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JEL Classification: L32, M10, O31

Authentic Leadership, Leader-Member Exchange, Job Thriving and Creativity Nexus from Public Organisation Context

U. H. ONONYE ‡

Purpose: The study is aimed at examining authentic leadership influences on creativity in a public organisation given job thriving and leader-member exchange as a mediator and a moderator respectively.

Design/Method/Approach: The cross-sectional research design was adopted with data collected via a structured questionnaire from 269 mid-level employees who were healthcare professionals working in hospitals and primary healthcare centres under the purview of the Delta State Ministry of Health in Nigeria. The partial least square (PLS) method was adopted as the analytical tool for hypothesis testing. This structural equation modelling (SEM) method was performed with SMARTPLS 3.3.3 software.

Findings: The results demonstrate that authentic leadership has a non-significant relationship with creativity except through job thriving. Further, the moderated mediation result shows that leader-member exchange strengthens the relationship between job thriving and creativity and enhances positive influences of authentic leadership in a creativity context.

Theoretical Implications: The study provides plausible evidence on the pathways through which authentic leadership, as a positive form of leadership, explicates influence on creativity, wherein job thriving and leader-member exchange interact as contextual variables.

Practical Implications: Public organisations should introduce regular leadership training to enable managers to learn behaviours that would enhance their authenticity at work. An assessment can be integrated into leadership training programmes to ensure its efficacy.

Originality/Value: Not all employees are motivated to engage in creative work in bureaucratized settings due to the leadership behaviour in practice. This study demonstrates how authentic leadership engenders creativity through the enhancement of certain contextual variables: job thriving and leader-member exchange.

Research Limitations/Future Research: This research was limited to a specific public organisation and Nigerian State. Although the empirical information provided herein may be insightful and have applicable value for other public organisations as well as Nigerian States, it is important to replicate this research with a broader sample and geographic spread to improve its generality. The study relies on cross-sectional data which may offer little explanations of causality effects among the latent variables, future research works should consider a longitudinal research approach for clearer and concrete inferences.

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Автентичне лідерство, обмін між лідерами та членами організації, процвітання роботи та творчий зв'язок у контексті громадської організації

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Мета роботи: Дослідження спрямоване на вивчення впливу автентичного лідерства на креативність у громадській організації з огляду на процвітання робочих місць та обмін між лідером і членами організації в ролі посередника та модератора відповідно.

Дизайн / Метод / Підхід дослідження: Було застосовано крос-секційний дизайн дослідження, дані були зібрані за допомогою структурованої анкети від 269 працівників середньої ланки, які є медичними працівниками, що працюють у лікарнях та центрах первинної медико-санітарної допомоги, підпорядкованих Міністерству охорони здоров'я штату Дельта в Нігерії. В якості аналітичного інструменту для перевірки гіпотез був прийнятий метод найменших квадратів (МНК). Цей метод моделювання структурних рівнянь (SEM) був виконаний за допомогою програмного забезпечення SMARTPLS 3.3.3.

Результати дослідження: Результати демонструють, що автентичне лідерство має незначний зв'язок із креативністю, окрім як через процвітання на роботі. Крім того, модерований результат посередництва показує, що обмін між лідером і членами групи зміцнює взаємозв'язок між успішністю роботи і креативністю та посилює позитивний вплив автентичного лідерства в контексті креативності.

Теоретична цінність дослідження: Дослідження надає правдоподібні докази того, як автентичне лідерство, як позитивна форма лідерства, експлікує вплив на креативність, де успішність роботи та обмін між лідером і членами групи взаємодіють як контекстуальні змінні.

Практична цінність дослідження: Громадські організації повинні запровадити регулярні тренінги з лідерства, щоб дати можливість керівникам навчитися поведінці, яка б сприяла підвищенню їхньої автентичності на роботі. Оцінювання може бути інтегроване в програми навчання лідерства для забезпечення їхньої ефективності.

Оригінальність / Цінність дослідження: Не всі працівники вмотивовані займатися творчою роботою в бюрократизованому середовищі через лідерську поведінку на практиці. Це дослідження демонструє, як автентичне лідерство породжує креативність через покращення певних контекстуальних змінних: процвітання роботи та обмін між лідером і членами команди.

Обмеження дослідження / Майбутні дослідження: Це дослідження було обмежене конкретною громадською організацією та державою Нігерія. Хоча емпірична інформація, надана в цьому дослідженні, може бути корисною і мати цінність для інших громадських організацій, а також для штатів Нігерії, важливо повторити це дослідження з ширшою вибіркою і географічним охопленням, щоб підвищити його загальність. Дослідження спирається на дані поперечних зрізів, які можуть недостатньо пояснити причинно-наслідкові зв'язки між латентними змінними, тому в майбутніх дослідженнях слід розглянути можливість застосування лонгitudного підходу для отримання більш чітких і конкретних висновків.

Тип статті: Емпіричний

Ключові слова: автентичність, творчість, лідерство, обмін між лідерами та членами, навчання, процвітання, життєздатність.

1. Introduction

Leadership is among the important antecedents of creativity (acts fostering the development and share of new, useful knowledge) in the public sector because innovation decisions are mainly taken at the top by appointed or elected individuals, who may choose to operate alone or in tandem with employees (Khallili, 2018; Bayer *et al.*, 2020). Besides, leadership creates the context guiding employees' attitudes and behaviour to creative work. A contemporary leadership style that has drawn researchers' and practitioners' considerable attention is authentic leadership (AL) that is defined as a behavioural process which combines both positive psychological abilities and positive organizational context with further behaviour of leaders working with followers, in that way encouraging their self-development (Sanda & Arthur, 2017; Zeb *et al.*, 2019). AL is closely linked to a positive organizational environment (Zeb *et al.*, 2019) and positive employees' attitudes and behaviour (Rego *et al.*, 2012; Černe *et al.*, 2016), which are critical to the operationalization of creativity in any organization. Studies (Černe *et al.*, 2016; Hanaysha, 2020) suggest that managers who are willing to engage in AL behaviour are often a catalytic factor in creative actions because they endeavour to establish a productive employee relationship grounded on transparency, trust, support, and openness to new information. Despite the general conception that leadership is closely associated with employees' creative processes, the AL-creativity link is still a nascent research area requiring more empirical validation (Hanaysha, 2020).

The significance of AL to employee-related outcomes, like creativity, has been indicated in several studies (Mücelandili *et al.*, 2013; Rego *et al.*, 2014; Malik *et al.*, 2016; Semedo *et al.*, 2017; Chaudhary & Panda, 2018; Ribeiro *et al.*, 2020). Nevertheless, these studies have limited explanatory power for a public organisation context because the findings were drawn from a private organisation viewpoint. Cortes-Denia *et al.* (2023) suggest that attention must be accorded to the possible effects of AL in a different work context because an effect type may differ markedly from those evidenced. It is apt to point out that employees of public organizations do engage in creative and innovative activities to effectively and efficiently respond to changing societal demands and expectations (Bos-Nehles *et al.*, 2017; Ononye & Igwe, 2019), but what is unclear is whether AL is one of the leadership styles that prompts this positive work behaviour in this organisational setting. While the study recognizes that public leaders face the challenge of motivating and enhancing desirable employee-related outcomes (Bos-Nehles *et al.*, 2017), creativity is one of the focal outcomes of AL because leader behaviour that signals transparency, trust, support and openness to new information should trigger creative process engagement. To lend credence to studies reflective of AL characteristics, positive relationships have been demonstrated between leaders' transparent behaviour and employee creativity (Han *et al.*, 2017), trust and creativity (Javed *et al.*, 2018), leaders' support and subordinate creativity (Maliakkai & Reiter-Palmon, 2022), and openness to experience and creativity-related activities (Tan *et al.*, 2019).

Given the above, there is still limited empirical information of the influence AL has in a creativity context, and even less is the mediatory pathways through which AL explicates influence on employees' creativity (Rego *et al.*, 2012). It is important to take into account AL contextual influences before making generalisations about outcome variables in organisational studies (Laguna *et al.*, 2019; Cortes-Denia *et al.*, 2023). The study contends that job thriving (JT) and leader-member exchange (LMX) appear significant in this regard because of their close connections to AL and creativity respectively (Spreitzer *et al.*, 2005). JT, defined as the combined experience of learning (i.e. competency development via acquisition and application of knowledge) and vitality (i.e. feeling energetic and enthusiastic at work), is conceptualized as a mediation factor that could explain an AL-creativity link. AL triggers JT by encouraging relational transparency, providing supportive resources, and cultivating a positive work environment (Liu *et al.*, 2021). AL fosters a positive meaning to enhance self-initiated behaviour by increasing motivational resources for self-determination (Spreitzer *et al.*, 2005). The behavioural reaction to an encouraging social climate can manifest in employees' motivation, engagement and perseverance in

acts fostering the creation of novel and insightful ideas. AL focuses on the development of self-determinant employees who are willing to better their functionality and adaptability to work through learning. Drawing from the socially embedded model of thriving, the influence of leadership on positive employees' behaviour, such as creativity, is elucidated by the nurture of agentic behaviour fostering thriving (Spreitzer *et al.*, 2005; Kleine *et al.*, 2019; Abid & Contreras, 2022). This model takes into account the mediation of thriving in relationships involving leadership and creativity.

Although AL operates in a positive relational context with employees, LMX can enhance JT positive influence on creativity (Spreitzer *et al.*, 2005; Xu *et al.*, 2017; Liu *et al.*, 2021). The significance of LMX is predicated on the notion that bureaucratic foundations of public organisations, as marked by restrained collaborative interactions, suppress social conditions and social support systems that make desirable employees' behaviour, like JT, possible. The socially embedded nature of JT signifies that its learning and vitality components are activated in an organisational system that allows collaborative and supportive work-based interactions. JT occurs in a relational context formed between managers and employees to affect work behaviour and performance. The variations in relationship patterns may explain why leadership may not be consistently related to desirable employees' behaviour. LMX quality strongly predicts desirable work-related attitudes, behaviour and performance (Jung *et al.*, 2021), but the study argues that the direct or main effect may not only represent the way LMX influences different work outcomes and suggests that LMX can be a boundary condition facilitating leadership impact on employees' behaviour. In this line, the study argues that LMX quality creates a social exchange process that can positively reinforce the pathway (JT) through which AL explicates a positive influence on creativity. The extent to which this argument is true is yet to be proven in this setting.

Summarily, not all employees are motivated to engage in innovative work in bureaucratized settings due to the leadership style or behaviour in practice. The formation of a positive link between leadership and creativity will be impeded when supportive social exchanges between managers and employees are lacking, as they would not be able to thrive effectively at work. As such, the creative capabilities of employees may not be exploited to the full extent (Ononye & Igwe, 2019). Although leadership is an important predictor of employees' behaviour and outcomes, AL contextual influences on creativity remains underexplored (Mücelandili *et al.*, 2013; Gu *et al.*, 2013; Zeb *et al.*, 2019). Hence, it is necessary to explain the underlying mechanisms cultivated by AL to influence creative processes. Further, despite the close link between leadership and creativity, a constrained social environment often negates supportive resources that would enable employees to thrive. Therefore, it is important to establish the significance of LMX and JT in the AL-creativity relationship (Li, 2015; Xu *et al.*, 2017). The public organisation setting also provides a unique research perspective as most arguments were drawn from private organisation settings, which raises a critical question as to whether the links established among the constructs have similar explanatory power for public organisations. Thus, the study provides an integrative research framework by combining literature on AL, LMX, JT, and creativity with conclusions important for curating both research and practice in a public organisation context in Nigeria.

2. Literature Review and Hypotheses Development

2.1. AL and Creativity

AL is the ability to influence others' behavioural actions by creating a favourable relationship and positive organisational context through the reinforcement of integrity, respect, trust, support, and openness to new information. Managers with AL behaviour have a well-developed information processing capacity regarding self and others goals, values, beliefs and feelings; they have the ability to adapt their behaviour to the needs and preferences of employees, while still maintaining their personal identity (Du Plessis & Boshoff, 2018). An authentic leader is true to self

and to others because of greater self-awareness, self-regulation and positive modelling behaviour. Further, they align themselves with employees' inputs in decision-making and building of collaborative networks. This is quite important for the attainment of desirable work-related outcomes, including creativity.

Creativity refers to cognitive acts leading to generation and share of new and useful solutions relating to a given problem or challenge. It can be explained as behaviour facilitating idea generation, idea development or idea production and aspects of innovation (Khalili, 2016). This behaviour evolves through iterative learning, and is amplified through socialization processes like brainstorming, group discussions, meetings, communities of practices, and public forums. Creativity mainly relies on tacit knowledge and its dynamic changes to guide interacting innovation processes. However, the explication of tacit knowledge is important in communicating creative notions in a form that can be comprehended by others in the organisation. As such, creative processes should take cognizance of tension or interplay between explicit and tacit knowledge in the formation of something new (Ononye, 2021).

Because managers demonstrating AL qualities tend to be more tolerant of the risks, uncertainties and complexities associated with innovative processes, they often cultivate an organisational climate supportive of positive, transparent and fair interpersonal relations (Černe et al., 2016). The positive emotions ensuing from an inclusive work environment allow employees to freely develop their creative envelop which, in turn, furthers their creative output (Ribeiro et al., 2020). This explains why AL has been highlighted as a positive form of leadership facilitating employees' capabilities via the development of positive psychological resources: hope, optimism, self-efficacy and resilience (Malik et al., 2016) and psychological empowerment (Özaralli, 2015). These cognitive changes determine the motivational force for effectuating creative actions (Rego et al., 2012; Semedo, Coelho & Ribeiro, 2017). Several empirical studies (Müceldili et al., 2013; Rego et al., 2014; Malik et al., 2016; Semedo et al., 2017; Chaudhary & Panda, 2018; Laguna et al., 2019; Ribeiro et al., 2020) have validated the AL-creativity relationship. But none of the reviewed studies elucidated the AL-creativity relationship in a public organisation setting, as results may differ markedly given its bureaucratic foundations. Therefore, the following hypothesis was developed.

H1: AL has a significant relationship with creativity.

2.2. AL and Creativity: The Mediation of JT

JT is a psychological state in which employees feel energized about work while developing new competencies through learning. Both learning and vitality reinforce each other and relate in such a way that they can collectively predict desirable behaviour. The joint experience of vitality and learning helps to improve employees' functionality and adaptability to changing work contexts and requirements (Ononye, 2022), therefore, leading to self-development. Learning supports competency development for effective execution of organisational work, and vitality provides the required motivation to perform tasks and assignments. Further, when job thriving is experienced, the positive psychological state, as marked by positive emotions and moods, contributes to expansive cognitive thinking which is critical to task execution and completion (Liu et al., 2019).

Mortier, Vlerick and Clays (2016) note that relationship-focused managers, such as AL, elicit more positive work outcomes than task-focused managers because they create a thriving environment impacting employees' attitude, behaviour and performance. The positive, supportive and developmental interactions with employees inculcate an engaging work climate characterized by commitment, vigour and learning. AL enhances self-initiated behaviour, such as thriving, by increasing motivational resources for self-determination. Lui et al. (2021) argued in line with Spreitzer et al.'s (2005) model of thriving that the experience of vivacity and learning depends strongly on the magnitude of supportive resources produced or received (e.g. autonomy, information, relatedness) from dynamic interactions with leaders. They further emphasized this argument by

highlighting AL as an antecedent organisational factor impacting JT. This positive association between AL and JT was also evidenced by Mortier et al. (2016) and Xu et al. (2017).

Additionally, thriving can be a stimulus to desirable outcomes that benefit both employees and their organisations, one of which is creativity. Arguably, creativity is stimulated by the learning process because it enables insightful information to be synthesized and framed in appropriate work behaviour for instituting change or improvements. Learning provides new insights to guide creative reasoning and actions. The locus of creative behaviour is situated within the learning process because productive enquiry attenuates the constraints imposed by existing information parameters to support its reconfiguration. Further, employees must be enthused, passionate and motivated about innovative activities for creativity to be stimulated rightly. Recent empirical works (Riaz et al., 2019; Ononye, 2022) support a JT-innovation link, suggesting that JT relates to creative processes.

Referring to the arguments above, JT is closely related to both AL and creativity, suggesting that job thriving may be an important mediational factor that could explain how AL can be cultivated and supported to enhance behaviour that fosters creativity. Besides, the socially embedded model of thriving argues that employees thrive when managers create favourable relationships and a positive organisational context built on trust, respect and openness to information, which, in turn, can directly influence organisational behaviour, such as creativity (Spreitzer et al., 2005; Liu et al., 2021). Accordingly, the following hypotheses were proposed.

H2a: AL has a significant relationship with JT.

H2b: JT has a significant relationship with creativity

H2c: JT mediates an AL significant relationship with creativity.

2.3. LMX Moderation of JT

LMX argues that the dyadic relationship between managers and employees develops and advances over time through series of interactions at work (Mascareño et al., 2019), and managers develop distinct forms of exchange relationships, ranging from high to low, according to employees' trustworthiness, motivation, role expectation, and competence to take on more responsibility and complete tasks (Scott & Bruce, 1998). Because the relationship between managers and employees occurs at varying levels of intensity, employees may choose to pay more attention to the quality of this relationship because their behaviour can be predicated on the extent to which they establish open and trusting relations with their managers. Following the theoretical arguments in the socially embedded model by Spreitzer et al. (2005), JT can relate to social constructs situated in a given work context, among which leaders' behaviour and relationship with leaders are deemed relevant to the development of learning and vitality component of JT (Li, 2015; Xu et al., 2019). It is probable that LMX provides an enabling social condition that fosters learning through constructive interactions as well as stimulates the required energy, on the part of employees, to meet any work-related demands.

Based on the social exchange theory, managers can influence employees' creative behaviour by stimulating motivation for self-determination under perfect social exchange conditions (Liu et al., 2021). Duan et al. (2019) argue that employees who perceive LMX as psychologically rewarding than transactional are more inclined to show positive work attitudes or behaviour regardless of the positive leadership style manifest in the organisation. This suggests that the effectiveness and significance of AL in a working environment is dependent on the extent to which high LMX is enacted. Further, LMX makes the role of JT more pronounced in the conveyance of leadership influences on creativity. Employees who are in a high-quality social exchange relationship with managers are likely to secure adequate, tangible and psychological support resources to trigger high learning and vivacity at work, which, in turn, can rightly influence employees' creative behaviour.

Using the componential theory of creativity, Vila-Vázquez et al. (2020) contend that social environment factors, like LMX, account for changes in psychological conditions (JT) to facilitate and support creativity-enhancing behaviour. Because leadership resides in a relational context, supportive interactions between leaders and followers inculcate a psychologically empowering climate for leaders' behaviour to rightly influence followers' creative behaviour and performance (Wang et al., 2014). Arguably, AL influences on creativity is enhanced when managers develop high-quality LMX with employees in such a way that JT is reinforced by supportive exchanges. It means that social exchange patterns created by managers have the potency of limiting the effectiveness of JT. Niu et al. (2018) conceptualized LMX as a moderator of AL and employees' behaviour relationship, and found a significant and positive moderation effect. In line with these arguments, the following hypothesis was formulated.

H3: JT mediates an AL significant relationship with creativity when being moderated by LMX.

The formulated hypotheses, stated above, were represented in Fig. 1 to show the probable link between AL and creativity, wherein LT and LMX interact as contextual variables.

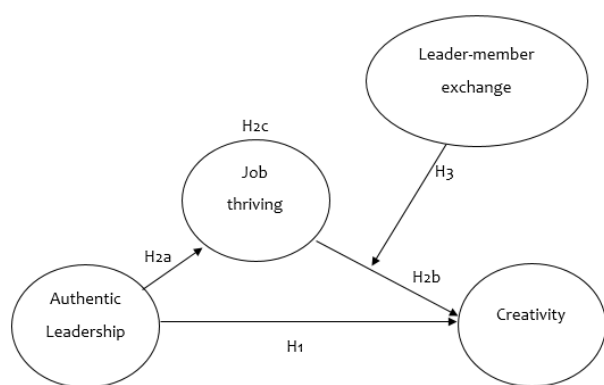


Figure 1: Hypothesized research framework

Source: developed by the author, 2023

3. Data and Methods

The study collected data from 269 mid-level healthcare professionals sampled from hospitals and primary healthcare centres within the purview of the Delta State Ministry of Health in Nigeria over a three-month period, beginning from February to April 2022. The target sample was selected because healthcare professionals often face a challenging work environment that requires a creative approach to navigate different health-related concerns and/or challenges impacting individual and societal wellbeing. The optimization of employees' creativity is critical to such organisations, hence, the relevance of factors associated with creativity as evidenced in extant literature. Having obtained a research approval from the Commissioner of Health, the respondents were contacted via phone (calls and texts) to elicit an appropriate time for a formal visitation to their offices during regular work hours. This was done to obtain informed consent for participation, introduce the research aims and procedures, and respond to any questions they may have about the research. The anonymity of data was also assured and explicitly captured in a covering letter. The employees who voluntarily participated were asked to complete a coded subordinate questionnaire which captured the constructs of AL, LMX and JT. Then, they were instructed to give immediate unit heads or supervisors a coded questionnaire to obtain an assessment of their creative behaviour. The code assigned to a subordinate was matched with the other assigned to his/her immediate supervisor. The completed questionnaire was returned sealed in an envelope provided by the researcher. This research procedure had been used in previous studies (Li, 2015; Xu et al., 2019).

Additionally, the administration and retrieval of the questionnaire were done in person. The respondents were followed up fortnightly to improve the response rate. All the questionnaires were returned but only one was deemed unusable for analysis because of missing data. The 268 usable questionnaires indicate a response rate of 99.6%. Regarding the demographic profile of the respondents, 141 (52.6%) were males and 127 (47.4%) were females, showing males were marginally higher than females. The mean age and tenure of the respondents were 41.29 years and 12.63 years respectively. In terms of academic background, all the respondents had a minimum of a bachelor's degree. While data were collected from two sources to attenuate common method bias (CMB) concerns, the study performed Harman's single factor test to check the potential for CMB using SPSS 20.0. The result revealed that the variance of the first factor was 23.79 percent less than the benchmark point of 50 percent; thus, no significant CMB exists in this study.

The study made use of validated scales in previous studies. AL was measured with the 5 question items presented by Hanaysha (2020). The sample items include "My supervisor seeks feedback to improve interactions with others" and "My supervisor is willing to admit mistakes when they are made". Cronbach's alpha score for this scale was .889. LMX was measured with the 8 question items provided by Vila-Vázquez et al. (2020). The sample items include "My supervisor and I have a two-way exchange relationship" and "My relationship with my supervisor is composed of comparable exchanges of giving and taking". Cronbach's alpha score was 811. The 10 question items of JT were adopted from Porath, et al. (2012). This was used in Ononye (2022). The sample items include "I feel alive and vital at work" and "At work, I find myself learning often". Cronbach's alpha for this scale was 0.794. The 6 question items of creativity were adapted from Easa (2012), Xie et al. (2020) and Ononye (2021). The sample items include "He/She often comes up with practical and useful ideas relating to a given problem context" and "He/She helps to prepare documents (e.g. presentations, reports, memos) containing transcribed suggestions, ideas and solutions from interactive sessions (including meetings)". Cronbach's alpha for this scale was 0.837. The question items of all the constructs were rated on a 5-point Likert Scale from strongly disagree (1) to strongly agree (5).

The study analyzed the data collected using the Partial Least Square (PLS) estimation method, aided by SmartPLS 3.3.3 software. The application of this structural equation modelling technique has become widespread in the field of management and social sciences due to its effectiveness in demonstrating linkages among multiple latent constructs. Further, this technique is suitable for analyzing mediational constructs in a hypothesized model. The two-step analytical procedure by Anderson & Gerbing (1998) was followed, which includes the confirmatory factor analysis of an outer (or measurement) model and structural estimation of an inner (or structural) model. The mediational effect was determined using the specific indirect effect. Both the direct effect and the specific indirect effect were analyzed using the bootstrap method including 5000 subsamples, as recommended by Hair et al. (2017). Finally, the moderation effect analysis was conducted. Before performing PLS analysis, the factorability of the dataset was demonstrated using the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity (BTS); both tests were aided by SPSS 20.0. Importantly, the latent constructs (i.e. AL, LMX, JT, and creativity) were all modelled as first-order reflective constructs.

4. Results and Discussion

This section begins with the KMO and BTS test. The KMO values of AL (.677), LMX (.792), JT (.705) and creativity (.690) were greater than the benchmark point of .60 and their respective BTS value was significant at $p < 0.05$. These results proved that the dataset meets the requirement for applying a factor analysis procedure. The study went forward to carry out a confirmatory assessment of the inner model to ascertain the validity and reliability of constructs. This is part of the 2-step

procedure for structural equation modelling (Anderson & Gerbing, 1998). Validity was established using the average variance extracted (convergent validity) and the Fornell-Larcker criterion (discriminant validity). Reliability was determined using factor loadings (item reliability) and composite reliability (construct reliability). Accordingly, the rule of thumb by Hair et al. (2017) was followed by interpreting the scores obtained from the validity and reliability tests.

Tab. 1 shows the inner model estimates. Factor loadings (FLs) for all the constructs exceeded the benchmark score of > .707, suggesting satisfactory item reliability. Composite reliability (CR) for all the constructs were higher than the recommended cut-off point of > .70, proving that acceptable construct reliability was achieved. The average variance extracted (AVE) was above the acceptable limit of > .50, demonstrating good convergent validity. In view of the Fornell-Larcker criterion results, discriminant validity was attained because the constructs' correlations exceeded their respective inter-construct correlations. Summarily, the outer model demonstrated acceptable measurement properties in relation to reliability and validity. Having achieved this, the study proceeded to assess the inner model estimates to specify the relationship between the constructs. The direct structural relationship was specified before the mediational (indirect) structural relationship, then the moderation test was performed using a product indicator calculation approach.

Table 1: Assessment of the Outer Model

Constructs	FL range > .70	CR > .70	AVE > .50	1	2	3	4
AL	.798-.864	.778	.712	.844			
Creativity	.796-.844	.736	.660	.105	.812		
JT	.775-.858	.852	.658	.179	.145	.811	
LMX	.734-.811	.741	.655	.118	.209	.098	.809

Source: Research results, 2023

Tab. 2 shows the inner model assessment of the direct effects for hypothesis testing. The standardized path coefficients (also known as beta values), the p-values and the R² were employed for this assessment. Following the rule of thumb by Hair et al. (2017), the R² suggests that the model's explanatory power is moderate. H1 examined an AL link with creativity. From the PLS estimates, the link was positive but insignificant ($\beta = 0.103, p = 0.070$); thus, H1 was not supported. This finding contradicts past empirical studies (Müceldili et al., 2013; Rego et al., 2014; Malik et al., 2016; Semedo et al., 2017; Chaudhary & Panda, 2018; Ribeiro et al., 2020) that validated a significant positive AL-creativity linkage. This finding suggests that managers with high AL qualities may not stimulate employees' creative behaviour significantly. Possibly, AL may not necessarily influence creativity significantly given bureaucratic configuration stymying creativity and its probable outcomes in public organisations. In another vein, the AL-creativity link can be explained, partly or fully, by the quality of contextual factors (mediators or moderators) evident in a specified creativity context. This may explain the arguments by Townsen et al. (2021) that AL prediction of its theoretically proposed work outcomes is not always significant. In all, the AL-creativity link may be a complex one.

Table 2. Assessment of Inner Model

	Paths	β	P-value	Remark
1	AL → Creativity	0.103	0.070	Non-significant
2	AL → Creativity	0.095	0.082	Non-significant
	AL → Job Thriving	0.228	0.000	Significant
	JT → Creativity	0.364	0.000	Significant
	AL → JT → Creativity	0.096	0.000	Significant
3	AL → LMX*JT → Creativity	0.127	0.000	Significant

Note: $P < 0.05, R^2 = .549, \beta = \text{beta values}$

Source: Research results, 2023

H2 gave clear reasons for the mediational effect of JT in an AL-creativity relationship. The results confirmed that JT is closely related to both AL ($\beta = 0.228, p = 0.000$) and creativity ($\beta = 0.364, p = 0.000$). The AL-creativity link reduced slightly after the introduction of JT as a mediational factor ($\beta = 0.095, p = 0.082$). The specific indirect estimates showed that JT mediated the LMX-creativity link positively and significantly ($\beta = 0.096, p = 0.000$); thus, H2 was accepted. The mediation type was seen as partial, which suggests that there may be other contextual factors, not included in this study, conveying AL influences on creativity. This finding reinforces the socially embedded model of thriving which argues that AL fuels agentic behaviour that enables JT to influence creativity significantly (Spreitzer et al., 2005). It also concurs with the findings by Liu et al. (2021) that JT mediated AL and a creativity relationship. Because employees tend to be purposeful and active in a positive work environment cultivated by AL, they often experience learning and vivacity at work which are stimulating factors in creative behaviour. Further, despite an AL-creativity positive link, its significance and effectiveness can be enhanced, partly, through the stimulation of JT. H3 predicted that JT mediated an AL significant positive relationship with creativity when being moderated by LMX. The PLS analysis results showed that LMX interaction with JT was positive and significant in an AL-creativity relationship ($\beta = 0.127, p = 0.000$). This moderated mediation result provides evidence to support H3, and somewhat agrees with Niu et al. (2018) that LMX is a boundary condition impacting AL association with positive employees' behaviour. Given that the highly supportive and resourceful dyadic relationship provides empowerment and development opportunities critical to activating JT, employees' creativity can be strengthened in a significant manner, and the effectiveness of AL in a creativity context can also be enhanced. The reported findings were aptly represented in Fig. 2 with the straight-lines and dotted-lines indicating support (significant) and no support (insignificant) respectively.

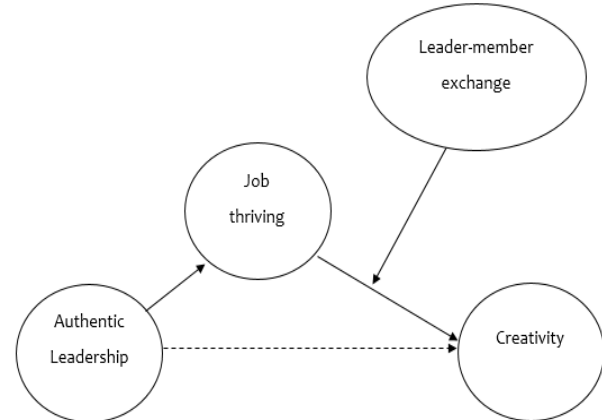


Figure 2: Research framework

Source: Research results, 2023

5. Conclusion

The study applied the PLS approach to examine the link between authentic leadership and creativity by accounting for job thriving (mediator) and leader-member exchange (moderator) acting as contextual factors. In doing so, data were collected from 269 mid-level healthcare professionals sampled from hospitals and primary healthcare centres under the control of the Delta State Ministry of Health in Nigeria. From the PLS results, an authentic leadership relationship with creativity was insignificant except for the mediation of job thriving, suggesting an indirect-only relationship. Further, job thriving mediation of an authentic leadership and creativity relationship is effectuated when leader-member exchange is a boundary condition. Taken together, the authentic leadership and creativity relationship is complex as there are contextual factors (job thriving and leader-

member exchange) that determine the effectiveness of this leadership behaviour in the creativity context of public organisations. The study concludes that the relationship between authentic leadership and creativity can be explained by job thriving and its interaction with leader-member exchange.

Theoretically, these findings are significant because public organisations are increasingly pressured to find ways to enhance their creativity levels amid changing societal needs and demands, and leadership is often seen as a critical response factor to such calls. The study provides plausible evidence on the pathways through which authentic leadership, as a positive form of leadership, explicates influence on creativity in a public organisation. Considering that most arguments were drawn exclusively from studies on private organisations, empirical information is insightful and adds to burgeoning literature on leadership, job thriving, and creativity from the viewpoint of a public organisation. Li (2015) suggests that previous empirical works have ignored the effects of leadership (authentic leadership and leader-member exchange) on employees' job thriving experiences. As such, the socially embedded model of thriving by Spreitzer *et al.* (2005) was extended and found to be consistent with the notion of job thriving not only being a positive outcome of leadership but a contextual factor in authentic leadership in a creativity context. Further, studies show that leader-member exchange is an antecedent condition of job thriving, however, it is demonstrated in this study that it can also function as a moderating condition to guide the experience of job thriving in the workplace.

Practically, public organisations should introduce regular leadership trainings to enable managers to learn behaviour that would enhance their authenticity at work. An assessment can be integrated into leadership training programmes to ensure its efficacy. Employees often see managers as their preferred support resource because their behaviour, roles and relationships direct their psychological states as well as performance in execution and completion of creative tasks or assignments. As such, managers who root their relationships with employees in authenticity can enable positive psychological states, marked by job thriving, and ensure they have enough tangible and psychological resources to creatively face evolving challenges affecting organisational work. Second, managers should direct their attention to employees who have developed high-quality leader-member exchange, and should equally carry out regular trainings to help them define and develop themselves in relation to relationships with managers. Public organisations looking to improve job thriving and reduce reliance on leadership intervention, especially when leadership trainings have proven ineffective, may opt for job thriving development. This is because some employees may rely on their intrinsic motivation to bolster job thriving to significant levels. Therefore, the human resource unit of the public sector should provide staff trainings that could impact job thriving or could recruit staff who exhibit this psychological trait amongst others.

Regarding the limitations of this study, this research was limited to a specific public organisation and Nigerian State. Although the empirical information provided herein may be insightful and has applicable value to other public organisations as well as Nigerian States, it is important to replicate this research with a broader sample and geographic spread to improve its generality. The study relies on cross-sectional data which may offer little explanations for causality effects among the latent variables, future research works should consider a longitudinal research approach to clearer and concrete inferences. As stated earlier, there may be other contextual factors that could explain an authentic leadership link with creativity. While this study only examined leader-member exchange and job thriving, other studies can elaborate on this model by including other relevant factors that may affect this relationship, like culture, structure, psychological capital and psychological empowerment. Furthermore, a comparative study would be necessary to ascertain the difference(s), if any, between different organisational settings (i.e. private and public).

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7. Competing interests

The author declares that he has no competing interests.

References

- Abid, G., & Contreras, F. (2022). Mapping thriving at work as a growing concept: Review and directions for future studies. *Information*, 13, 383. <https://doi.org/10.3390/info13080383>
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411-423. <https://doi.org/10.1037/0033-2909.103.3.411>.
- Bayer, O., Krupskiy, O., & Bondarenko, E. (2020). Subordinate evaluations of high-performance managers. *Leadership & Organization Development Journal*, 41(7), 927-938. <https://doi.org/10.1108/LODJ-02-2019-0080>.
- Bos-Nehles, A., Bondarouk, T., & Nijenhuis, K. (2017). Innovative work behaviour in knowledge-intensive public sector organizations: The case of supervisors in the Netherlands fire services. *The International Journal of Human Resource Management*, 28(2), 379-398. <https://doi.org/10.1080/09585192.2016.1244894>.
- Černe, M., Sumanth, J., & Škerlavaj, M. (2016). Everything in moderation: authentic leadership, leader-member exchange and idea implementation. In M. Škerlavaj, M. Černe, A. Dysvik, & A. Carlsen (Eds.), *Capitalizing on Creativity at Work* (pp.126-138). Edward Elgar Publishing.
- Chaudhary, R., & Panda, C. (2018). Authentic leadership and creativity. *International Journal of Productivity and Performance Management*, 67(9), 2071-2088. <https://doi.org/10.1108/ijppm-02-2018-0082>.
- Cortes-Denia, D., Luque-Reca, O., Lopez-Zafra, E., & Pulido-Martos, M. (2023). Does authentic leadership promote higher job satisfaction in public versus private organizations? Exploring the role of vigor and engagement. *Heliyon*, 9, e12906. <https://doi.org/10.1016/j.heliyon.2023.e12906>
- Du Plessis, M., & Boshoff, A.B. (2018). The role of psychological capital in the relationship between authentic leadership and work engagement. *SA J. of Human Resource Management*, 16, a1007. <https://doi.org/10.4102/sajhrm.v16i0.1007>.
- Duan, J., Lapointe, É., Xu, Y., & Brooks, S. (2019). Why do employees speak up? Examining the roles of LMX, perceived risk and perceived leader power in predicting voice behavior. *Journal of Managerial Psychology*, 34(8), 560-572. <https://doi.org/10.1108/jmp-11-2018-0534>.
- Easa, N. F. (2012). *Knowledge management and the SECI model: A study of innovation in the Egyptian banking sector*. PhD thesis, Stirling Online Research Repository, University of Stirling. <http://hdl.handle.net/1893/5053>.
- Gu, Q., Tang, T. L.-P., & Jiang, W. (2013). Does Moral Leadership Enhance Employee Creativity? Employee Identification with Leader and Leader-Member Exchange (LMX) in the Chinese Context. *Journal of Business Ethics*, 126(3), 513-529. <https://doi.org/10.1007/s10551-013-1967-9>.
- Hair, F. J., Hult, M. T. G., Ringe, M. C., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)* (2nd ed.). Los Angeles: Sage.

- Han, Y., Hao, P., Yang, B., & Liu, W. (2017). How leaders' transparent behaviour influences employee creativity: The mediating roles of psychological safety and ability to focus attention. *Journal of Leadership and Organisational Studies*, 24(3), 335-344. <https://doi.org/10.1177/1548051816670306>.
- Hanaysha, J. R. (2020). Innovation Capabilities and Authentic Leadership: Do They Really Matter to Firm Performance? *Journal of Asia-Pacific Business*, 21(4), 271-290. <https://doi.org/10.1080/10599231.2020.1824523>.
- Javed, B., Rawwas, M., Khandai, S., Shahid, K., & Tayyeb, H. H. (2017). Ethical leadership, trust in leader and creativity: The mediated mechanism and an interacting effect. *Journal of Management and Organisation*, 24(3), 388-405. <https://doi.org/10.1017/jmo.2017.56>.
- Jung, K. B., Ullah, S. M. E., & Choi, S. B. (2021). The mediated moderating role of organizational learning culture in the relationships among authentic leadership, leader-member exchange, and employees' innovative behavior. *Sustainability*, 13, 10802. <https://doi.org/10.3390/su131910802>.
- Khalili, A. (2018). Creativity and innovation through LMX and personal initiative. *Journal of Organizational Change Management*, 31, 323-333. <https://doi.org/10.1108/JOCM-09-2016-0183>.
- Kleine, A., Rudolph, C. W., & Zacher, H. (2019). Thriving at work: A meta-analysis. *Journal of Organizational Behavior*, 40(9-10), 973-999. Portico. <https://doi.org/10.1002/job.2375>.
- Laguna, M., Walachowska, K., Gorgievski-Duijvesteijn, M. J., & Moriano, J. A. (2019). Authentic Leadership and Employees' Innovative Behaviour: A Multilevel Investigation in Three Countries. *International Journal of Environmental Research and Public Health*, 16(21), 4201. <https://doi.org/10.3390/ijerph16214201>.
- Li, J. (2015). The mediating roles of job crafting and thriving in the LMX-employee outcomes relationship. *Japanese Journal of Administrative Science*, 28(1), 39-51. <https://doi.org/10.5651/jaas.28.39>.
- Liu, D., Zhang, S., Wang, Y., & Yan, Y. (2021) The Antecedents of Thriving at Work: A Meta-Analytic Review. *Front. Psychol.*, 12, 659072. <https://doi.org/10.3389/fpsyg.2021.659072>.
- Liu, Y., Xu, S., & Zhang, B. (2019). Thriving at work: how a paradox mindset influences innovative work behavior. *J. Appl. Behav. Sci.*, 56, 347-366. <https://doi.org/10.1177/0021886319888267>.
- Maliakkai, T. N., & Reiter-Palmon, R. (2022). The effects of leader support for creativity and leader gender on subordinate creative problem-solving performance. *The Journal of Creative Behaviour*, 57(1), 109-126. <https://doi.org/10.1002/jocb.556>.
- Malik, N., Dhar, R. L., & Handa, S. C. (2016). Authentic leadership and its impact on creativity of nursing staff: A cross sectional questionnaire survey of Indian nurses and their supervisors. *International journal of nursing studies*, 63, 28-36. <https://doi.org/10.1016/j.ijnurstu.2016.08.004>.
- Mascareño, J., Rietzschel, E., & Wisse, B. (2020). Leader-Member Exchange (LMX) and innovation: A test of competing hypotheses. *Creat. Innov. Manag.*, 2020, 1-17. <https://doi.org/10.1111/caim.12390>.
- Mortier, A. V., Vlerick, P., & Clays, E. (2016). Authentic leadership and thriving among nurses: the mediating role of empathy. *Journal of nursing management*, 24(3), 357-365. <https://doi.org/10.1111/jonm.12329>.
- Müceldili, B., Turan, H., & Erdil, O. (2013). The Influence of Authentic Leadership on Creativity and Innovativeness. *Procedia - Social and Behavioral Sciences*, 99, 673-681. <https://doi.org/10.1016/j.sbspro.2013.10.538>.
- Niu, W., Yuan, Q., Qian, S., & Liu, Z. (2018). Authentic leadership and employee job behaviors: The mediating role of relational and organizational identification and the moderating role of LMX. *Current Psychology*, 37, 982-994. <https://doi.org/10.1007/s12144-018-9937-0>.
- Ononye, U. (2022). Linking tacit knowledge sharing to employee innovation with job thriving as a mediational factor: A public sector perspective. *International Journal of Public Policy and Administration Research*, 9(2), 22-32. <https://doi.org/10.18488/74.v9i2.3022>.
- Ononye, U. H. (2021). Tacit knowledge and innovation: Insights from the public sector in Delta State, Nigeria. *Journal of Information & Knowledge Management*, 20(03), 2150032. <https://doi.org/10.1142/s0219649221500325>.
- Ononye, U. H., & Igwe, A. (2019). Knowledge sharing process and innovation success: Evidence from public organizations in Southern Nigeria. *Interdisciplinary Journal of Information, Knowledge, and Management*, 14, 183-198. <https://doi.org/10.28945/4358>.
- Özaralli, N. (2015). Linking empowering leader to creativity: The moderating role of psychological (felt) empowerment. *Procedia - Social and Behavioral Sciences*, 181, 366-376. <https://doi.org/10.1016/j.sbspro.2015.04.899>.
- Porath, C., Spreitzer, G., Gibson, C., & Garnett, F. G. (2012). Thriving at work: Toward its measurement, construct validation, and theoretical refinement. *Journal of Organizational Behavior*, 33(2), 250-275. <https://doi.org/10.1002/job.756>.
- Rego, A., Sousa, F., Marques, C., & Cunha, M. P. (2014) Hope and positive affect mediating the authentic leadership and creativity relationship. *Journal of Business Research*, 67(2), 200-210. <https://doi.org/10.1016/j.jbusres.2012.10.003>.
- Rego, A., Sousa, F., Marques, C., & e Cunha, M. P. (2012). Authentic leadership promoting employees' psychological capital and creativity. *Journal of business research*, 65(3), 429-437. <https://doi.org/10.1016/j.jbusres.2011.10.003>.
- Riaz, S., Xu, Y., & Hussain, S. (2019). Role of relational ties in the relationship between thriving at work and innovative work behavior: An empirical study. *European Journal of Investigation in Health, Psychology and Education*, 10(1), 218- 231. <https://doi.org/10.3390/ejihpe10010017>.
- Ribeiro, N., Duarte, A. P., Filipe, R., & Torres de Oliveira, R. (2020). How Authentic Leadership Promotes Individual Creativity: The Mediating Role of Affective Commitment. *Journal of Leadership & Organizational Studies*, 27(2), 189-202. <https://doi.org/10.1177/1548051819842796>.
- Sanda, A., & Arthur, N. A. D. (2017). Relational impact of authentic and transactional leadership styles on employee creativity. *African Journal of Economic and Management Studies*, 8(3), 274-295. <https://doi.org/10.1108/ajems-07-2016-0098>.
- Scott, G. S., & Bruce, A. R. (1998). Innovation and the LMX connection: Getting a foothold on relationships that work. *IEEE potentials*, 17(2), 10-11. <https://doi.org/10.1109/MP.1998.667224>.
- Semedo, A. S. D., Coelho, A. F. M., & Ribeiro, N. M. P. (2017). Authentic leadership and creativity: the mediating role of happiness. *International Journal of Organizational Analysis*, 25(3), 395-412. <https://doi.org/10.1108/ijoa-03-2016-0994>.
- Spreitzer, G., Jane, D., Scott, S., & Adam, G. (2005). A socially embedded model of thriving at work. *Organization Science*, 16(5), 537-549. <https://doi.org/10.1287/orsc.1050.0153>.
- Tan, C., Lau, X., Kung, Y., & Kailsan, R. A. (2016). Openness to Experience Enhances Creativity: The Mediating Role of Intrinsic Motivation and the Creative Process Engagement. *The Journal of Creative Behavior*, 53(1), 109-119. Portico. <https://doi.org/10.1002/jocb.170>.

- Towsen, T., Stander, M. W., & van der Vaart, L. (2020). The Relationship between Authentic Leadership, Psychological Empowerment, Role Clarity, and Work Engagement: Evidence from South Africa. *Frontiers in Psychology*, 11, 1973. <https://doi.org/10.3389/fpsyg.2020.01973>.
- Vila-Vázquez, G., Castro-Casal, C., & Álvarez-Pérez, D. (2020). From LMX to individual creativity: Interactive effect of engagement and job complexity. *International Journal of Environmental Research and Public Health*, 17, 2626. <http://dx.doi.org/10.3390/ijerph17082626>.
- Wang, H., Sui, Y., Luthans, F., Wang, D., & Wu, Y. (2014). Impact of authentic leadership on performance: Role of followers' positive psychological capital and relational processes. *Journal of Organizational Behavior*, 35(1), 5–21. <https://doi.org/10.1002/job.1850>.
- Xie, Z., Wu, N., Yue, T., Jie, J., Hou, G., & Fu, A. (2020). How Leader-Member Exchange Affects Creative Performance: An Examination From the Perspective of Self-Determination Theory. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.573793>.
- Xu, B. D., Zhao, S. K., Li, C. R., & Lin, C. J. (2017). Authentic leadership and employee creativity: testing the multilevel mediation model. *Leadersh. Organ. Dev. J.* 38, 482–498. <https://doi.org/10.1108/lodj-09-2015-0194>.
- Xu, A. J., Loi, R., & Chow, C. W. (2019). What threatens retail employees' thriving at work under leader-member exchange? The role of store spatial crowding and team negative affective tone. *Human Resource Management*, 58(4), 371-382. <https://doi.org/10.1002/hrm.21959>.
- Zeb, A., Abdullah, N. H., Hussain, A., & Safi, A. (2019). Authentic leadership, knowledge sharing, and employees' creativity. *Management Research Review*, 43(6), 669–690. <https://doi.org/10.1108/mrr-04-2019-0164>.

Appendix

Measurement Items

Authentic leadership (AL)

1. My supervisor seeks feedback to improve interactions with others.
2. My supervisor accurately describes how others view his or her capabilities.
3. My supervisor is willing to admit mistakes when they are made.
4. My supervisor demonstrates beliefs that are consistent with actions.
5. My supervisor listens carefully to different points of view before coming to conclusions.

Job thriving (JT)

6. I feel alive and vital at work
7. At work, I have energy and spirit
8. I do not feel very energetic at work
9. I feel alert and awake at work
10. I am looking forward to each new day
11. At work, I find myself learning often
12. I continue to learn more and more as time goes by
13. I see myself continually improving at work
14. I am not learning at work
15. I have developed a lot as a person

Leader-member exchange (LMX)

16. My supervisor and I have a two-way exchange relationship
17. I do not have to specify the exact conditions to know my supervisor will return a favour
18. If I do something for my supervisor, he or she will eventually repay me.
19. I have a balance of inputs and outputs with my supervisor.
20. My efforts are reciprocated by my supervisor
21. My relationship with my supervisor is composed of comparable exchanges of giving and taking
22. When I give effort at work, my supervisor will return it.
23. Voluntary actions on my part will be returned in some way by my supervisor

Creativity

24. He/she often comes up practical and useful ideas relating to a given problem context.
25. He/she helps to prepare documents (e.g. presentations, reports, memos) containing transcribed suggestions, ideas and solutions from interactive sessions (including meetings).
26. During discussion, he/she often combine or synthesise different ideas to draw useful conclusions
27. He/she tend to collect new information and make a connection of new and old knowledge to work up new concepts
28. He/she often has a fresh approach to problems by consulting relevant materials and documents within and outside the organisation.
29. He/she tends to adapt existing information in light of the results achieved.

