

The Relationship between Authentic Leadership and Employee Creativity in Service Sector

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Abstract

Malaysia is falling behind in innovations study level though there are innovative activities going on. Hence, there is an urgent need to ensure service sector in Malaysia could continue for the growth of Malaysian's GDP. The objective of this study is to determine the level of authentic leadership, to determine the level of employee creativity and to identify the relationship between authentic leadership and employee creativity. A quantitative approach has been applied in this study. The study was conducted through the distribution of online survey among 214 employees in the service sector in Kulai, Johor with a response rate of 67.2%. The data collected from the study had been analyzed using both descriptive and correlation analysis by SPSS. The study revealed that there is no relationship between authentic leadership and employee creativity in the service sector.

1. Introduction

In the new era where technology is constantly being used as a major push to drive the world forward, organizations and companies must ensure their move is on par with the latest world development. In the process of working towards desired goals and objectives, there will be challenges they need to decipher. Finding solutions that require complex ways of thinking can possibly increase the employees' level of performance. Hence, recruiting employees with a high level of creativity and innovation level will help organizations to move forward in competing with others. To achieve an optimum level of employee creativeness and innovativeness, a skillful leader is needed to help in guiding and shaping them. According to Lee and Kim (2021), creativity plays a vital role for organizations and companies to survive and compete among competitors, which also affects the employees and organizations wellbeing. In cultivating employees' creativity at workplace, the type of leadership plays a role, different leadership style may affect employees' level differently. According to Rashid, Islam, Asif, and Ahmer (2019), authentic leadership can increase employee's creativity.

1.1 Research Background

Service sector in Malaysia takes up more than half of Malaysian economic growth (Malaysian Investment Development Authority, 2021). The growth of service sector is essential in maintaining Malaysian's GDP at a high level. Service sectors vary from financial sector, tourism sector, small medium enterprises (SMEs), food and beverages (F&B), retail, healthcare, and education. Aside from food and beverages and accommodation being the major subsector under service sector, wholesale and retail trade also contributes hugely to the Malaysian service sector. The overall revenue for these this major subsector was RM 428.2 billion in the first quarter of 2023. (Kamaruddin & Shamsudin, 2021; Department of Statistic Malaysia, 2023).

According to Khassawneh, Mohammad and Abdallah (2022), services sectors are being caused to the relation of employee creativity due to the introduction of new products in market. Employees' creativities are in terms of the way of promoting and establishing the product base in market. Employee's creativity also implies in throughout the system of organization and company not just in lower management. Leadership styles from the higher management are required to guide employees' ways through their job. Employee creativity without proper guidance from their higher management makes it difficult to nurture the creativity and innovation these employees have. Nevertheless, there are limited studies on authentic leadership and employee creativity among employees from the service sector, especially those from wholesale and retail trade. The wholesale and retail trade subsector are shown to give a significant contribution to the performance of service sector, rising the growth up to 7.6% in the third quarter of 2023 from RM 28.7 billion reaching to RM 446.6 billion (Nambiar, 2023).

1.2 Problem Statements

The level of employee's creativity and innovativeness level in Malaysia has been reported to be relatively low (Hussin & Kamal, 2023). Malaysia rank in the Global Innovation Index has been fluctuating and showing concerns to the economy. Generally, the GII improved in 2020 being at the 33rd position but then went down to 36th position in 2021 and 2022.

According to Ibrahim, Ismail and Awis (2018), to lead Malaysia in producing and being a more creative and innovative country towards the Vision 2020 (then), there is a necessary for Malaysia to further increase the level of creativity and innovation among labor forces. It is mentioned that Malaysia has only gone through halfway of the achievement of acquiring a good level of creativity and innovation, explaining there are still space for improvements. Some of those spaces that needs attention are in Malaysian's investment activities and the quality of workforces (Ibrahim et al, 2018 as cited in "Perspektif Wawasan 2020", 2017). Malaysia is falling behind in innovation studies level even though innovative activities are going on (Nasurdin, Tan & Khor, 2014). Previous studies found that authentic leadership could increase the level of innovation of employees (Mubarak & Noor, 2018; Bobo, 2019; Malik *et al.*, 2016; Muceldili *et al.*, 2013). Thus, this study aims to investigate the relationship between authentic leadership and employee creativity.

Therefore, to achieve the research objectives level of authentic leadership practiced by leaders in service sectors is determined. Furthermore, the level of employee creativity in service sectors also determined. Consequently, the relationship between authentic leadership and employee creativity among employees in the service sectors is identified.

1.3 Scope of the Study

This study focused on the relationship between authentic leadership and employee creativity. The employees' focus was on the service sector in Kulai, Johor, particularly those who are employed by retail and wholesale trade companies such as supermarkets. Employees under service sector are noted to grow every month especially under the major service subsector such as wholesale and retail trade, human health, and social work and in education (Department of Statistic Malaysia, 2021). This shows that the service sector contributes to Malaysia's economic growth and household income. The survey was conducted on a sample of employees in the service sector working in supermarkets from various supermarkets in Kulai.

1.4 Significance of the Study

This study aims to contribute to knowing how authentic leadership style affects the increase of employee's creativity. It covers giving in-depth understanding regarding the authentic leadership style and the four dimensions of self-awareness, relational transparency, balance processing and internalized moral perspectives. The sector focused on this study is the service sector, in retail and wholesale trade. This study can be used for companies to take into consideration how different leadership styles, such as authentic leadership may help to enhance their organization's work culture through the blend of employee's creativity. Practicing high and dynamic level of solving skills with employee creativity can help companies and organizations to move their goals forward and face challenges flexibly.

2. Literature Review

This chapter discusses the literature of the variables found in this study including authentic leadership, employee creativity and the relationship between authentic leadership and employee creativity.

2.1 Employee Creativity

Creativity has been an asset to organizations and companies as these characteristics influence the overall employees and organizations well-being (Lee & Kim, 2021). According to Bobo (2019), creativity is the production of several contrasting but useful ideas. While employee creativity is "the generation of novel and useful ideas"

(Chen *et al.*, 2022; Amabile, 1988; Yu *et al.*, 2019; Lee & Kim, 2021). A creative employee implies that the employee can perform his/her task in a suitable working environment.

According to Chen *et al.* (2022), creativity at work involves the employee to take part in identifying problem, scanning the environment situation, collecting data, making solution to development and assessment, and executing the solution all these while managing obstacles creatively. Creativity as elaborated by Dario (2019) is subjective as some people view being creative as part of natural talent while some others perceive it as a restricted and controlled process linking it to the potential of elaborating through logics of knowledge and creativity of the components itself. According to Ierides (2014), creativity is a set of distinguishable problems that can be resolved through the implementation of innovations into the problem while innovation is a component of creativity.

Osama *et al.* (2022), believes that positive outcomes from a job or task that is done with employees creative problem-solving skills are possible. Working creatively does not focus on thinking dynamically in finishing one's job, but handling several works that require different levels of thinking is also being creative. Employees who multitask their job would creatively need to divide the different leveled tasks diligently to get it done in time. According to Sembajwe *et al.* (2022), supervision of employee ignites their creativity level, with various influencing factors such as through role modeling, reward allocation, communication of organizational norms and values, employee creativity may be shaped. This allows employees contribution in applying their ideas of creativity with a sense of self-assurance. With the supervision and attention given to monitor employees while working, it develops motivational support for employees, either intrinsic or extrinsic motivation, it further aids to regulate creative insights for the use of the organization. According to Hon (2008), many creativity aspects among employees were motivated through intrinsic motivation. Employee creativity can consequently be influenced by the organizations' support of creative processes (Ierides, 2014). Although presenting a positive response from supervisor to employees can increase employee's creativity level, certain studies that the creativity level of employees may decline under tight supervision or close monitoring (Mubarak & Noor, 2018).

2.2 Theory of Employee Creativity

The components of creativity are most discussed in the work of Amabile (1988), that elaborates on the influences of creativity are relied on domain-relevant skills, creativity-relevant process, and task motivation. The extrinsic component is the social surrounding environment (Amabile, 2013). The domain-relevant skills are those that include the content of the knowledge, competence, practical skills, intelligence, talent and raw products or materials that are from the root of the problem. Working around and juggling with all these components can build the solution to the problem creatively and innovatively. These characteristics are open and often involves working in a risky environment with orderly work style in producing ideas (Amabile, 2013).

According Research from Amabile (2013) shows that a positively built social environment such as, collaboratively working teams, diversified skills among employees and ideas-centered environment gives better chance for employees to be creative. Some companies use in the help of tools to increase extrinsic motivation for employees as part of the effort in creating creative environment working situation (Gephart, 2018). Creativity is seen as a mixed of several complex factors and dimensional phenomenon that is not only obliged to the individual and cognitive characteristics, but also are affected by the psychosocial and environmental influences on the variables intricated during the whole creation process (Perez, 2020)

Seo (2021) view employee creativity that is generally guided based on three major views: personal, contextual, and interactionist views. Seo describes the personal aspect as the aspect of acquiring intrinsic motivation regarding the idea to the creativity, it is when an individual likes the challenging feeling and feels rewarding solving a problem creatively. While contextual is when a highly driven individual with high level of creativity is prone in showing interest or portrays in these three elements. Interactionist view is the relationship of individuals characteristics with other contextual and environmental factors.

According to Naizm *et al.* (2021), employees tend to display a more novel and effective creative work when they fulfil their task creatively. A more useful idea generation is created, with better techniques and execution of resources to ensure efficiency of resource allocation as sustainability in managing resources is marked as a critical component (Song *et al.*, 2020). Achieving a greater organizational growth and development to adapt and survive in the global modern market is made assured with new product or service creativity based is operated (Naizm *et al.*, 2021). As employee creativity and innovation aspect is being widely known in many sectors, organizations are now in demand for employees with competitive creativity level and focus in researching for employees with such attribute (Brown, 2022).

2.3 Authentic Leadership

According to Bobo (2019), the employment of authentic leaders in organizations is vital to control the massive and busy workloads in management as well as to aid employees in working their way to achieve superior work quality. Authentic leadership has been the center of attraction in organizations as it aids organizations and

companies in getting better company growth and value by having leaders to help followers find connection and a sense of purpose in their workplace (Walumbwa *et al.*, 2008).

According to Malik *et al.* (2016) leaders who apply authentic leadership style in the work progress can shape a real and sustained performance among their employees or followers through a comprehensive environment. With a suitable environment, employees can execute their creativity by learning and extending their knowledge constantly.

In modern organization managements, there may occur situations that unfavored towards either the organizations internally or the surrounding externally, according to Khan (2010), there has been a rise in unethical scandals and financial misconduct and leadership among upper management in some organizations, which resulted to the need in the execution of authentic leadership style to be focused on. He emphasizes the need for authentic leadership style study to be applied due to the nature of authentic leadership style of honesty and having ethical and moral values. Authentic leaders emphasize ethical values and do not change their stance in attitudes nor practices and behaviors (Ucar *et al.*, 2021).

2.4 Theory of Authentic Leadership

Authentic leadership according to Walumbwa *et al.* (2008), is a model consisting of the way a leader behaves, that attracts positive psychological abilities and a positive ethical surrounding, which further allow the adoption of self-awareness, internalized moral perspective, balanced processing information and relational transparency for leaders to instill in their followers, affecting a beneficial self-development. These four components mentioned by Walumbwa *et al.* (2008), produce the four dimensions of authentic leadership style.

2.4.1 Self-awareness

Self-awareness is looked upon as a psychological and a reaction process of how an individual sees themselves internally as their true self and they can recognize their own talents and values (Petan, 2016; Gardner *et al.*, 2011). An authentic leader with self-awareness would stand by their core beliefs that do not change even when affected by others. An authentic leader is also willing to improve in the future by taking in critics positively to grow themselves, it is an on-going progress and does not stop at any point, leaders or the individual may gradually improve by re-reviewing their faults, flaws, and strength (Petan, 2016, as cited in McMasters, 1999; Muceldili *et al.*, 2013).

2.4.2 Relational Transparency

Researchers defined relational transparency as the responsibility a leader holds on their followers or a leader's responsibility toward their employees in an organization (Bobo, 2019, as cited in, Illies *et al.*, 2005. According to Mubarak and Noor (2018), when an authentic leader is thrilled in presenting their opinions and view on a certain topic, they are open in sharing their ideas and thoughts to inspire their employees in doing the same. This builds a safe and motivated environment for the employees or followers to express their ideas openly and take opportunity in being involved (Rego, Sousa, Marques & Cunha, 2012).

2.4.3 Balanced Processing

Balanced processing defined as where decision-making processes are being done partially, using information and relevant data that has been gathered carefully in detail (Mubarak & Noor, 2018). Walumbwa *et al.* (2008), states that before the leader settle for a decision, he needs to fairly analyses the data gathered, and seek for other opinions or views that may oppose the current decision made to ensure the righteous decision are placed in the best interests of the organization's objective. An authentic leadership style portraying a balanced processing criterion, with a balanced stand points and attitude showcases an open and free of bias working environment.

2.4.4 Internalized Moral Perspective

Internalized moral perspective according to Rashid *et al.* (2019), is the extent to which a leader decides based on his or her internal beliefs on moral values and exerts the actions according to the lines of moral values they have mentioned, and the decisions are not influenced by their environmental surroundings pressure such as different oriented views or opinions. leaders should have a self-regulatory drive in fulfilling behavioral integrity and to distinguish their actions between the righteous values (Walumbwa *et al.*, 2008). Gardner (2011) defined internal moral perspective as an unbiased processing of decisions with relational orientations and behavioral components a leader should possess.

2.5 The Relationship between Authentic Leadership and Employee Creativity

Many researchers have pointed out a strong view on how they perceive that authentic leadership encourages employees' creativity (Walumbwa *et al.*, 2008; Mubarak & Noor, 2018; Zeb *et al.*, 2019, as cited in Sanda *et al.*,

2017). Mubarak and Noor (2018), discuss that the employees’ creativeness that derives from authentic leadership style is based on how the leader’s ability to reinforce employees’ mental motivations to come up with creative moves that makes the feel seen and genuine. There have been several studies that support the authentic leadership style to have a significance on employees’ creativity (Walumbwa *et al.*, 2008; Rego *et al.*, 2014). Nonetheless there are also few studies that show an insignificant relationship between authentic leadership and employee creativity (Onyonye, 2023; Sumanth *et al.*, 2023). This could result from factors such as the working environment as well as the culture of the work. Some work culture follows a regulated standard or procedure, requiring them to have rules and regulations that cannot be simply changed under an individual’s creativity act.

A moral leader with relational transparency and internalized moral perspective are keen in relaying their opinions and comments regarding work matters to their subordinates in a respectful way. This in return cause employees to have a better and higher level of self-confidence. Employees are drawn to learn on a continual basis under such leadership style which results in the organization to be more strategically competitive.

Working environments can be a mess and chaotic with massive workloads, therefore, a leader is needed, specifically leaders with authentic leadership style. Authentic leaders guide employees to keep in line with the organizations’ objective through their adeptness in facing chaotic work environments and constructing decisions and instructions (Mubarak & Noor, 2018). Since authentic leaders have an upright principle in their words, values, and beliefs that align with their actions, they foster an open and sincere relationships with their followers. It allows a safe working space where employees can converse and learn from one another through knowledge-sharing, hence adopt creativity among employees (Khan *et al.*, 2019).

The four components suggested by Walumbwa *et al.* (2008), which comprise relational transparency, self-awareness, balanced processing, and an internalized moral perspective, all reflect authentic leaders’ readiness in managing the organization. An authentic leader is expected to benefit the organization by constructing more creative workers. Hence, the following hypothesis is proposed:

H1: There is a relationship between authentic leadership and employee creativity.

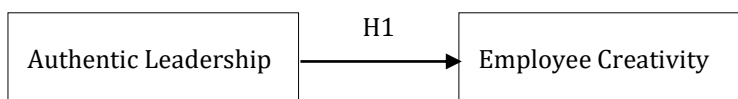


Fig.1 Conceptual Framework

Fig. 1 shows the conceptual framework used in this study. The dependent variable is employee creativity and the independent variable authentic leadership.

3. Research Methodology

The research applied the quantitative data method and an online survey to establish the association between authentic leadership and employee creativity among service sector employees in Kulai, Johor. The statistical data collected for this study will be discussed in the further chapter, with analysis was done using SPSS.

3.1 Research Design

The research design is in the form of a survey questionnaire, as the tool for data collection regarding the topic, the relationship between authentic relationship and employee creativity. The online survey form was distributed to supermarket employees sampling from Kulai, Johor to match the service sector that had been chosen as focus of the study. The number of populations is 292 employees from supermarkets in Kulai. According to Krejcie and Morgan (1970), 165 employees are the appropriate sample size selected as respondents in the study.

3.2 Data Collection

This research applies quantitative method by the distribution of questionnaire survey. Primary data was obtained through the distribution of online questionnaire research that has been distributed to employees working in supermarkets in Kulai, Johor using Google Form. Secondary data were obtained from previous research studies and articles from a few websites and Tunku Tun Aminah Library websites. The sources from Tunku Tun Aminah Library websites are gained through their databases such as Scopus and ProQuest. Secondary data gathered from various online resources aids this research to get wider range of information regarding the topic.

3.2.1 Research Instrument

A questionnaire often combines closed-ended questions with open-ended questions and queries. This survey collected relevant information from respondents that can be applied for multiple purposes. The questionnaire for

this study is divided into three study sections: Section A, B and C. Section A is to identify the demographic information of respondents, using ordinal and nominal scales in measuring the respondents' answers. Section B is to measure the authenticity leadership of the employees' leaders namely on self-awareness, internalized moral perspectives, balanced processing, and relational transparency. Section C is to measure employee creativity.

Table 1 *Research Instrument*

Section	Items	Source
A	Demographic	
B	Authentic Leadership	Walumbwa, Avolio, Gardner, Wernsing, & Peterson (2008)
C	Employee Creativity	Zhou & George, (2001)

The response will be using the five-point Likert scale format and the answer categories from "strongly disagree" (1) to "strongly agree" (5). The Likert scale format is shown in Table 2.

Table 2 *Likert Scale*

Scale	1	2	3	4	5
Description	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

3.3 Data Analysis

In this stage, statistical software is applied to evaluate the quantitative data for this research. The statistical software used is Statistical Process for Social Science (SPSS) version 27. All questionnaires were checked for accuracy and readiness and then imported into the SPSS system for screening and further coded and edited for analysis.

3.3.1 Descriptive Analysis

The descriptive analysis implemented in this research is mainly used to explain the questionnaire's basic features, which is the background information or demography of employees who filled in the survey. Data analysis helps in providing a simple summary of the sample taken from provided data where it is measured using precise values such as the mean, median etc as well as the level of authentic leadership and the amount of employee creativity.

3.3.2 Correlation Analysis

There are two common analyses in determining a correlation analysis, which are Pearson's correlation and Spearman's correlation analysis. This study explores the relationship between authentic leadership and employee creativity among employees in the service sector where the strength of correlation between these two variables are measured using the Spearman correlation.

4. Result and Discussion

This stage discusses the findings and interpretation of data gathered from the questionnaire. This analysis was carried out using software Statistical Package Social Science (SPSS) version 27, and encompasses the analysis, presentation, and interpretation of the study's results. Based on the findings of the questionnaire, the analysis.

4.1 Response Rate

The total number of questionnaires distributed in an online form of a Google form in supermarkets in Kulai was to 292 employees working in the service sectors. Through the distribution, only 111 answered the questionnaire. The response rate recorded for this study is 67.2%.

4.2 Reliability Analysis

4.2.1 Pilot Test

Table 3 Pilot Test

Variable	Cronbach's Alpha	N-Items in Scale	N-Respondent
Authentic Leadership	0.72	16	15
Employee Creativity	0.94	13	15

Table 3 shows the reliability test of a pilot study where 15 respondents were picked to conduct the test the reliability of the data. The independent variable is authentic leadership while dependent variable is employee creativity, both recorded Cronbach Alpha value of 0.72 and 0.94 respectively. Authentic leadership has an acceptable Cronbach Alpha value of 0.72. While employee creativity has an excellent Cronbach Alpha value above 0.90 which is 0.94. Both values of Cronbach Alpha show acceptable and excellent internal consistency indicating the questionnaire is reliable and the data collection can proceed.

4.2.2 Reliability Test

Table 4 Reliability Test

Variable	Cronbach's Alpha	N-Items in Scale	N-Respondent
Authentic Leadership	0.72	16	111
Employee Creativity	0.96	13	111

Table 4 shows the reliability test result for the actual study of the research with a total respondent of 111 for both variables. The independent variable of authentic leadership recorded a good value of Cronbach Alpha of 0.72 while dependent variable of employee creativity has excellent Cronbach Alpha value of 0.96. The good and excellent Cronbach Alpha value indicates that the study is reliable to be conducted.

4.3 Descriptive Analysis

Table 5 presents the summary of demographic analysis conducted from the research. To summarize, the demographic profiles of respondents comprise five key questions addressing the gender, age, level of education, employment status and working experience of the respondents. For gender, the majority of the respondents are male (52.3%) between 21-30 years old (67%) had a diploma level of education (33.3%), doing part time (52.3%) and have working experience between 1 to 5 years (54.1%).

Table 5 Summary of Demography Analysis

Item	Frequency	Percentage (%)
Gender		
Male	58	52.3
Female	53	46.7
Total	111	100.0
Age		
18-20 years old	31	27.9
21-30 years old	67	60.4
31-40 years old	12	10.8
More than 41 years old	1	0.9
Total	111	100.0
Level of Education		

	Primary School	9	0
	Secondary School	30	27.0
	Pre-university	19	17.1
	Diploma	37	33.3
	Degree	16	14.4
	Master	2	1.8
	Other	7	6.3
	Total	111	100.0
Employment Status			
	Full time	53	47.7
	Part time	58	52.3
	Total	111	100.0
Working Experience			
	Less than 1 year	39	35.1
	1 to 5 years	60	54.1
	6 to 10 years	11	9.9
	More than 11 years	1	0.9
	Total	111	100.0

4.4 Descriptive Analysis of Authentic Leadership

Table 6 *Authentic Leadership*

No.	Item	Mean	Std Deviation	Level
Self-Awareness				
1	My leader solicits feedback for improving his/her dealings with others.	3.65	.770	High
2	My leader describes accurately the way that others view his/her abilities.	3.72	.728	High
3	My leader shows that he/she understands his/her strengths and weaknesses.	3.95	.644	High
4	My leader is clearly aware of the impact he/she has on others.	3.92	.676	High
Internalized Moral Perspectives				
1	My leader shows consistency between his/her beliefs and actions.	3.91	.581	High
2	My leader uses his/her core beliefs to make decisions.	3.98	.572	High
3	My leader resists pressures on him/her to do things contrary to his/her beliefs.	3.69	.685	High
4	My leader is guided in his/her actions by internal moral standards.	3.61	.620	High
Balanced Processing				
1	My leader asks for ideas that challenge his/her core belief.	3.72	.876	High
2	My leader carefully listens to alternative perspectives before reaching a conclusion.	4.30	.627	High

3	My leader objectively analyses relevant data before making a decision.	4.35	.683	High
4	My leader encourages others to voice opposing points of view.	4.12	.817	High
Relational Transparency				
1	My leader clearly states what he/she means.	4.19	.611	High
2	My leader admits mistakes when they occur.	3.77	.817	High
3	My leader openly shares information with others.	4.23	.674	High
4	My leader expresses his/her ideas and thoughts clearly to others.	4.32	.618	High
Total		3.964	.687	High

Table 6 presents the mean and standard deviation level for authentic leadership; the mean is 3.96 with a standard deviation of 0.685. The item with the highest mean and standard deviation is the item 'My leader objectively analyses relevant data before making a decision.' with a mean of 4.35 and standard deviation of 0.683. The item with the lowest mean of 3.61 is 'My leader is guided in his/her actions by internal moral standards.' that has standard deviation 0.620. Overall, authentic leadership has a high central tendency range reflecting that the level of authentic leadership is at a high level in sector.

4.5 Descriptive Analysis for Employee Creativity

Table 7 Employee Creativity

No.	Item	Mean	Std Deviation	Level
1	I suggest new ways to achieve goals.	2.91	1.092	Medium
2	I come up with new ideas to improve performance.	2.98	1.104	Medium
3	I search out new service ideas.	2.79	1.0880	Medium
4	I suggest new ways to increase service quality.	3.12	1.077	Medium
5	I am a good source of creative ideas.	2.50	1.159	Medium
6	I am not afraid to take risk.	3.31	1.025	Medium
7	I promote the champion ideas to others.	2.67	1.193	Medium
8	I exhibit creativity on the job when given opportunity to.	3.31	1.118	Medium
9	I develop adequate plans for the implementation of new ideas.	2.63	1.213	Medium
10	I often have innovative ideas.	2.48	1.111	Medium
11	I come up with creative solutions to problems.	2.85	1.080	Medium
12	I often have a fresh approach to problems.	2.93	1.033	Medium
13	I suggest new ways of performing work tasks.	3.19	0.837	Medium
Total		2.90	0.888	Medium

Table 7 displays the means and standard levels for employee creativity, indicating a total mean of 2.90 and a standard deviation of 0.888 categorized as medium level. There are two items with the highest mean value of 3.31, which are item 'I am not afraid to take risk.' and 'I exhibit creativity on the job when given the opportunity to.', both have a standard deviation value of 1.025 and 1.118 respectively. The lowest mean value is 2.48 for item 'I

often have innovative ideas.' with a standard deviation value of 1.111. In general, employee creativity has a medium central tendency range indicating that the level of employee creativity is at a medium level.

4.6 Normality Test

Table 8 Normality Test

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Authentic Leadership	.078	111	.092	.934	111	.001
Employee Creativity	.105	111	.004	.967	111	.008

a. Lilliefors Significance Correction

Table 8 shows the result of normality test using Kolmogorov-Smirnov to determine the normality of the data of the study. Based on the results acquired from the questionnaires of 111 respondents, the independent variable, authentic leadership shows a non-normal value of below 0.05, while the dependent variable, employee creativity displays a normal value of more than 0.05. To conclude the normality test, the results shown are not normal.

4.7 Correlation Analysis

Table 9 The Correlation between Variables of Authentic Leadership and Employee Creativity

		Authentic Leadership	Employee Creativity
Spearman's Rho	Authentic Leadership	1.000	.173
			.070
		111	111
	Employee Creativity	.173	1.000
		.070	.
		111	111

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

Table 9 shows that Spearman correlation conducted to evaluate the relationship between authentic leadership and employee creativity. The value relationship between authentic leadership and employee creativity was not significant, r , correlation coefficient value for authentic leadership and employee creativity is 0.173 with a non-significant p -value > 0.01 . This shows that there is no correlation between authentic leadership and employee creativity. Hence, the hypothesis (H1) is rejected.

5. Conclusion, Discussion and Recommendation

5.1 Level of authentic leadership practiced by leaders in service sectors

From the analysis conducted, the authentic leadership practiced in the service sectors, supermarket industry is relatively high based on the total average of mean for authentic leadership variable with a value of 3.96 and the total standard deviation is 0.305 indicating a high level. These results prove that the respondents strongly agree on the level of authenticity of leadership shown by their leaders. Authentic leadership itself consists of four dimensions; self-awareness, balanced processing internalized moral perspective and relational transparency.

Rego *et al.*, (2014) supported the item of questionnaire, item "My leader objectively analyses relevant data before making a decision." that recorded a high level of mean, 4.35. Rego noted that leaders' balance processing provides a sense of acceptance to view diverse perspectives on the root problems and the potential solutions, given that leaders in service sector have higher decisions making power and needs to lead their subordinate alone, any decisions they came up with will be held responsible to them, if any mistakes were to occur, the upper management will firstly question and consult them. Flaw and biased decisions may exist in daily operation of

leaders, hence authentic leadership with the aspect of balanced processing are needed in ensuring decisions and actions are made justifiably (Walumbwa *et al.*, 2008).

The level of authentic leadership shows a high value of mean indicates that the leaders in service sector implement such characteristic in themselves contributing positively to work value. Leaders are linked to minimize ambivalence in giving orders as proposed by Gardner *et al.*, (2011) and being in the service sector, they must ensure the decision they pass down to subordinates are the right one as they are the only one in high management that is responsible upon those who work under them at the supermarket, and most of the employees are doing their tasks based on instructions given, employees in the supermarket does not have autonomy to simply decide on what decision to be made. Hence, balanced processing is vital for authentic leaders to have in the service sector justified the high level of means. On the other aspect of relational transparency of a leader in being authentic leader, they must be clear and strong as the attribute influence employees' engagement of trust and further increases them to integrate creativity in work. With leaders showing transparency in their comments and the way they do work, it serves as an enrichment to gain subordinates trust because employees view their working environment of the organization based on trust (Zeb *et al.*, 2019).

5.2 Level of employee creativity among employees

The findings indicate that the employees within the supermarket service sector industry averagely demonstrated the creativity level. Through the analysis of 13 items related to employee creativity in the data, they all exhibit a fair level. The overall mean calculated for employee creativity is 2.90 with a standard deviation of 0.888 signifying a medium level. The outcome shows medium level of creativity among the employee in service sector, indicating there is an average integrations of creativity skills and ideas displayed by the employees in their work due to the contextual factor of working environment and job characteristics on the duty fulfilment of individuals (Brown, 2022; Dario, 2019). They also do not need to focus on daily meetings and intense discussions between coworkers as part of inventing creative solutions and products to challenges (Adeel *et al.*, 2022; Dario, 2019).

Adeel (2022) states that communication process with coworkers is part of the flow in generating creative ideas. Service employees in supermarkets, a cashier as an example does not require them to apply creative thinking skills and intensive communication between coworkers in conducting daily transactions between customers. The intermediate job complexity differs unlike employees from engineering sector that may require them to be creative in solving complex job design (Brown, 2022). Bobo (2019) and Chen *et al.*, (2022) mention the types of creative work ideas and innovation include having the workforce to do exploratory and exploitative innovation supported by leaders, these situations are not reflected in the service sector as employees in the sectors do not explore for job activities, but they are working based on guideline and instructions provided. This shows that they do not foster any creative thinking skills heavily.

In service sector, there is no creativity relevant process as the work does not take any new perspectives in issues, Amabile (2013) noted factors can cause creativity have the relation to the existence of diversely skilled team with freedom in carrying out the work driven by idea-focused, service sector working design can be seen to not portray these factors, instead they are working based standardized operation guideline under supervision of managers and supervisor. Routine job in the service sector the routinize job involves low risks level the creative process, but creativity as mentioned by Mostert, 2007 in Ierides (2014) involves high level of risk that could result in the loss of organizations' valuable resources as part of the creative process. The study from Naizm *et al.*, (2021) brought up that task or job complexity is a moderator between intrinsic motivation and employee creativity, when a job complexity is low, the creativity level required is low, employees in supermarket in the service line portrays a minimal task complexity activity compared to higher ups or managers that needs to handle mental an technical problem-solving required tasks which justifies the moderate result of employee creativity level from this study.

5.3 Relationship between authentic leadership and employee creativity among employees in the service sector

The data analysis performed on the relationship between authentic leadership and employee creativity exhibits that there is no relationship between the independent and dependent variables. The value of Spearman's rho correlation is $r=0.173$ but with an insignificant value. This results in the hypothesis to be rejected. The authentic leadership practiced in supermarkets in the service sector does not influence creativity among employees working in the sector in Kulai, Johor.

Although many studies have shown a positive relationship between authentic leadership influences employee creativity (Walumbwa *et al.*, 2018; Malek *et al.*, 2018; Mubarak & Noor, 2018, Rego *et al.*, 2014), the result from this analysis showed the opposite. Considering the research is done among supermarket employees in the service sector, the level of creativity displayed among them is low due to the nature and requirement of work. For authentic leaders to empower their leadership is by having them not only be confident in the employees' abilities (Zhang & Zhou, 2014) but they need to include and engage the employees in the decision-making process, which in supermarkets services there are not much intense decision that needs the engagement or decisions involving

lower ranked employees who does routine task. Therefore, in the supermarket working environment, employees are not exposed to intense decision-making process, thus does not facilitate them with a creativity ground to work on, resulting to lower level of creativity although when leaders possess high authenticity leadership value. This study is supported by a study from Ononye (2023), who found that there is an insignificant relationship between authentic leadership with creativity in a job stating that due to bureaucratic factors, it hinders the creative process of employees. The bureaucratic pattern is to make sure there is uniformity and control within an organization, hence with such practice in the organization, employees are not encouraged and motivated to work creatively outside their imagination. A different study conducted by Sumanth *et al.* (2023), also shows there is an insignificant relationship between the effect of authentic leadership on employees' creative performance supporting the findings from this study.

5.4 Limitation of Research

Due to lack of support from respondents, the data collection was unable to achieve a higher percentage of response rate. Respondents may easily access the link to fill in the questionnaire whenever they have the time to, but often overlooked because they are busy during the working hours. Most of the service sector employees are usually not allowed to have their phone with them during working hours, hence it is difficult to get them to fill in the link when approached. And after working hours or during recess time, they may forget to fill in the questionnaire. They may also answer the questionnaire without putting much thought in choosing the answer or biased during answering. However, the researcher is trying to provide the best so this research can benefit other research studies with the same dimension.

Other limitations occur including the validity of the result. The questionnaire survey used quantitative method of a numeric scale of 1 to 5 to indicate whether they agree or disagree with the statement instead qualitative method of asking the respondents for their opinions and based on experience. The numeric scale answer may limit the respondents to answer based on what has been provided and they may not be able to give other subjective answer resulting to unfairness in the data collected. Hence, it is difficult to determine the actual behavior of the respondents based on the result from the questionnaire they answered.

Other limitations may include the scope of the research. Since the research are being done in the service sector in Kulai, Johor, it amounts to only part of the sample size particularly from mentioned geographic location and are not presenting the whole service sector from Johor or Malaysia. Therefore, the only involvement of the service sector is on a smaller scale from Kulai, Johor. Even so, the research can be widened to not only the service sector but also to the education sector, health sector, agriculture sector or manufacturing sector. Depending on the sector, the result and analyses may differ compared to the result derived from respondents in the service sector.

5.5 Recommendation of Study

Firstly, researchers can engage with the respondents often, so they are aware of the questionnaire that needs to be filled in. Regular reminders can be sent to alert them. The duration for the respondents to answer the questionnaire should also be lengthen and given appropriately, by giving them more time to answer the questionnaire, a more significant result can be gathered instead of the respondents feeling rushed to answer or simply answering without thinking much the choice of their answer.

Another recommendation is for the future researcher to employ a blend of research methodology encompassing both qualitative and quantitative analysis approaches. This study particularly applies the quantitative analysis approach. But future researchers may opt for the quantitative approach for a more diverse choice of answer from respondents, that may provide them with insightful results and varied ideas based on the experience and opinion rather than a fixed option through numbering scale through interviews. The combination of these two approaches also potentially fills the study with more detailed and valuable information.

Next, future researchers should consider the study to be conducted in various regions or states. The current study is focused in Kulai, Johor, resulting of the findings to be limited. Future researchers could expand their focus to a more extensive geography scope to enhance the result and ensure more universal data are collected. By increasing the geography scope to a wider area, the number of respondents may be increased at the same time, obtain more validity and reliability result of the data.

5.6 Contribution of Study

5.6.1 Contribution to Literature Review

The researcher aims for this study to deeply help in enriching the understanding of readers and future researchers in exploring this specific topic. It is hoped that the study will be a valuable resource for future researchers in finding materials and resources related to this topic. Additionally, the study is hoped to raise awareness about the significant relationship between authentic leadership and employee creativity.

5.6.2 Contribution to Organization and Practitioner

This study also provides valuable insights to organizations and practitioners alike. The research offers guidance to organizations and companies in the service sector of the link between fostering employee creativity and authentic leadership style to their working environment. Moreover, it will also help organizations in taking note of the specific leadership style they can implement in management by comparing to the leadership style discussed in this research.

6. Conclusion, Discussion and Recommendation

7. This Online License Transfer

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Conflict of Interest

Authors declare that there is no conflict of interests regarding the publication of the paper.

Author Contribution

*The authors confirm contribution to the paper as follows: **study conception and design:** N.A.A. and E.W.; **data collection:** N.A.A.; **analysis and interpretation of results:** N.A.A. and E.W.; **draft manuscript preparation:** N.A.A. and E.W. All authors reviewed the results and approved the final version of the manuscript.*

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