The Application of Stimulus-Organism-Response (SOR) Theory for Studying Workforce Contributions in the Pineapple Factories in Chiang Rai

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Abstract

In this study the SOR (Stimulus-Organism-Response) theory, that is typically used in consumer behaviors, is employed for workforce contribution study of organizational performance, which exploits the theories of job demand-resources (JD-R), motivation and trust as stimuli. The conceptualized model was empirically tested using the phu-lae and nang-lae pineapple manufacturers and traders in the Thasud, Ban Du and Nang Lae districts of Chiang Rai. The surveys were conducted in September-October 2019, which is the low-production season. The structural equation modeling (SEM) analysis shows perfect fits, evidenced with Normed Fit Index (NFI), Comparative Fit Index (CFI), Tucker Lewis Index all closer to 1.0, and RMSEA at 0.051, and the livelihood minimization shows absolute model fit, at p = 0.282, at $\chi^2/2$ = 1.251, much below the threshold number, 5.

Keywords: Job Resources-Demand theory; Motivation; Stimuli-Organism-Response.

Introduction

Thailand is an export-oriented emerging economy, with the majority of the GDP contribution coming from production, contributing 34 per cents of the GDP, while the service sectors occupying around 44 per cents, and agricultural industry at 13 per cents of GDP (National Economic and Social Development Board of Thailand, 2015).

Among the agricultural sectors, pineapple is considered as an important economic crop in Thailand, generating incomes for the communities and the nation (Hasachoo & Kalaya, 2013). Thailand has exported fresh pineapples to China at 81%, Laos 10%, and Singapore 5%. China imports them through Guangdong Province (by sea) and Yunnan Province (by land) as reported from the office of agricultural economics (Sutichaiya, 2018). Two unique pineapple species, Nang Lae and Phu Lae (mini-pineapples), are mostly planted in Chiang Rai. Phu Lae is also registered as a Geographical Indication (GI) of Chiang Rai Province, Thailand (Thu & Huynh). Phu Lae is exported as fresh-cut and mainly to China where such business is done by manufacturers collaborated with traders. Manufacturers manage all the processes needed to be accomplished for the finished goods including

ordering and receiving chopped mini-pineapples, managing production process and dealing with customers. Traders need to follow up the requirements provided by the manufacturers. Pineapple workers perform a series of works, such as peeling, packing, cooling down, quality checking, and final packing.

For the fact of a number of customer requirement variations, and the uncertainty caused by traders, it is important employees are motivated, and their productions and functions are aligned to objectives in order to meet the competitive edge and performance requirement.

In view of the fact that the pineapple industry is still extensively labor-intensive in Thailand, it is important to study how the workers perceive their job characteristics, in terms of job resources and demands, trust and motivation, and how these job characteristics influence their loyalty, satisfaction, commitment, in-role and extra role behaviors, where these can lead to the better performance of the organization. Therefore, this research aims to develop a model that is capable to organize a set of relevant JD-R (Job Demand-Resources) factors, and motivation and trust which can be absorbed into theory of planned behavior (TPB), as a systematic ordered structure, in order to let the company has the systematic concept to exploit opportunities, especially in efforts to improve organizational performance.

This paper extends the early phases of the researchers' efforts in an attempt to structuralize the employee-level factors to explain organizational performances, and the SPACE competitiveness assessment to suggest possible strategic postures for improving return on investment and competitive advantages. The previous efforts demonstrate that JD-R are important perceived behavioral control factors at the job- and operational level, rather than staying at the individual level which involves attitude and personal norms. In addition, intention has very low degree of ability to explain behaviors and performances, and thus is exempted in this research. Instead, a Stimulus-Organism-Response (S-O-R) model is adapted.

Literature Review

Based on the introductory background, this research is theoretically based on the Stimulus-Organism-Response (S-O-R) theory of consumer behavior (Tan, 2017), which is adapted for studying workforce behaviors. The adapted S-O-R model is shown in Fig.1, which has five hypothetical structures this literature will logically present.

Note that the stimulating factors, consisting of JD-R, trust and motivation, do reflect some of the essential characteristic of theory of Planned Behavior (TPB), noted as follows: When the employees perceive that they are equipped sufficiently with the resources that match the demand of the job, they would feel more satisfied and show higher level of job commitment, and further also can induce in-role and extra-role behaviors to contribute to jobs, and be loyal to the company (Srisuwan and Tan, 2015).

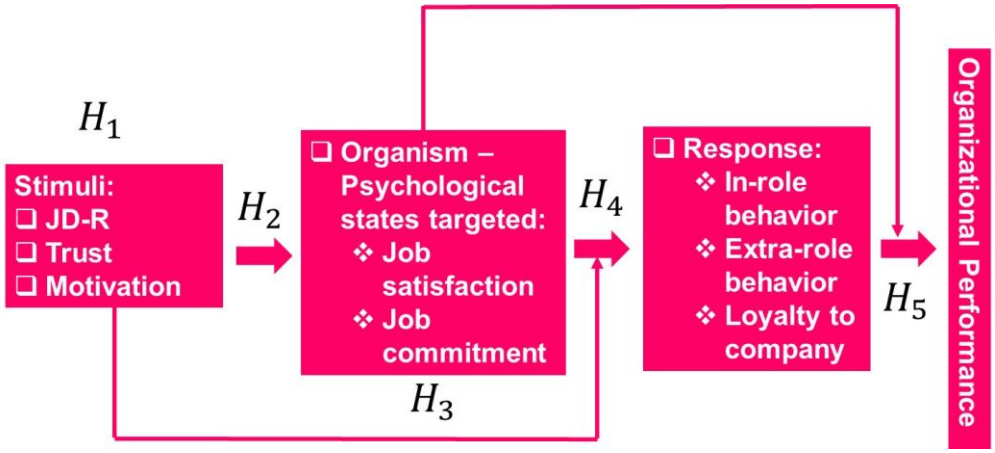

Fig. 1: An Extended S-O-R Conceptual Model

Descriptions of the hypothesis structure:

H1: There is a positive interrelationship of the stimuli factors, consisting of JD-R, trust and motivation.

H2: The stimuli positively influence the organism or psychological states of the employees that are manifested in job satisfaction and job commitment.

H3: There is a positive interrelationship of the organism or psychological states namely between job satisfaction and job commitment.

H4: Both stimuli and organism positively influence the response in terms of combined in-role and extra-role behaviors, and loyalty to company.

H5: Both stimuli and response positively influence organizational performance.

The following sections provide the deductive logics supporting the derivation of H1 to H5.

The Stimuli

Theory of JD-R was comprehensively discussed in Bakker and Demerouti (2014). Employees can exploit resources reactively and proactively. Reactively, they simply accept the resources as the given that makes them satisfied and show commitment. Proactively, engaged workers can mobilize their own job resources to stay engaged, that is: JD-R not only stimulates the employees to trust, and to motivate them to perform better, but also to have in-role and extra-role work engagement influences, including loyalty, resulting in the hypothesis structure integrating *H1* to *H4*.

The partial contribution of *H4*, due to JD-R, is also supported empirically in that the different nature of job resources and demand can lead to different level of impact on both in-role and extra-role work engagement behaviors. Examples of job resources can include, for instance, social support (Karatepe and Olusegun, 2009), supervisory support and managerial

couching, which induce trust and confidences (Kalkavan and Katrinli, 2014), and also can include personal resources (Brown, William and Slocum, 1998) as manifested in TPB.

Apart from JD-R and trust, as stated above, employee motivation is an important stimulating factor in influencing the organismic or psychological state of employees. It is reported that those who are more motivated, intrinsically and extrinsically, with their jobs, are more satisfied with their organizations and are committed (see *H2*), partly contributable to the intrinsic job interests (Ryan and Edward, 2000). Also, with trust, the employees also show higher level of motivation, leading to more job satisfaction, job commitment, loyalty to company, and in-role and extra-role behavioral efforts (Srirattanaprasit and Tan, 2015).

Organism or Psychological States

Job commitment and job satisfaction are the two states of organism considered in this study. Job satisfaction is commonly defined as "the pleasurable or positive emotional state resulting from the appraisal of one's job or job experience" (Locke, 1976), which can be related to also meeting certain expectation such as expectation of job resources and demand (JD-R), and the trust associated with the relationship with supervisors and colleagues. This supports the *H2* logic demonstrated.

In addition, when employees are more satisfied with their jobs, they will show more commitment, and also contributes extra effort on jobs, supporting the internal states structure stated in *H3* and the O→ R structure of *H4*. In other words, satisfied employees would form stronger belief in their job roles (demonstrated in job commitment, as stated in hypothesis *H3*) and show a more willingness to exert considerable effort (both in-role and extra-role behaviors), and a strong desire to maintain membership (loyalty to company) as shown in the stated hypothesis *H4*.

Responses and Organizational Performance

Two important responses are loyalty to company and in-role and extra-role behaviors. The latter behavioral terms are coined in *Organizational Citizenship Behavior* (OCB) term. OCB was first introduced by Dennis Organ and his colleagues in early 1980s, and is defined as "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promote the effective functioning of the organization" (Organ, 1988), namely the performances of the organization. This logic extends the previous hypothetical structures to *H5*, as shown in the theoretical S-O-R model in Fig. 1.

In other words, organizational performance is attributable to how an employee behaves, both in-role and extra-role, and also to factors such as the organism or internal psychological states, as job commitment and job satisfaction, which further supports the hypothetical logic *H5*. In a similar vein, employees' organizational citizenship behavior (OCB) supports the effective functioning of an organization, especially the extra-role plays significant role, as managers cannot anticipate all scenarios in the workplaces, and thus, magnifying the extra-role of the employee help and proactiveness (Chen & Brian, 2018).

Now that the logical and deductive logics supported by the available literature are discussed, the next section would present the research method.

Method

Questionnaire Design

The questionnaires were designed based on the empirically proven knowledge and theories of JD-R (Bakker and Demerouti, 2014), TPB (Ajzen, 1991), and adapting the measurement instruments of job satisfaction, job commitment, employees' behaviors, and organizational performance (Srirattanaprasit and Tan, 2015; Organ, 1988; Tan, 2016) in the theoretical context of *stimulus-organism-response* (SOR). Validity and reliability of the constructs are established by means of aligning the constructs to the context of the theories i.e., TPB, JD-R, psychological states targeted, behaviors and organizational performance, the definition of the construct, with applicability to the factory context of this study. Pilot tests were conducted to ensure that the measurement is fit for use, by combining the consensus and insights of the subject experts in both research methodology and HRM discipline, as well as by incorporating the views and opinions of the managers from both the manufacturers and the traders.

A consistent response pattern of the informants provides a basis for validity and reliability of the constructs. The validity and reliability assessments of the measurement instrument are also discussed in the "data analysis and result" section.

Data Collection

To test the hypotheses, a sample was selected from the representative factory labor workforces. Understanding them is important as the factory operations are labor-intensive. For reliability in responses, only long-term Thai workforces were engaged. This research purposively excludes the part-timers and short-term contractual workers as they are mostly non-Thai, with deficiency in English and Thai, and translating the questionnaire statements to them will significantly weaken the reliability and validity. This exclusion is also agreed upon by the managers of both the manufacturers and traders.

Specifically, among from the target population of nine manufacturers and twenty traders, the sampling covered five manufacturers and seven traders and 96 valid responses are collected. Table 1 presents the response rate in view of the current manufacturers and traders in the three targeted locations. The choice was made conveniently and aimed to have a uniform share between manufacturers and traders located in only Mueang Chiang Rai under the three sub-districts: Thasud, Ban Du and Nang Lae.

Table 1: Population and the Participants

Targeted Area	**Thasud**		**Ban Du**		**Nang Lae**		**Total**
	M	*T*	*M*	*T*	*M*	*T*	
Targeted population							
Existing factories	2	12	5	14	4	15	52
Closed factories during low-production season	0	6	1	8	1	7	23
Available factories	2	6	4	6	3	8	29
Sampling/Participated							
Factories willing to participate	1	2	3	2	1	3	12
Distributed questionnaires	10	10	30	10	10	15	85
Collected questionnaires	14	10	27	11	12	22	96
Valid Response Set at 96							

Notes: *"M"* refers to Manufacturer and *"T"* refers to Trader

Data collection was carried out through personally administered questionnaire survey. Data collection was conducted during August to September 2019, at low-production periods.

The survey was fully supported by the manager of each respective manufacturer or trader. The first part of the questionnaire survey relates to the demographic and general profiles of the participants. The second part relates to the theoretical direction of this research. Response scale for the second part is five *Likert scale*, spanning from "strongly disagreed" to "strongly agreed".

Data Analysis and Result

Data analysis is divided into two parts; 1) analysis of the validity and reliability of the measurement instrument, and 2) analysis of the structural model – the fitness and the explanatory power reflected in percentage explained in the variance of the corresponding dependent variable, and the path coefficients to judge the supportability of the stated hypotheses.

Descriptive Profile and Cross-Comparative Analysis

Data were collected from 12 pineapple factories located in Thasud, Nang Lae, and Ban Du sub-districts of Mueang Chiang Rai District. Comparing the locations, Nang Lae's workforces show higher level of perceptions of all the constructs studied, at consistently mean value above 4 of the five *Likert scale*.

The profiles shown in Table 2 can visually infer that lower job resources, trust and motivation are significant factors causing the lower level of perceptual values for both Thasud and Ban Du.

Table 2: Demographic Data of the Respondents

Descriptive	Frequency	Percentage	Job Demand	Job Resource	Trust	Motivation	Job Commitment	Loyalty to Company	Behaviors	Job Satisfaction	Organizational Performance
Company Type											
Manufacturer	63	65.6	4.175	4.022	4.021	4.096	4.376	4.164	4.314	4.068	4.355
Trader	33	34.4	3.919	3.830	4.232	3.828	4.060	3.920	3.882	3.866	4.273
(t,df)			(1.971, 94)			(2.024, 94)			(4.452, 94)		
Sig. (2-tailed)			0.052			0.011			0.000		
Company Location											
Thasud	21	21.9	4.081	3.743	3.714	3.789	4.222	3.841	4.253	3.812	4.319
Nang Lae	64	66.7	4.156	4.088	4.250	4.139	4.339	4.229	4.212	4.125	4.380
Ban Du	11	11.5	3.695	3.600	3.909	3.628	3.940	3.667	3.732	3.616	4.030
(F, df1, df2)			(3.415, 2,93)	(5.605, 2,93)	(5.129, 2,93)			(5.207, 2,93)	(5.287, 2,93)	(4.409, 2,93)	
Sig. (2-tailed)			0.037	0.005	0.008			0.007	0.007	0.015	
Gender											
Male	24	25.0	3.792	4.050	4.222	4.035	4.193	4.001	4.134	4.075	4.305
Female	72	75.0	4.185	3.925	4.051	3.994	4.292	4.107	4.176	3.973	4.334
(t,df)			(-2.8,94)								
Sig. (2-tailed)			0.006								
Age											
Less than 20	16	16.7	4.208	4.000	4.374	3.931	4.168	4.044	3.833	3.871	4.271
20 to 30	43	44.8	3.937	3.805	4.000	3.897	4.116	3.907	4.119	3.906	4.318
More than 30	37	38.5	4.208	4.114	4.081	4.160	4.487	4.297	4.365	4.161	4.361
(F, df1, df2)							(4.626,	(3.419,	(7.808,		

Descriptive	Frequency	Percentage	Job Demand	Job Resource	Trust	Motivation	Job Commitment	Loyalty to Company	Behaviors	Job Satisfaction	Organizational Performance
							2,93)	2,93)	2,93)		
Sig. (2-tailed)							0.012	0.037	0.001		
Designation											
Peeler	31	32.3	4.130	4.013	3.882	4.016	4.205	4.118	4.257	3.930	4.269
Packer	49	51.0	4.013	3.910	4.204	3.940	4.347	4.076	4.121	3.992	4.374
Production Service	9	9.4	4.112	4.156	4.334	4.323	4.258	4.186	4.273	4.362	4.482
QC (Quality controller)	7	7.3	4.380	3.771	3.950	3.986	3.999	3.810	3.936	3.877	4.047
Work experience											
Less than 1 year	53	55.2	3.962	3.770	3.955	3.918	4.189	3.956	4.046	3.807	4.264
1-2 years	29	30.2	4.069	4.097	4.253	4.060	4.253	4.139	4.286	4.179	4.358
More than 2 years	14	14.6	4.596	4.371	4.286	4.214	4.596	4.429	4.373	4.349	4.499
(F, df1, df2)			(6.615, 2,93)	(4.914, 2,93)			(2.800, 2,93)	(2.893, 2,93)	(3.867, 2,93)	(6.294, 2,93)	
Sig. (2-tailed)			0.002	0.009			0.066	0.060	0.024	0.003	
Starting working time											
Earlier than 8 AM	38	39.6	4.255	4.147	4.045	4.151	4.352	4.219	4.308	4.098	4.255
Between 8-10 AM	56	58.3	3.958	3.836	4.130	3.916	4.202	3.959	4.074	3.951	4.375
Later than 10 AM	2	2.1	4.500	3.700	4.000	3.670	4.500	4.835	4.045	3.440	4.335
(F, df1, df2)			(3.259, 2,93)					(2.998, 2,93)			
Sig. (2-tailed)			0.043					0.055			
Average working hours											
Less than 8 hours	2	2.1	4.000	3.500	3.665	3.500	3.665	3.500	3.875	3.625	4.500
8 to 10 hours	69	71.9	3.981	4.032	4.106	4.044	4.314	4.063	4.235	4.105	4.309
More than 10 hours	25	26.0	4.386	3.784	4.093	3.933	4.187	4.174	3.999	3.733	4.360
(F, df1, df2)			(4.304, 2,93)							(3.664, 2,93)	
Sig. (2-tailed)			0.016							0.029	
Living Area											
Near (Within 5 km)	47	49.0	4.120	4.000	4.092	4.133	4.312	4.170	4.249	4.050	4.334
Far (More than 5 km)	49	51.0	4.055	3.914	4.095	3.881	4.225	3.993	4.086	3.949	4.320
(t, df)						(2.003, 94)					
Sig. (2-tailed)						0.048					

The female workforces felt jobs more demanded with lower matching of job resources, which is opposite to the male counterparts. Also, the older the workers, the job commitment and loyalty, and thus, the collective in-role and extra-role behaviors also stand higher. This phenomenon also applies to work experience duration – that is, the workers with longer years of the pineapple production experiences state higher for the constructs studied. In this way, the companies may have to take this factor into consideration, and gradually develops them to have strategic alignment and loyalty to the organizations.

An interesting weakness is found for the workforce starting work in between 8-10 AM. While the longer work hours can cause stressful states of the workers, Table 2 shows that, with the appropriate job resources provided and the trusts fostered with the colleagues and supervisors, the situation can be cushioned.

The workers who live further away show less motivated, but its impact to other factors is negligible. Comparing the company type, the employees of the manufacturers perceive higher job demanded when compared to the traders, such as the jobs need to pay high concentration, is very exhaustive, and with higher work load. Nevertheless, the manufacturer groups also show higher level of motivation and higher level of in-role and extra-role behaviors, partly could be attributable to higher level of matching job resources, and higher motivation.

Validity and Reliability Assessments

Prior to the SEM path analysis, quality assessment of the constructs is performed. What is not reliable can't be the base for validity. All the constructs met the 0.7 minimum threshold of the Cronbach's Alpha reliability as shown in Table 3.

Table 3: Factor and Reliability Analyses of Each Construct

Constructs	Mean	Std. Dev.	Alpha	KMO	TVE	$\sqrt{TVE}$
Job Demand	4.087	0.614	0.752	0.683	0.670	0.818
Job Resource	3.956	0.729	0.887	0.865	0.696	0.834
Trust	4.094	0.697	0.777	0.650	0.695	0.833
Motivation	4.004	0.626	0.775	0.726	0.764	0.875
Job Commitment	4.268	0.585	0.773	0.675	0.694	0.833
Loyalty to Company	4.080	0.686	0.780	0.684	0.700	0.837
Behaviors	4.166	0.494	0.756	0.698	0.664	0.815
Job Satisfaction	3.998	0.639	0.888	0.864	0.582	0.763
Organizational Performance	4.327	0.491	0.772	0.698	0.687	0.829

Factor Loading: All > 0.7

Criterion for divergent: The diagonal must be higher than the cross-correlations coefficients

Based on the five agreeable *Likert scale* measurement, majority of the responses state above 4.0 scale, with minor weaknesses located in job resources.

The KMO, greater than 0.6, indicates the appropriateness of data reduction in the construct validity assessment.

Square-root of the total variance analysis is used to compare with the cross-correlations coefficients of the constructs, as given in Table 4. With the value more than the cross-correlations coefficients of the constructs, discriminant validity is assured of.

With the square-root of TVE for each of the construct shown exceeding the cross-correlations terms in Table 4, divergent validity is established.

Table 4: Correlations Analysis

Constructs	JD	JR	T	M	JC	LtC	B	JS	OP
Job Demand (JD)	1								
Job Resource (JR)	.530**	1							
Trust (T)	.456**	.717**	1						
Motivation (M)	.494**	.797**	.724**	1					
Job Commitment (JC)	.450**	.590**	.644**	.725**	1				
Loyalty to Company (LtC)	.528**	.672**	.688**	.768**	.800**	1			
Behaviors (B)	.470**	.599**	.435**	.661**	.646**	.602**	1		
Job Satisfaction (JS)	.404**	.833**	.767**	.850**	.716**	.739**	.652**	1	
Organizational Performance (OP)	.394**	.611**	.565**	.635**	.680**	.623**	.572**	.615**	1

**. Correlation is significant at the 0.01 level (2-tailed).
Correlations Coefficients are significant at the 0.01 level (2-tailed) **

With the total variance explained (TVE) exceeding 0.50, factor loading well above 0.70 for each measurement item of the construct, convergent validity is established.

Table 5 is the result proven of robust factor loading for each questionnaire-items. Thus, the questionnaire design is robustly of good quality.

Table 5: Factor Loading of the Questionnaire Survey Items

Constructs	Items	Cronbach's Alpha	Factor Loading	Mean	Standard Deviation
Stimulus:					
JD-R					
Job Demand	The job needs me to pay high concentration.	0.752	0.844	3.938	0.765
	The job is very exhaustive.		0.825	4.375	0.715
	The job has high work load.		0.785	3.948	0.773
Job Resource	The job is fully supervised by supervisor.	0.887	0.858	3.750	0.962
	The working environment is safe to get the job well done.		0.865	3.875	0.757
	Equipment needed to get the job done is always available in good quality.		0.870	4.083	0.948
	Time provided to get the job done is adequate.		0.810	4.031	0.787
	Team work is adequate to get the job done in good quality.		0.764	4.042	0.917
Trust	Trust among colleagues is good.	0.777	0.760	4.125	0.798

Constructs	Items	Cronbach's Alpha	Factor Loading	Mean	Standard Deviation
	Trust with supervisor is good.		0.843	4.052	0.899
	Overall, there is good trust atmosphere in this company.		0.892	4.104	0.814
Motivation					
Extrinsic Motivation	The job provides good financial incentive to motivate me.		0.898	3.656	1.074
	The company's policy is attractive to motivate me to work hard.	0.755	0.898	3.729	0.946
Intrinsic Motivation	I feel satisfied when I finish my job on time.		0.894	4.323	0.571
	I feel happy to be able to get a job done with the team.	0.729	0.712	4.250	0.616
	I feel happy to be able to get a job done in good quality.		0.819	4.375	0.700
Organism:					
Job Satisfaction	I am satisfied with overall job situation		0.761	4.094	0.650
	I am satisfied with company policy.		0.852	3.875	0.798
	I am satisfied with safety working environment.		0.824	3.917	0.842
	I am satisfied with relationship with supervisor.	0.888	0.675	4.052	0.999
	I am satisfied with relations with colleagues.		0.676	4.146	0.740
	I am satisfied with pay.		0.776	3.823	1.142
	I am satisfied with ethics of the company.		0.806	3.990	0.718
	I have work happiness.		0.710	4.073	0.837
Job Commitment	I am willing to do what I can to get the job done well.		0.817	4.490	0.598
	I am willing to do other additional job for benefiting this company.	0.773	0.878	4.177	0.725
	I am willing to work extra time to benefit the company.		0.802	4.135	0.776
Response:					
In-Role Behavior	I do not waste time on job.		0.768	3.740	0.997
	I do not waste resources on job.	0.793	0.875	4.094	0.872
	I always deliver to job requirement.		0.895	4.000	0.821
Extra-Role Behavior	I am willing to help other when they are in need.		0.748	4.375	0.528
	I am sincere to co-worker.		0.689	4.438	0.595
	I am always willing to share idea with the company	0.753	0.815	4.375	0.585
	I am always willing to train new comers.		0.780	4.354	0.632

Constructs	Items	Cronbach's Alpha	Factor Loading	Mean	Standard Deviation
Loyalty to Company	I am proud to tell others about this company.	0.780	0.873	4.031	0.900
	I would continue on this job for quite a long time.		0.792	3.927	0.849
	I am willing to put in extra effort to deliver the job assignment on time.		0.843	4.281	0.706
Organizational Performance					
Job Performance	We often can finish our assigned job on time.	0.772	0.842	4.313	0.586
	Our works meet the quality standard of our company.		0.829	4.250	0.598
	Our works meet the quality standard of our customer.		0.816	4.417	0.592

Hypothesis testing

The correlations result in Table 6 provides a support for the first hypothesis relationship stated in *H1*. The other hypotheses are shown to be supported in Table 6 and by the structural path model given in Fig. 2.

Table 6: Hypothesis Supporting Details

Dependent Variable	Independent Variable	Beta	t-value	Sig.	Hypo.	Result
Organizational Performance $R^2 = 0.51$	Job Commitment	0.37	2.817	0.006	H_5	Support
	Loyalty to Company	0.11	0.799	0.426	H_5	
	Behaviors (OCB)	0.16	1.542	0.126	H_5	
	Job Satisfaction	0.17	0.166	0.172	H_5	
Job Commitment $R^2 = 0.60$	Job Resource	-0.27	-2.030	0.045	H_2	Support
	Job Demand	0.16	1.956	0.054	H_2	
	Trust	0.16	1.463	0.147	H_2	
	Motivation	0.38	2.743	0.007	H_2	
	Job Satisfaction	0.44	2.783	0.007	H_3	
Loyalty to Company $R^2 = 0.74$	Job Resource	0.02	0.179	0.858	H_4	Support
	Job Demand	0.13	1.880	0.063	H_4	
	Trust	0.10	1.165	0.247	H_4	
	Motivation	0.21	1.851	0.067	H_4	
	Job Commitment	0.44	5.155	0.000	H_4	
	Job Satisfaction	0.09	0.698	0.487	H_4	
OCB $R^2 = 0.57$	Job Resource	0.10	0.704	0.483	H_4	Support
	Job Demand	0.18	2.132	0.036	H_4	
	Trust	-0.35	-3.098	0.003	H_4	
	Motivation	0.21	1.404	0.164	H_4	
	Job Commitment	0.33	3.003	0.003	H_4	
	Job Satisfaction	0.35	2.083	0.040	H_4	
Job Satisfaction $R^2 = 0.82$	Job Resource	0.38	4.766	0.000	H_2	Support
	Job Demand	-0.12	-2.261	0.026	H_2	
	Trust	0.23	3.357	0.001	H_2	
	Motivation	0.44	5.466	0.000	H_2	

The structural path model in Fig. 2 reveals a satisfactory fit to the data, with the model fit statistics shown in Table 7.

The structural equation model (SEM) is evidenced with absolute model fits:

χ^2= 6.257, χ^2/df = 1.251, p > 0.005 (which signifies significant absolute model fit by the livelihood function), RMSEA = 0.051, and

Incremental fits, as evidenced by NFI = 0.992, RFI = 0.939, IFI = 0.998, CIF = 0.998 (Hair, Joe, Hopkins and Kuppelwieser, 2014).

The ability to explain each of the dependent variable's variances in each of the hypotheses are ranged in between 0.50 to 0.80, which signifies the significant ability of the model to explain the relevant phenomena.

Though the stimuli, consisting of job resources, job demand, trust and motivation, are important, the organistic states of job commitment and job satisfaction, as mediators, should not be ignored, as these mediators significantly influence employee behaviors positively and loyalty to company, which then, forms the basis of organizational performance.

A direct implication to the traders and manufacturers is the strategy they need to develop to improve job commitment, loyalty and satisfaction, and most importantly, to drive employee behaviors that have direct impact on organizational performance.

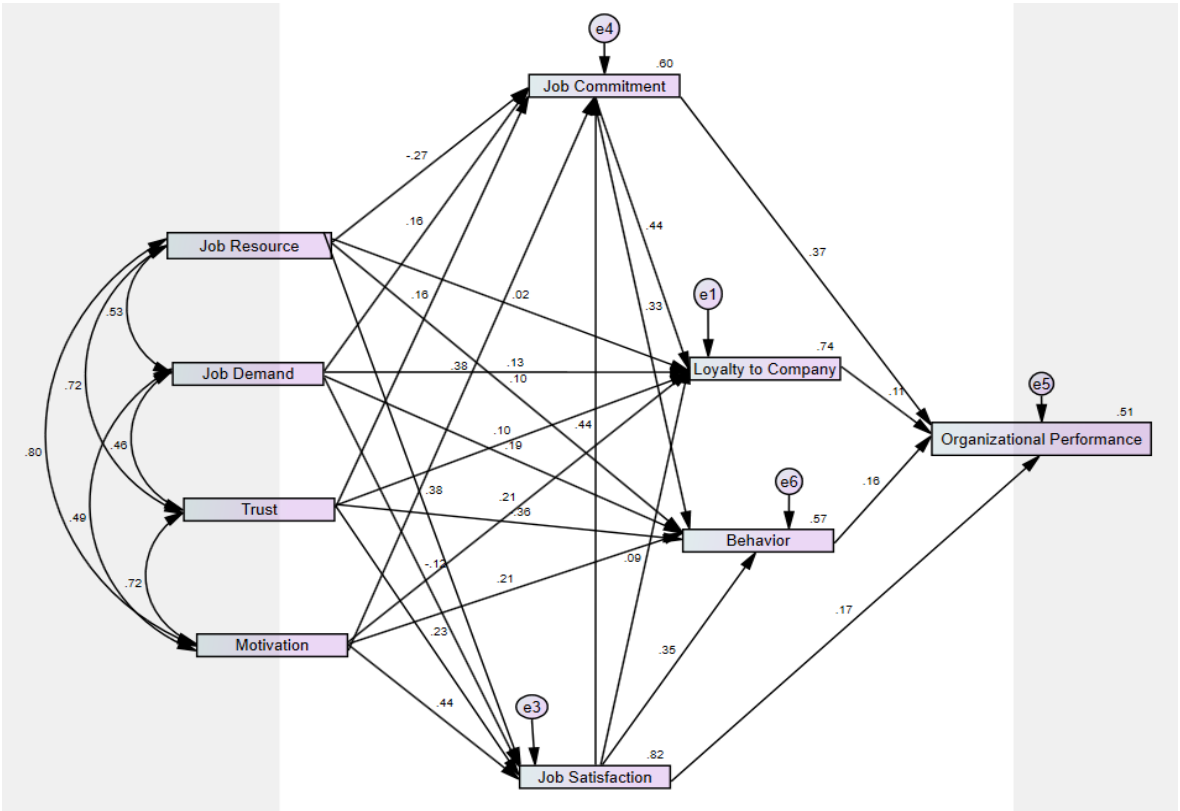

Fig. 2: The Validated Structure Equation Model

Table 7 below presents the SEM fit statistics, surpassing all the requirements for a good model fit.

Table 7: Model Fit Statistics

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	49	6.257	5	.282	1.251
Saturated model	54	.000	0		
Independence model	18	743.894	36	.000	20.664

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default Model	.992	.939	.998	.987	.998
Saturated Model	1.000		1.000		1.000
Independence Model	.000	.000	.000	.000	.000

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default Model	.051	.000	.158	.412
Independence Model	.455	.427	.484	.000

Conclusion

The Job Demand-Resources (JD-R) theory was empirically shown supported, along with motivation and trust to colleagues and supervisors, to influence the organism or internal psychological states of the employees.

The model proposed and SEM-tested to fit demonstrates an extended S-O-R (Stimuli-Organism-Response) paradigm in working. The S-O-R was popularly used to study consumer behaviors and community behaviors towards a common purpose such as to establish a community-based tourism (CBT). This research demonstrates that S-O-R is equally suitable for studying workforce behaviors and their contributions to organizational performances.

The SEM is laid out in a way to allow the studying of the mediator effect of organism and the response factors to organizational performance. It concludes that organism plays a mediating role, at least partially, to leverage the stimulating factors such as JD-R, motivation and trust. And, both loyalty and behavioral responses are also playing the mediating role in leveraging the relationship between organism and organizational performance.

There are also practical implications demonstrated by the ANOVA and T-tests, which outlines a need of the companies to allocate budgets on human resource development and management (HRD, HRM) for the workforces, especially those who just join, with work experiences less than one year.

Those who work longer hours feel the higher demand stresses, and the organizations should ensure appropriate job resources are matched so as to not negatively influence the organismic states of the employees, which can cause lower level of in-role and extra-role

behaviors for organizational level of contributions. The companies should also pay more attention to female workforces, as they show higher level of job demand with lower job resources matched, which causes lower level of job satisfaction and motivation.

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