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The Effect of Responsible Leadership and Team Work on Workforce Agility Mediated by Work Engagement at PT Hasta Ayu Nusantara

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Abstract

This research aims to evaluate the influence of Responsible Leadership and Team Work on Workforce Agility mediated by Work Engagement at PT Hasta Ayu Nusantara using the Partial Least Squares Structural Equation Modeling (PLS - SEM) analysis method via the SmartPLS 3 application. This research was conducted by collecting data from PT Hasta Ayu Nusantara employees using a structured questionnaire. This research sample consisted of 67 respondents with the sampling technique being non-probability sampling or simple saturated sampling. The results of the analysis show that of the seven hypotheses tested, two hypotheses show a positive and significant influence between the variables studied. Work Engagement shows that it is able to encourage increased Workforce Agility and Work Engagement shows that it is able to mediate the influence of Responsible Leadership on Workforce Agility. However, five other hypotheses show a negative influence, namely that Responsible Leadership is unable to encourage increased Work Engagement and Workforce Agility, Team Work is unable to encourage increased Work Engagement and Workforce Agility, and Work Engagement is unable to mediate the influence of Responsible Leadership on Workforce Agility.

Keywords: responsible leadership, smartpls3, team work, work engagement, workforce agility

INTRODUCTION

After the Covid Pandemic - 19, all companies felt the impact, including Indonesia; companies must make new innovations to continue to survive and be sustainable; according to the Ministry of Labor Survey in 2020, there are 88% of affected companies, including those experiencing a loss situation (Lu et al., 2021). News in CNCB Indonesia, published in 2023, said that the condition of the company after COVID-19 has not fully recovered due to the domino effect of the COVID-19 Pandemic. Deputy Chairman of the Indonesian Employers Association (APINDO) DKI Jakarta, Mr. Nurjaman, added that layoffs continue to occur, there are still factories that are closed, the funds owned by the Company have been used during the COVID-19 Pandemic, there is a manufacturing process (input) but not sold (output), so there are more expenses than income. Minister of Finance Mrs. Sri Mulyani Indrawati said in her speech at the Commemoration Ceremony of the 115th National Awakening Day that currently, the global economy has not fully recovered and still has to face many challenges, the condition of the world economy is not at a safe level (Economy, 2021).

Post Covid Pandemic - 19, the Company must rise to innovate in order to continue to survive and be sustainable, every company wants quality human resources for the development of the Company, so it is also necessary for human resources to have high work productivity. Employees are human resources in the Company which includes important factors to be able to contribute to the Company, employee contributions can determine the development of the Company's future existence (Guest, 2017). Leaders who are agile at work, become assets of the company or organization because they have the skills, knowledge, and abilities so that the entrepreneurial spirit, vision, and spirit of the work team, which results in the company or organization towards or even being the best (Pusenius, 2019). A leader is the spear of employees who can direct their subordinates towards a common goal, leaders who feel close (engagement) with the Company, will be able to lead their subordinates to achieve the goals of the Company. The purpose of this study is to analyze the role of leadership and employee engagement in improving work productivity in the post-Covid-19 era, as a strategic effort to support the sustainability and competitiveness of companies in challenging economic conditions (Manroop et al., 2025).

Outsourcing companies are companies engaged in providing labor for other companies, or referred to as employers, making it easier for employers to find employees without the need to search, recruit, and train (Lee & Szkudlarek, 2021). From starting wages and instructions to employee guarantees that provide are from Outsourcing Companies. PT NUS is a labor outsourcing company in the field of Marketing Activation, which provides sales promotion girls, merchandisers, sales, and canvassers that have been established since 2004 with clients engaged in the FMCG (Fast Moving Customer Goods) sector. PT NUS, in addition to having outsourced employees, also has in-house employees who handle its clients, where employees must follow PT NUS regulations such as entry hours; PT NUS hopes that employees obey existing regulations and employees can maximize work so as to achieve the goals of PT NUS.

The following is secondary data from PT NUS related to employee attendance and turnover:

Table 1. Employee Absenteeism Data Year 2022 - 2023

Employee Absence Data											
Year	**Month**	**Number of Working Days**	**Number of Employees**	**Attendance**				**Number of Resignations**	**% Absent**	**% Delay**	**% Employee Turnover**
				Pain	**Permission / Leave**	**Alfa**	**Too late**				
2022	January	28	137	18	45	3	162	2	1,72%	4,22%	1,46%
	February	27	135	66	14	0	93	1	2,19%	2,55%	0,74%
	March	26	133	26	33	3	195	6	1,79%	5,64%	4,51%
	April	25	129	10	23	0	185	2	1,02%	5,74%	1,55%
	May	19	127	12	364	0	88	13	15,58%	3,65%	10,24%
	June	25	133	14	13	1	98	4	0,84%	2,95%	3,01%
	July	26	125	24	37	4	77	5	2,00%	2,37%	4,00%
	August	25	122	21	24	4	103	4	1,61%	3,38%	3,28%
	September	26	125	33	22	7	132	4	1,91%	4,06%	3,20%
	October	26	126	15	27	5	158	8	1,43%	4,82%	6,35%

Employee Absence Data											
Year	Month	Number of Working Days	Number of Employees	Attendance				Number of Resignations	% Absent	% Delay	% Employee Turnover
				Pain	Permission / Leave	Alfa	Too late				
	November	26	120	28	47	2	124	3	2,47%	3,97%	2,50%
	December	27	119	18	41	4	95	1	1,96%	2,96%	0,84%
2023	January	28	121	32	66	3	121	3	2,98%	3,57%	2,48%
	February	26	121	14	107	6	166	3	4,04%	5,28%	2,48%
	March	26	122	26	33	3	195	0	1,95%	6,15%	0,00%
	April	26	128	19	125	3	196	3	4,42%	5,89%	2,34%
	May	24	122	31	18	1	86	4	1,71%	2,94%	3,28%
	June	25	120	459	25	28	204	5	17,07%	6,80%	4,17%
	July	24	121	11	106	6	116	4	4,24%	3,99%	3,31%
	August	26	115	26	27	3	153	7	1,87%	5,12%	6,09%
Average									3,64%	4,30%	3,29%

From Table 1. above shows that the average employee absence data for 2022 - 2023 is 3.64%, the average employee tardiness data for 2022 - 2023 is 4.30%, the average employee turnover data for 2022 - 2023 is 3.29%.

Table 2. Summary KPI (Key Performance Indicator) Team

Team	Qty Team	Qty Team Acv KPI < 68%	Percentage
A	100	34	34%
B	238	82	34%
C	138	43	31%
D	50	21	42%
E	116	83	72%
F	87	84	97%
G	253	63	25%
H	361	124	34%
I	194	165	85%
TOTAL	1537	699	45%
Average achievement 4 months out of 6			

Source: KPI team January - June 2023

The following is KPI data from the team under the Leader of PT NUS the data above shows that Team A, with a total of 100 people, has 34 people whose KPI achievement is below 68%. So the average of the 9 groups, as an average percentage for 6 consecutive months (January - June 2023 period), there are 45% of the 1,537 teams whose achievement is below 68%

This situation highlights the urgency of addressing issues related to leadership style and teamwork in driving workforce agility, Researchers conducted research with the title "Responsible

Leadership and Team Work on Workforce Agility Mediated by Work Engagement at PT Hasta Ayu Nusantara" because Leadership and Team Work in the company plays a role for management in the Company in taking strategies, policies and business decisions to increase agility in the Company so as to achieve a productive work system and produce the best service, if supported by employees who have involvement in their work.

Previous studies have supported this line of inquiry. For instance, Afsar et al. (2021) found that responsible leadership positively influences workforce agility through the mediating role of work engagement. Similarly, Breevaart & Bakker (2019) revealed that team dynamics, especially when paired with engaged employees, are significantly associated with proactive and adaptive work behavior. Furthermore, Chowdhury et al. (2023) emphasized that in high-pressure organizational settings, leadership that promotes responsibility and values collaboration enhances team resilience and agility. These findings affirm that investigating the link between responsible leadership, teamwork, and work engagement toward building workforce agility is not only relevant but also critical for organizations facing performance challenges such as those experienced by PT Hasta Ayu Nusantara.

RESEARCH METHODS

PLS (Partial Least Square) is a component analysis method or equation based structural equation modeling that uses the Partial Least Square (Smart-PLS) program for data processing. PLS (Partial Least Square) is an alternative model to covariance-based SEM.

Population refers to all people, events, or objects of interest to researchers who want to investigate. The population of this study are employees who work at PT NUS, PT NUS is an outsourcing company which has leaders at the Jakarta Head Office and at branch offices as many as 67 employees in the leader position and all of them will be used as respondents of this study.

Primary data used in this study is data collected directly from research subjects through a list of written statements or closed questionnaires submitted by the author to employees of PT NUS. The primary data collection method uses a survey method, in which the main data and information are obtained from the research sample through the use of a questionnaire or questionnaire. Respondents can fill out the questionnaire using Google Forms, and the carving scale is Likert from 1-5.

Model evaluation is carried out by looking at the significant value to determine the effect of variables during the bootsrapping process. By paying attention to the value in the path coeffiecient output, a structural model test can be carried out. The P-value can be used to determine whether there is an effect of endogenous variables on exogenous variables, and the T-statistic can be used to determine the level of significance, with the T table using 1 side, namely 1.645. The Y value of the initial sample can be used to determine how much influence the endogenous and exogenous variables have.

RESULT AND DISCUSSION

PT NUS is an Outsourcing Company or Outsourcing Business is a company that provides labor for other companies. PT NUS was established in 2004 in Jakarta, the first office of PT NUS in the North Jakarta area, with a workforce of less than 100 people. Currently PT NUS has an office in East Jakarta and has 23 representative operational offices throughout Indonesia, from the islands of Sumatra, Java, Kalimantan, Sulawesi, Jayapura, and Bali.

PT NUS has clients engaged in FMCG (Fast Moving Consumer Goods) where the products sold are needed for daily needs such as milk, staples, kitchen needs and so on. The clients of PT NUS, need sales (Sales Promotion Girl, Merchandiser, Motorist) to be placed in Modern Stores (Hypermart, Lion Super Indo and so on) or Traditional (Markets, Grocery and so on).

Table 3. Leader Data of PT NUS

No.	Position	Number of Employees
1	Manager	4
2	Head of division	10
3	Coordinator (Per Client)	23
4	Head of Area	30
	Total	67

Analysis of Responsible Leadership Variable Description

Table 4. Frequency and Percentage of Responsible Leadership Variable Score

Dimensions	Indicator	SS	S	CS	KS	TS	STS	Total	Average	Interpretation
Awareness	RL - 1	0	13	51	1	2	0	67	4,12	High/Good
Awareness	RL - 2	0	13	47	5	2	0	67	4,06	High/Good
Awareness	RL - 3	0	34	29	0	4	0	67	4,39	High/Good
Awareness	RL - 4	0	19	40	2	6	0	67	4,07	High/Good
Awareness	RL - 5	0	17	44	5	1	0	67	4,15	High/Good
Awareness	RL - 6	0	17	44	2	4	0	67	4,10	High/Good
Average Awareness Score									4,15	High/Good
Vision	RL - 7	0	9	56	2	0	0	67	4,10	High/Good
Vision	RL - 8	0	21	43	2	1	0	67	4,25	High/Good
Average Vision Score									4,18	High/Good
Imagination	RL - 9	0	13	53	1	0	0	67	4,18	High/Good
Imagination	RL - 10	0	17	48	1	1	0	67	4,52	High/Good
Average Imagination Score									4,35	High/Good
Responsible	RL - 11	0	16	48	2	1	0	67	4,51	High/Good
Responsible	RL - 12	0	24	39	3	1	0	67	4,51	High/Good
Responsible	RL - 13	0	15	48	2	2	0	67	4,61	High/Good
Average Score Responsible									4,54	High/Good
Action	RL - 14	0	38	24	4	1	0	67	4,48	High/Good

Dimensions	Indicator	SS	S	CS	KS	TS	STS	Total	Average	Interpretation
Action	RL - 15	0	44	16	5	2	0	67	4,52	High/Good
Average Action Score									4,50	High/Good
									4,34	High/Good

The table above shows that for the questionnaire statement in the Responsible Leadership variable (X1) there are 5 dimensions, namely: Awareness has an average value of 4.15 in the "High / Good" category, Vision has an average value of 4.19 in the "High / Good" category, Imagination has an average value of 4.35 in the "High / Good" category, Responsible has an average value of 4.54 in the "High / Good" category, and Action has an average value of 4.50 in the "High / Good" category. The total average value in this variable statement is 4.34, which means that in the interval interpretation it falls into the "High / Good" category (Chikha & Skorupski, 2022). These results indicate that Responsible Leadership within the scope of its sample is in the "High / Good" category.

Team Work Variable Description Analysis

Table 5. Frequency and Percentage of Team Work Variable Score

Dimensions	Indicator	SS	S	CS	KS	TS	STS	Total	Average	Interpretation
Cooperating	TW 1	0	48	15	4	0	0	67	4,66	High/Good
Cooperating	TW 2	0	43	12	6	6	0	67	4,37	High/Good
Cooperating	TW 3	0	48	12	4	3	0	67	4,57	High/Good
Average Score Cooperating									4,53	High/Good
Coordinating	TW 4	0	65	1	1	0	0	67	4,96	High/Good
Coordinating	TW 5	0	59	5	2	1	0	67	4,82	High/Good
Coordinating	TW 6	0	52	14	1	0	0	67	4,76	High/Good
Average Coordinating Score									4,85	High/Good
Communicating	TW 7	0	55	10	2	0	0	67	4,79	High/Good
Communicating	TW 8	0	53	12	1	1	0	67	4,75	High/Good
Communicating	TW 9	0	50	13	4	0	0	67	4,69	High/Good
Average score Communicating									4,74	High/Good
Comforting	TW 10	0	38	27	1	1	0	67	4,52	High/Good
Comforting	TW 11	0	37	28	1	1	0	67	4,51	High/Good
Comforting	TW 12	0	37	28	1	1	0	67	4,51	High/Good
Comforting Mean Value									4,51	High/Good
Conflict Resolving	TW 13	0	45	18	4	0	0	67	4,61	High/Good
Conflict Resolving	TW 14	0	54	11	2	0	0	67	4,78	High/Good
Conflict Resolving	TW 15	0	55	8	4	0	0	67	4,76	High/Good
Average Conflict Resolving Score									4,72	High/Good
									4,67	High/Good

Based on the table above, it shows that for the questionnaire statement in the Team Work variable (X2) there are 5 dimensions, namely: Cooperating has an average value of 4.53 in the "High / Good" category, Coordinating has an average value of 4.85 in the "High / Good" category, Communicating has an average value of 4.74 in the "High / Good" category, Comforting has an average value of 4.51 in the "High / Good" category, and Conflict Resolving has an average value of 4.72 in the "High / Good" category. The total average value in this variable statement is 4.67, which means that in the interval interpretation it falls into the "High / Good" category (De Baets & Harvey, 2020). These results indicate that Team Work within the scope of the sample is in the "High / Good" category.

Work Engagament Variable Description Analysis

Table 6. Frequency and Percentage of Work Engagement Variable Score

Dimensions	Indicator	SS	S	CS	KS	TS	STS	Total	Average	Interpretation
Vigor	WE 1	0	54	10	3	0	0	67	4,76	High/Good
Vigor	WE 2	0	53	11	3	0	0	67	4,75	High/Good
Vigor	WE 3	0	48	16	2	1	0	67	4,66	High/Good
Vigor	WE 4	0	43	17	6	1	0	67	4,52	High/Good
Average Vigor Score									4,67	High/Good
Absorption	WE 5	0	42	17	8	0	0	67	4,51	High/Good
Absorption	WE 6	0	52	13	2	0	0	67	4,75	High/Good
Absorption	WE 7	0	48	13	6	0	0	67	4,63	High/Good
Average Absorption Value									4,63	High/Good
Dedication	WE 8	0	52	9	6	0	0	67	4,42	High/Good
Dedication	WE 9	0	20	17	22	8	0	67	4,69	High/Good
Dedication	WE 10	0	41	14	11	1	0	67	3,73	High/Good
Average Dedication Score									4,28	High/Good
Average Dedication Score									4,53	High/Good

Based on the table above, it shows that for the questionnaire statements in the Work Engagement (Z) variable, there are 3 dimensions, namely: Vigor has an average value of 4.67 in the "High / Good" category, Absorption has an average value of 4.63 in the "High / Good" category, and Dedication has an average value of 4.28 in the "High / Good" category. The total average value in this variable statement is 4.53, which means that in the interval interpretation it falls into the "High / Good" category. These results indicate that Work Engagement within the scope of the sample is in the "High / Good" category (Lini et al., 2020).

Workforce Agility Variable Description Analysis

Table 7. Frequency and Percentage of Workforce Agility Variable Score

Dimensions	Indicator	SS	S	CS	KS	TS	STS	Total	Average	Interpretation
Proactive	WA 1	0	31	30	6	0	0	67	4,37	High/Good

Dimensions	Indicator	SS	S	CS	KS	TS	STS	Total	Average	Interpretation
Proactive	WA 2	0	32	24	10	1	0	67	4,30	High/Good
Proactive	WA 3	0	34	26	7	0	0	67	4,40	High/Good
Average Value Proactive									3,27	Sufficient/Medium
Adaptive	WA 4	0	33	13	18	3	0	67	4,13	High/Good
Adaptive	WA 5	0	21	21	23	2	0	67	3,91	Sufficient/Medium
Adaptive	WA 6	0	33	20	13	1	0	67	4,27	High/Good
Adaptive Mean Value									4,10	High/Good
Resilience	WA 7	0	38	17	11	1	0	67	4,37	High/Good
Resilience	WA 8	0	45	16	6	0	0	67	4,58	High/Good
Resilience	WA 9	0	15	16	36	0	0	67	3,69	Sufficient/Medium
Average Resilience Score									4,21	High/Good
Total Average Score									3,86	Sufficient/Medium

Based on the table above, it shows that for the questionnaire statements in the Workforce Agility (Y) variable, there are 3 dimensions, namely: Proactive has an average value of 3.27 in the "Moderate / Fair" category, Adaptive has an average value of 4.10 in the "High / Good" category, and Resilience has an average value of 4.21 in the "High / Good" category. The total average value in this variable statement is 3.86, which means that in the interval interpretation it falls into the "Moderate / Sufficient" category. These results indicate that Workforce Agility within the scope of the sample is in the "Moderate / Adequate" category.

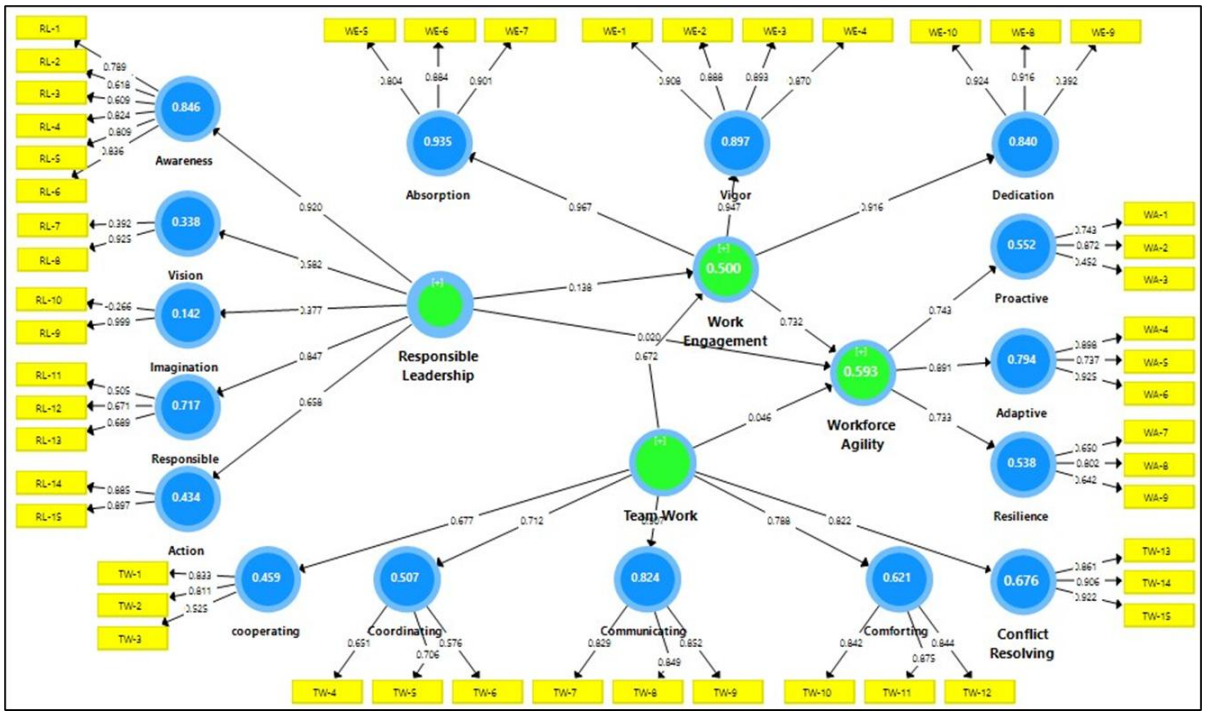

Figure 1. Loading Factor Value in Smart PLS Research Model

Based on the image formed in the Smart PLS application, the loading factor value is below 0.50, namely RL 7 with a value of 0.39, RL 10 with a value of -0.26, WA 3 with a value of 0.45, and WE 9 with a value of 0.39, so the elimination is carried out on the indicator, and the following is the loading factor value after modification (Mallen-Ntiador, 2017):

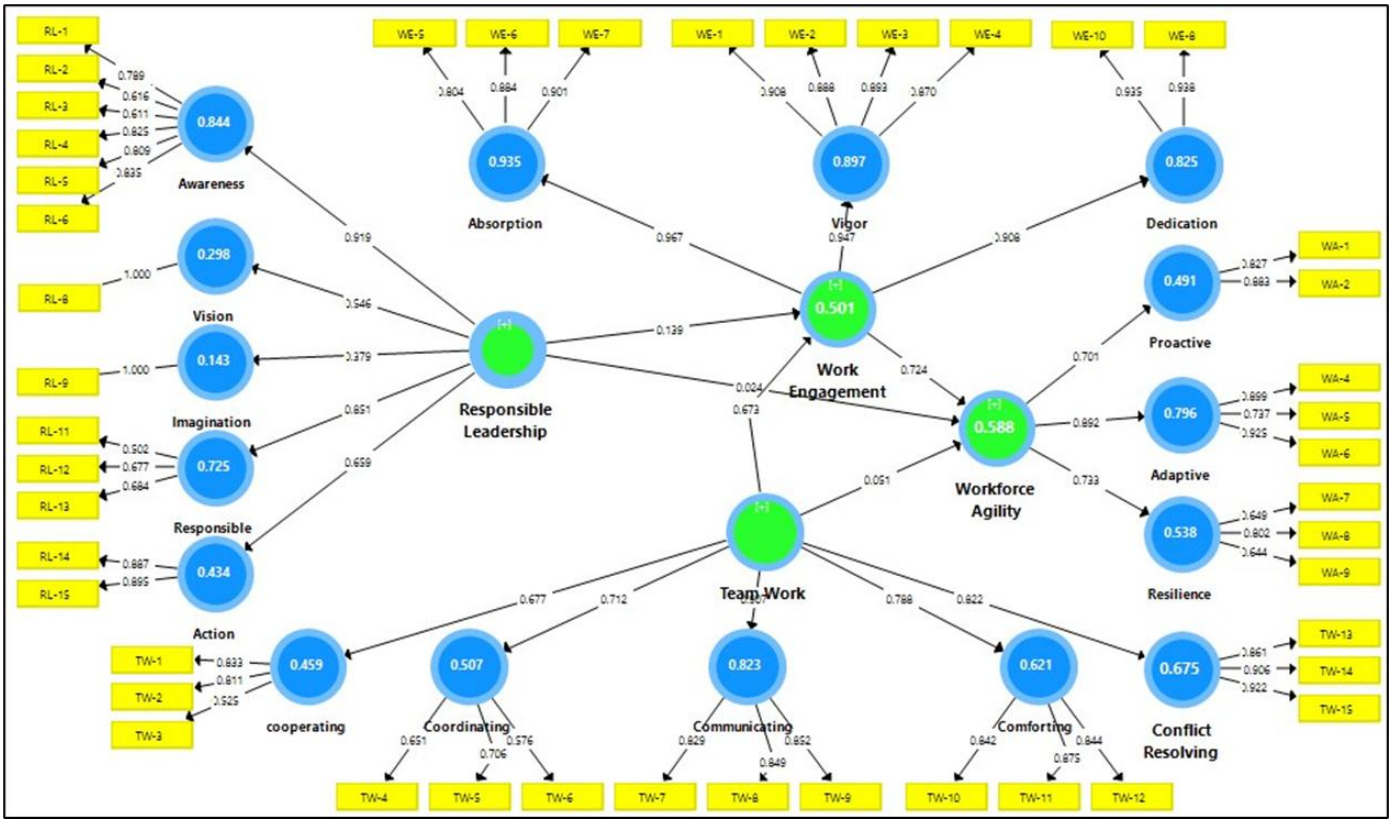

Figure 2. Modified Loading Factor Values in the Smart PLS Research Model

Table 8. Loading Factor Value

Variable	Dimensions	Indicator	Loading Factor	Terms	Results
Responsible Leadership	Awareness	RL - 1	0,789	>0.50	Valid
	Awareness	RL - 2	0,618	>0.50	Valid
	Awareness	RL - 3	0,611	>0.50	Valid
	Awareness	RL - 4	0,825	>0.50	Valid
	Awareness	RL - 5	0,809	>0.50	Valid
	Awareness	RL - 6	0,835	>0.50	Valid
	Vision	RL - 8	0,925	>0.50	Valid
	Imagination	RL - 9	0,999	>0.50	Valid
	Responsible	RL - 11	0,505	>0.50	Valid
	Responsible	RL - 12	0,671	>0.50	Valid
	Responsible	RL - 13	0,689	>0.50	Valid
	Action	RL - 14	0,885	>0.50	Valid

Variable	Dimensions	Indicator	Loading Factor	Terms	Results
	Action	RL - 15	0,897	>0.50	Valid
Team Work	Cooperating	TW 1	0,833	>0.50	Valid
	Cooperating	TW 2	0,811	>0.50	Valid
	Cooperating	TW 3	0,525	>0.50	Valid
	Coordinating	TW 4	0,651	>0.50	Valid
	Coordinating	TW 5	0,706	>0.50	Valid
	Coordinating	TW 6	0,576	>0.50	Valid
	Communicating	TW 7	0,829	>0.50	Valid
	Communicating	TW 8	0,849	>0.50	Valid
	Communicating	TW 9	0,852	>0.50	Valid
	Comforting	TW 10	0,842	>0.50	Valid
	Comforting	TW 11	0,875	>0.50	Valid
	Comforting	TW 12	0,844	>0.50	Valid
	Conflict Resolving	TW 13	0,861	>0.50	Valid
	Conflict Resolving	TW 14	0,906	>0.50	Valid
	Conflict Resolving	TW 15	0,922	>0.50	Valid
Work Engagement	Vigor	WE 1	0,883	>0.50	Valid
	Vigor	WE 2	0,841	>0.50	Valid
	Vigor	WE 3	0,821	>0.50	Valid
	Vigor	WE 4	0,823	>0.50	Valid
	Absorption	WE 5	0,804	>0.50	Valid
	Absorption	WE 6	0,884	>0.50	Valid
	Absorption	WE 7	0,871	>0.50	Valid
	Dedication	WE 8	0,916	>0.50	Valid
	Dedication	WE 10	0,924	>0.50	Valid
Workforce Agility	Proactive	WA 1	0,743	>0.50	Valid
	Proactive	WA 2	0,872	>0.50	Valid
	Adaptive	WA 5	0,737	>0.50	Valid
	Adaptive	WA 6	0,925	>0.50	Valid
	Adaptive	WA 7	0,650	>0.50	Valid
	Resilience	WA 8	0,802	>0.50	Valid
	Resilience	WA 9	0,642	>0.50	Valid

Table 9. Cross Loading Value of Each Variable and Research Indicator

	Responsible Leadership	Team Work	Work Engagement	Workforce Agility
RL-1	**0,715**	0,149	0,270	0,280

	Responsible Leadership	Team Work	Work Engagement	Workforce Agility
RL-1	**0,715**	0,149	0,270	0,280
RL-2	**0,461**	-0,041	0,000	-0,025
RL-2	**0,461**	-0,041	0,000	-0,025
RL-3	**0,613**	0,050	0,094	0,103
RL-3	**0,613**	0,050	0,094	0,103
RL-4	**0,810**	0,065	0,182	0,224
RL-4	**0,810**	0,065	0,182	0,224
RL-5	**0,720**	0,002	0,044	0,009
RL-5	**0,720**	0,002	0,044	0,009
RL-6	**0,765**	0,086	0,157	0,224
RL-6	**0,765**	0,086	0,157	0,224
RL-7	**0,203**	0,030	0,004	-0,085
RL-8	**0,546**	0,057	0,079	0,131
RL-8	**0,546**	0,057	0,079	0,131
RL-9	**0,379**	0,234	0,176	0,017
RL-9	**0,379**	0,234	0,176	0,017
RL-11	**0,308**	0,108	0,090	-0,041
RL-11	**0,308**	0,108	0,090	-0,041
RL-12	**0,645**	0,034	0,145	0,185
RL-12	**0,645**	0,034	0,145	0,185
RL-13	**0,569**	0,227	0,211	0,114
RL-13	**0,569**	0,227	0,211	0,114
RL-14	**0,577**	0,118	0,213	0,180
RL-14	**0,577**	0,118	0,213	0,180
RL-15	**0,597**	0,134	0,195	0,071
RL-15	**0,597**	0,134	0,195	0,071

	Responsible Leadership	Team Work	Work Engagement	Workforce Agility
WA-1	0,282	0,362	0,318	**0,543**
WA-1	0,282	0,362	0,318	**0,543**
WA-2	0,218	0,367	0,541	**0,650**
WA-2	0,218	0,367	0,541	**0,650**
WA-4	0,051	0,383	0,518	**0,789**

	Responsible Leadership	Team Work	Work Engagement	Workforce Agility
WA-4	0,051	0,383	0,518	**0,789**
WA-5	0,114	0,297	0,457	**0,608**
WA-5	0,114	0,297	0,457	**0,608**
WA-6	0,148	0,472	0,682	**0,870**
WA-6	0,148	0,472	0,682	**0,870**
WA-7	-0,021	0,269	0,200	**0,355**
WA-7	-0,021	0,269	0,200	**0,355**
WA-8	0,190	0,502	0,682	**0,661**
WA-8	0,190	0,502	0,682	**0,661**
WA-9	-0,030	0,080	0,243	**0,461**
WA-9	-0,030	0,080	0,243	**0,461**
WE-1	0,185	0,620	0,884	**0,669**
WE-1	0,185	0,620	**0,884**	0,669
WE-10	0,285	0,600	**0,842**	0,691
WE-10	0,285	0,600	**0,842**	0,691
WE-2	0,226	0,598	**0,842**	0,587
WE-2	0,226	0,598	**0,842**	0,587
WE-3	0,182	0,469	**0,820**	0,615
WE-3	0,182	0,469	**0,820**	0,615
WE-4	0,285	0,605	**0,823**	0,698
WE-4	0,285	0,605	**0,823**	0,698
WE-5	0,268	0,621	**0,761**	0,696
WE-5	0,268	0,621	**0,761**	0,696
WE-6	0,045	0,535	**0,870**	0,588
WE-6	0,045	0,535	**0,870**	0,588
WE-7	0,140	0,629	**0,872**	0,644
WE-7	0,140	0,629	**0,872**	0,644
WE-8	0,208	0,599	**0,858**	0,585
WE-8	0,208	0,599	**0,858**	0,585
WE-10	0,283	0,600	**0,842**	0,694
WE-10	0,283	0,600	**0,842**	0,694

	Responsible Leadership	Team Work	Work Engagement	Workforce Agility
TW-1	0,055	**0,600**	0,266	0,338
TW-1	0,055	**0,600**	0,266	0,338
TW-2	-0,091	**0,552**	0,342	0,385
TW-2	-0,091	**0,552**	0,342	0,385
TW-3	0,073	**0,271**	0,171	0,146
TW-3	0,073	**0,271**	0,171	0,146
TW-4	0,087	**0,281**	0,500	0,300
TW-4	0,087	**0,281**	0,500	0,300
TW-5	-0,001	**0,453**	0,377	0,308
TW-5	-0,001	**0,453**	0,377	0,308
TW-6	0,257	**0,545**	0,544	0,457
TW-6	0,257	**0,545**	0,544	0,457
TW-7	0,110	**0,741**	0,534	0,417
TW-7	0,110	**0,741**	0,534	0,417
TW-8	0,147	**0,806**	0,447	0,224
TW-8	0,147	**0,806**	0,447	0,224
TW-9	-0,052	**0,746**	0,372	0,407
TW-9	-0,052	**0,746**	0,372	0,407
TW-10	0,116	**0,644**	0,551	0,384
TW-10	0,116	**0,644**	0,551	0,384
TW-11	0,122	**0,576**	0,499	0,351
TW-11	0,122	**0,576**	0,499	0,351
TW-12	0,111	**0,767**	0,425	0,335
TW-12	0,111	**0,767**	0,425	0,335
TW-13	0,194	**0,758**	0,569	0,509
TW-13	0,194	**0,758**	0,569	0,509
TW-14	0,136	**0,727**	0,431	0,326
TW-14	0,136	**0,727**	0,431	0,326
TW-15	0,154	**0,722**	0,515	0,363
TW-15	0,154	**0,722**	0,515	0,363

The table above shows that this research can be declared valid based on cross loading analysis compared to other constructs, the cross loading value of the variable on the indicator is greater. The cross loading value, which indicates a strong correlation between the variable and its indicator, is greater than the value of other constructs (Ab Hamid et al., 2017).

Table 10. AVE Squared Results (Fornell -Lacker)

	Responsible Leadership	Team Work	Work Engagement	Workforce Agility
Responsible Leadership	**0,570**			
Team Work	0,154	0,634		
Work Engagement	0,242	0,594	0,805	
Workforce Agility	0,207	0,558	0,665	0,611

AVE values greater than 0.5 are considered an indication of good convergent validity. The Responsible Leadership variable has a root AVE of 0.570 greater than its correlation with Team Work (0.154), Work Engagement (0.242), and workforce agility (0.207) so that the discriminant validity of Responsible Leadership is met. The Team Work variable has a root AVE of 0.634 which is greater than its correlation with Workforce Agility (0.558). Work Engagement (0.594), so the discriminant validity of Team Work is met. The Work Engagement variable has a root AVE of 0.805 compared to Workforce Agility (0.665), indicating that the discriminant validity of Work Engagement is met.

Table 11. Composite Reliability and Cronbach Alpha values

	Cronbach's Alpha	Terms	Composite Reliability	Terms	Description
Responsible Leadership	0,823	≥0.60	0,860	≥0.70	Reliable
Team Work	0,883	≥0.60	0,904	≥0.70	Reliable
Work Engagement	0,934	≥0.60	0,947	≥0.70	Reliable
Workforce Agility	0,769	≥0.60	0,831	≥0.70	Reliable

Based on Table 11, it can be concluded that the research model is reliable or has reliability in measuring its variables. This is because the Cronbach's Alpha value is more than 0.50 and the composite reliability value is more than 0.7.

Table 12. R-square value

	R Square	R Square Adjusted
Work Engagement	0,501	0,485
Workforce Agility	0,588	0,568

Based on the coefficient analysis table above, it can be concluded that the R Square value of the joint or simultaneous influence of X1 and X2 on Y is 0.588 with an adjusted R Sqare value of 0.568 and for X1 and X2 on Z of 0.501 with an adjusted R Sqare value of 0.485. So it can be explained that all exogenous constructs (X1 and X2) simultaneously affect Y by 0.568 or 56.8% and for Z by 0.485 or 48.5%. The R Square value indicates that the level of determination of exogenous variables (Responsible Leadership and Team Work) on the endogenous is moderate.

Table 13. Q² Predictive Relevance

	SSO	SSE	Q² (=1-SSE/SSO)
Responsible Leadership	1005	1005	
Team Work	1005	1005	
Work Engagement	670	454	0,323
Workforce Agility	603	482	0,201

Based on the table above, it is known that the Q square value> 0 so that the predictive relevance of the Responsible Leadership and Team Work variables to Work Engagement and Workforce Agility is good and strong.

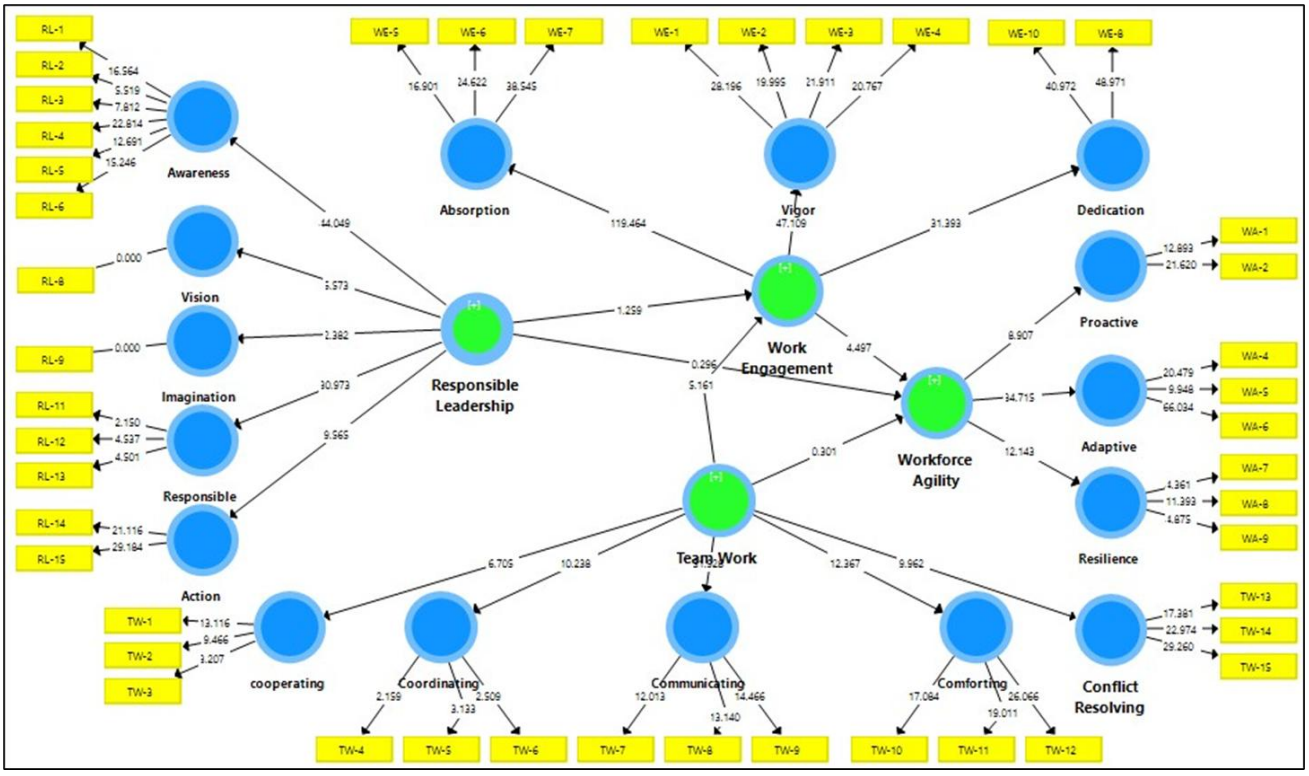

Figure 3. Bootsramping in the Smart PLS Research Model

Based on the figure above, it can be seen that each research variable has a dimension that has the greatest influence, namely:

a) The Awareness dimension has the greatest influence with a T Statistic value of 44.049 in the Responsible Leadership Variable.
b) The Communicating dimension has the greatest influence with a T Statistic value of 31.928 in the Team Work Variable
c) The Adaptive dimension has the greatest influence with a T Statistic value of 34.715 in the Workforce Agility Variable.

d) The Absorption dimension has the greatest influence with a T Statistic value of 119.464 in the Work Engagement Variable.

Table 14. Path Coefficient Values, t-Statistics, and P-Values

Relationship between constructs	Original Sample (O)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Description
Direct Relationship					
Responsible Leadership -> Work Engagement	0,139	0,110	1,259	0,104	**No significant effect**
Responsible Leadership -> Workforce Agility	0,024	0,080	0,296	0,384	**No significant effect**
Team Work -> Work Engagement	0,673	0,130	5,161	0,000	Positive and Significant
Team Work -> Workforce Agility	0,051	0,171	0,301	0,382	**No significant effect**
Work Engagement -> Workforce Agility	0,724	0,161	4,497	0,000	Positive and Significant
Indirect Relationship					
Responsible Leadership -> Work Engagement -> Workforce Agility	0,101	0,085	1,186	0,118	**Does not play a mediating role**
Team Work -> Work Engagement -> Workforce Agility	0,487	0,116	4,216	0,000	Play a mediating role

CONCLUSION

Based on the research results, Responsible Leadership is not able to drive an increase in Work Engagement, even when Awareness is the most dominant aspect. The same thing happened to Workforce Agility at PT NUS, where Responsible Leadership also had no effect even though Awareness remained the dominant factor. In contrast, Team Work proved to be able to increase Work Engagement, with Communicating as the strongest aspect. However, Team Work was unable to improve Workforce Agility, although Communicating remained the most prominent aspect. Meanwhile, Work Engagement positively contributes to increasing Workforce Agility, with Absorption being the strongest aspect in the relationship. However, in the context of mediation, Work Engagement was not able to mediate between Responsible Leadership and Workforce Agility at PT NUS, although on the other hand it was found that Work Engagement was also able to mediate the effect of Responsible Leadership on Workforce Agility.

REFERENCES

Ab Hamid, M. R., Sami, W., & Sidek, M. H. M. (2017). Discriminant validity assessment: Use of Fornell & Larcker criterion versus HTMT criterion. *Journal of Physics: Conference Series*, *890*(1), 012163.

Chikha, P., & Skorupski, J. (2022). The risk of an airport traffic accident in the context of the ground handling personnel performance. *Journal of Air Transport Management*, *105*, 102295. https://doi.org/10.1016/j.jairtraman.2022.102295

De Baets, S., & Harvey, N. (2020). Using judgment to select and adjust forecasts from statistical models. *European Journal of Operational Research*, *284*(3), 882–895. https://doi.org/10.1016/j.ejor.2020.01.028

Economy, E. C. (2021). *The world according to China*. John Wiley & Sons.

Guest, D. E. (2017). Human resource management and employee well-being: Towards a new analytic framework. *Human Resource Management Journal*, *27*(1), 22–38.

Lee, E. S., & Szkudlarek, B. (2021). Refugee employment support: The HRM–CSR nexus and stakeholder co-dependency. *Human Resource Management Journal*, *31*(4), 936–955.

Lini, I. Z., Soeling, P. D., & Liestiawati, F. I. D. (2020). Examine the Relationship between Leader's Emotional Intelligence and Internal Communication of Organization on Employee Engagement. *Journal of Advanced Research in Dynamical and Control Systems*, *12*(5), 529–538.

Lu, L., Peng, J., Wu, J., & Lu, Y. (2021). Perceived impact of the Covid-19 crisis on SMEs in different industry sectors: Evidence from Sichuan, China. *International Journal of Disaster Risk Reduction*, *55*, 102085. https://doi.org/10.1016/j.ijdrr.2021.102085

Mallen-Ntiador, T. N. E. (2017). Green marketing practices and customer satisfaction in selected hotels in Ghana. *Master of Philosophy (Marketing Option) Degree*.

Manroop, L., Zheng, H., Malik, A., Milner, M., Schulz, E., & Banerji, K. (2025). Human resource management in times of crisis: Strategies for a post COVID-19 workplace. *Organizational Dynamics*, *54*(1), 101060. https://doi.org/10.1016/j.orgdyn.2024.101060

Melanie Pfaff, Y., Judith Wohlleber, A., Münch, C., Küffner, C., & Hartmann, E. (2023). How digital transformation impacts organizational culture – A multi-hierarchical perspective on the manufacturing sector. *Computers & Industrial Engineering*, *183*, 109432. https://doi.org/10.1016/j.cie.2023.109432

Pusenius, K. (2019). *Agile mindset in the workplace: moving towards organizational agility*.

Scharp, Y. S., Breevaart, K., Bakker, A. B., & van der Linden, D. (2019). Daily playful work design: A trait activation perspective. *Journal of Research in Personality*, *82*, 103850. https://doi.org/10.1016/j.jrp.2019.103850

Soliman, M., Di Virgilio, F., Figueiredo, R., & Sousa, M. J. (2021). The impact of workplace spirituality on lecturers' attitudes in tourism and hospitality higher education institutions. *Tourism Management Perspectives*, *38*, 100826. https://doi.org/10.1016/j.tmp.2021.100826