that impact employee satisfaction are (i) the level of pay, (ii) job advancement, (iii) working conditions, (iv) outstanding tasks, (v) minimal levels of anxiety, (vi) regard from colleagues, (vii) positive relationship with managers, and (viii) monetary prizes. By embedding these element organisation can achieve employee satisfaction, and subsequently improve collegiality.

Having dissatisfied employees means that the organisation faces higher absenteeism, greater staff turnover, diminished efficiency, intentional mistakes and minimal enthusiasm for completing tasks. Any sort of disappointment identified with organisational or individual life affects work job performance (Chaturvedi & Raavi, 2019). Job satisfaction is closely related to how the organisation performs and is underpinned by employee satisfaction. The behavioural and social sciences show that job satisfaction enhances job performance (Duxbury et al., 2008). Managers have greater impact when job satisfaction is high and allows them to achieve greater productivity and output with their employees.

Roznowski and Hulin (1992) propose that job satisfaction data is the most valuable data to have about a worker. This data allows organisations to work with individuals to achieve their potential and improves if the organisation provides them extrinsic and intrinsic benefits. If better training services are provided to workers, greater satisfaction will be achieved and clear growth in performance will be evident. According to Kaya (1995), dedication or responsibility is a critical aspect of job satisfaction. Additionally, job satisfaction can be seen

as the sum of all negative and positive characteristics: physical and collegial working situations, the power they have, the use of expertise, the degree of progress they have made. Managers can motivate employees and this very act retains them for a longer period by gaining successful benefits and by providing better professional development courses. The study goes on to elaborate that in the early stages, employee morale is high, and then, after some time, and without the commitment of the organisation to training, morale diminishes and employee performance is affected. (Onu, Madukwe, & Agwu, 2005).

### ***Research framework and hypothesis***

***H1:*** That a significant relationship between job knowledge and job satisfaction exists;

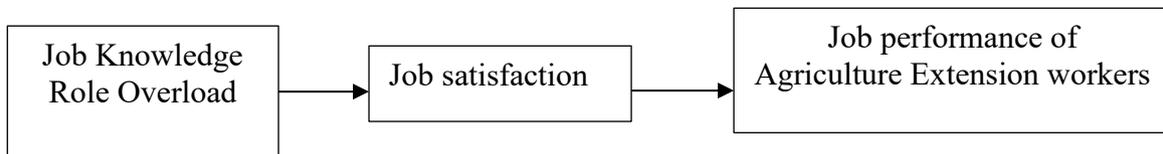
***H2:*** That role overload has a significant relationship with job satisfaction of extension workers;

***H3:*** That job knowledge has a significant relationship with the job performance of extension workers;

***H4:*** That role overload has a significant relationship with job performance of extension workers;

***H5:*** That a significant relationship between job knowledge and job performance of extension workers affects job satisfaction and;

***H6:*** That role overload has a significant relationship with job performance of extension workers while conciliating by job satisfaction.



### **Methodology**

Agricultural extension services have attracted greater scrutiny in both the practical and academic domains. This study investigates the influence of job factors on the performance of extension workers. The study also considered the role of job satisfaction to determine its role in improving job performance.

The subjects of the study are the employees working in companies providing extension services to Thai farmers. Agricultural extension service agents were selected because they influence the performance of agricultural extension. Different methodologies for sample size such as Krejcie and Morgan (1970), Barlett, Kotrlík, and Higgins (2001) and Thumb Rule (Hair et al., 2010) are applied. This study follows the Thumb Rule (Hair et al., 2010) to determine the sample size. The total number of questions in the questionnaire were multiplied

by ten and contained twenty-six questions. As a result the sample size was 260 respondents. According to Oke, Ogunsami, and Ogunlana (2012), the appropriate sample size for the SEM should be 200 to 400.

Data was collected using simple random sampling. All questionnaires were distributed to employees of extension services companies. The measuring instruments were adapted from previous studies and the details of which are as follows: a six item scale adapted to measure job satisfaction (Spector, 1997), role overload was measured by a seven items scale, eight items were used to measure job knowledge and, finally, five items were used to measure job performance of extension service workers (Luvanda, 2015).

The next section of the study presents the results in detail.

## Findings

**Table 1:** Confirmatory Factor Analysis

Constructs	Items	Loadings	Alpha	CR	AVE
Job Knowledge	JK1	0.788	0.850	0.887	0.530
	JK2	0.775			
	JK4	0.58			
	JK5	0.728			
	JK6	0.724			
	JK7	0.711			
	JK8	0.769			
	Job Performance	JP1			
JP2		0.749			
JP3		0.787			
JP4		0.777			
JP5		0.691			
Job Satisfaction	JS1	0.874	0.851	0.896	0.637
	JS2	0.622			
	JS3	0.728			
	JS4	0.889			
	JS5	0.845			
Role Overload	RO1	0.134	0.808	0.864	0.503
	RO2	0.744			
	RO3	0.802			
	RO4	0.826			
	RO5	0.733			

	RO6	0.803			
	RO7	0.662			

Prior to testing the hypotheses, specific assumptions needed to be addressed, one of which was the reliability and validity of scale. To assess this, a confirmatory factor analysis was performed.

In this instance, the values for the Cronbach's Alpha should be greater than 0.7 and is the internal consistency of a particular measure. As per the findings presented in Table, the values for Alpha for job knowledge, performance satisfaction and role overload are 0.850, 0.806, 0.851 and 0.808 respectively.

Convergent validity is determined with the values of factor loadings, composite reliability and AVE. The values for factor loadings of the each item should be greater than 0.5. It asserts that all items will be deleted whose value is less than 0.5. As shown in Table 1, all values are greater than 0.5 and some items were also deleted as they did not satisfying the criteria.

With regard to CV, values for CR and AVE should be greater than 0.8 and 0.5 respectively. As displayed in Table 1 above, CR values for job knowledge, performance satisfaction and role overload are 0.887, 0.865, 0.896 and 0.864 respectively. Moreover the values of AVE for variables, namely 0.530, 0.563, 0.637 and 0.503 job knowledge, performance satisfaction and role overload correspond. All three criteria for convergent validity has been satisfied meaning that the scale is valid and allowed for the next test.

**Table 2:** Discriminant Validity

	<b>JK</b>	<b>JP</b>	<b>JS</b>	<b>RO</b>
JK	0.728			
JP	0.739	0.750		
JS	0.700	0.754	0.798	
RO	0.584	0.647	0.718	0.709

A Fornell & Larckers Table has been used to determine the discriminant validity of the scale. The square root of AVE with a particular variable should be greater than the others in that same column or diagonal. As per Table 2, all values satisfy the criteria which affirms the discriminant validity of the scale.

**Table 3:** Heterotrait-Monotrait Correlation Ratio

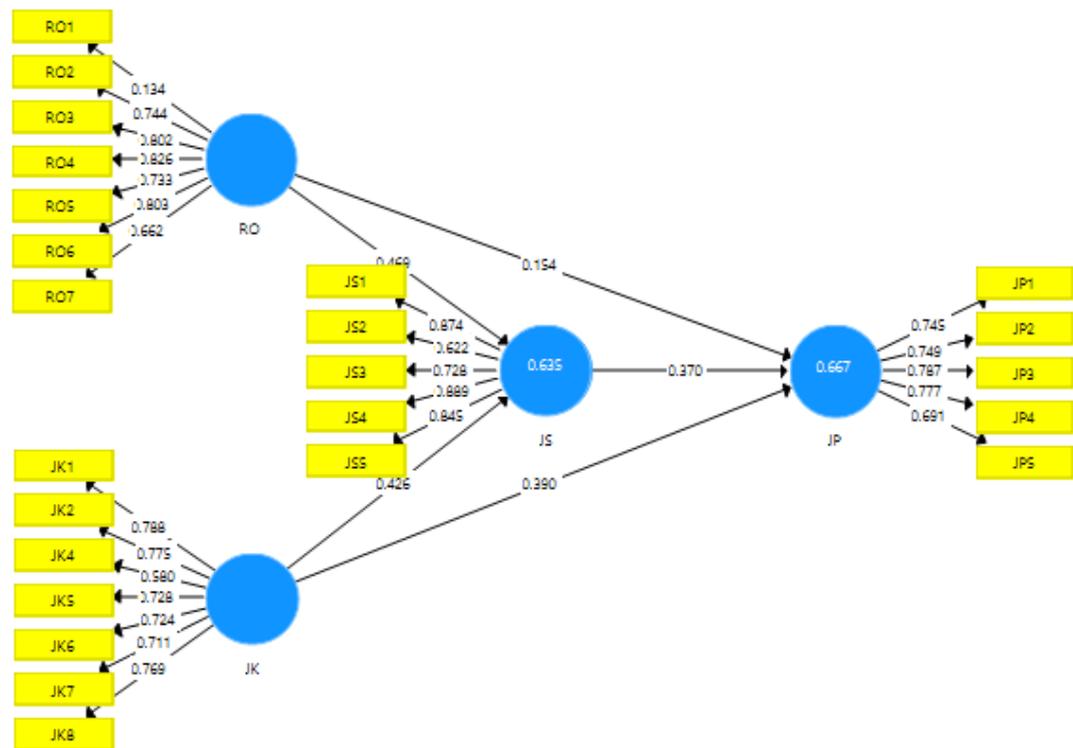
	<b>JK</b>	<b>JP</b>	<b>JS</b>	<b>RO</b>
JK				
JP	0.881			

JS	0.826	0.887		
RO	0.684	0.786	0.843	

Table 3 above depicts the results for the HTMT ratio which is the latest technique for assessing the discriminant validity. The technique requires all values for correlation to be less than 0.85 or 0.90. The optimistic and most widely used criterion is 0.85, however the other value 0.90 can also be applied. The Table obviously shows that all values of correlation are less than 0.90 and establish the discriminant validity.

Figure 3 below illustrates the output of the confirmatory factor analysis:

**Figure 3.** Structural Equation Modelling



**Table 4:** Direct Effects

Relationships	Beta	SD	t value	p value
JK -> JP	0.390	0.044	8.821	p<0.05
JK -> JS	0.426	0.04	10.649	p<0.05

JS -> JP	0.370	0.052	7.059	p<0.05
RO -> JP	0.154	0.044	3.52	p<0.05
RO -> JS	0.469	0.038	12.461	p<0.05

Table 4 above shows the results of Structural Equation Modelling. It is applied to test the hypotheses made in this study and confirms that the association between JK and JS is considerably positive and valued at 0.426. This means that a slight change in knowledge will increase job satisfaction and explains the 43% variance in job satisfaction. It establishes that knowledge is a resource and when employees' resources increase, they tend to be more satisfied with their work and perform better compared to employees with less knowledge.

Additionally, Table 4 shows a significant link between role overload and job satisfaction. Generally, a greater role overload results in work-life conflict which, in turn, reduces job satisfaction. However, in the present scenario minimal role overload is seen to enhance job satisfaction. Table 4 indicates an association valued at 0.469 and means that less role overload has an explained 47% variance in job satisfaction.

Results also confirmed a significant relationship between less role overload and job performance, a positive relationship valued at 0.154. In this respect, total variance explained in job performance is low. More importantly, the results revealed a significant positive association between job-related knowledge and job performance. The explained variance in job performance by knowledge is valued at 0.390. Evidently, a slight change in job related knowledge can potentially increase job performance by approximately 39%. Knowledge is a resource and personal asset and, if greater opportunities exists to acquire knowledge, the likelihood of increased job performance exists.

Similarly, a relationship between job satisfaction and performance exists. Generally speaking, satisfied employees tend to be more job oriented and strive hard to complete their jobs in a better way compared to their colleagues. Similar results are presented in the study and show that when satisfied, tend to be more performance oriented.

**Table 5:** Specific Indirect Effects

Relationships	Beta	SD	t value	p value
JK -> JS -> JP	0.158	0.028	5.732	p<0.05
RO -> JS -> JP	0.174	0.028	6.231	p<0.05

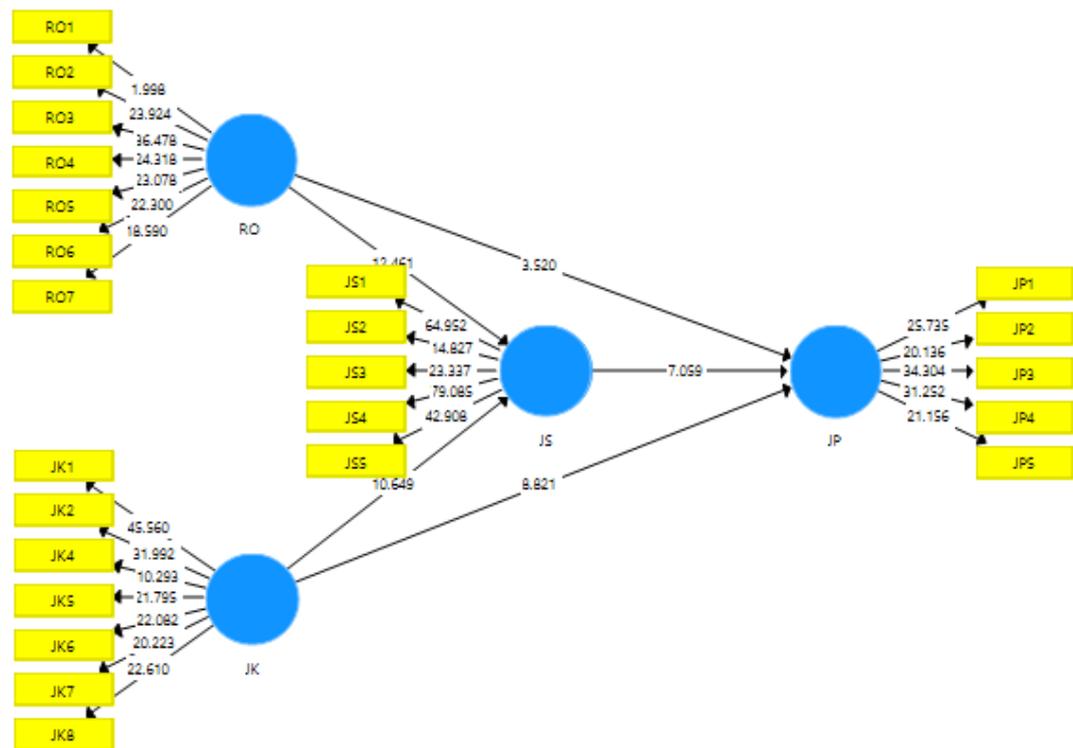
While Table 4 illustrates relationships between independent, mediator and dependent variables, Table 5 presents results for the mediation analysis performed in this study.

In light of the data, job satisfaction significantly mediates between job knowledge and job performance and is valued at 0.158. Overall it is significant and positive. If an employee possesses better job knowledge he or she will perform well. As a result, employees' work-life-balance is maintained, positively influencing their job performance.

All the hypotheses have been accepted and supported by the study results.

Figure 4 below shows the output of the Structural Equation Modelling for the present study.

**Figure 4.**



## Discussion

Agricultural extension workers play a major role in planning, implementing and evaluating any new initiatives in the agricultural sector. They are the leaders and advocates of farmers. So, the knowledge base of extension workers must be improved and the stress of role overload addressed. The current study examines how extension workers can improve job performance by increasing the job knowledge of workers and, subsequently, reducing role

overload. This study further examined the relationship between job satisfaction, job knowledge and role overload and its effects on job performance. Findings show that job knowledge has a significant and positive relationship with job performance. Knowledge underpins and enhances job performance of extension workers. An extension program means access to better knowledge, technology and training facilities. In this way, the first hypothesis is proven and shows that job knowledge significantly improves the job performance. Previous studies support this hypothesis (Luvanda, 2015; Tiraieyari, 2009; Yadav et al., 2013). Role overload is when employees do not feel positive about the organisation and feel overburdened because time and energy are lacking or not provided.

The results of the second hypothesis demonstrate that role overload affects job performance negatively when employees feel intensely overburdened by the organisation causing performance to diminish. (Bowling et al., 2015; Karimi et al., 2014; Laiprakobsup, 2019; Malik et al., 2013).

With regard to the third and fourth hypotheses, job satisfaction creates positive and negative employee dispositions. It is clear that having knowledge about the job is highly instrumental in creating job satisfaction. This is enhanced when organisations provide training facilities for developing employee skills and competencies. Here, the role played by technology cannot be overlooked as this also enhances job satisfaction. On the other hand, when employees' job responsibilities demand extra time and energy, extension workers are overburdened, ultimately affecting performance growth and job completion.

### ***Limitations and Future Direction***

The researchers have striven to undertake a comprehensive examination and are aware that the results are still far from perfect. Hence, this study has limitations. Nonetheless, this study assists extension leaders to gain greater knowledge about new innovations through differentiated training modules. Developing the knowledge, skills and capabilities of extension leaders is crucial for the development of this industry. Still, there is a strong need for leadership development as presented in this study (Gill, Nisar, Azeem, & Nadeem, 2017). At this point in time, data collection was most suitable via questionnaires; whereas further studies will use in-depth respondent interviews to better inform results and frame recommendations. Due to limited time and resources, this study needed to be cross-sectoral in nature, allowing other researchers to collect data simultaneously. It is recommended that future research should focus on a comparative analysis of developing and developed countries.

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