Drivers of Teachers' Innovative Behaviour in Tanzania's Secondary Schools: Is Trust Really a Missing Link?

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Abstract

The study aimed to explore drivers of teachers' innovative behaviour with the mediating role of trust. Seven hypotheses were developed based on social exchange theory and empirical studies. A structured questionnaire was used to collect data from 916 teachers in Tanzania. Using Partial Least Squares Structural Equation Modelling (PLS-SEM), the findings revealed that opportunism, cooperation, and trust significantly influence teachers' innovative behaviour, while opportunism and cooperation also significantly influence trust. The findings also showed that trust mediates the associations between opportunism and teachers' innovative behaviour and cooperation and teachers' innovative behaviour. The study offers theoretical insights based on social exchange theory, highlighting that actions within employer-teacher relationships can directly influence attitude and behaviour, while attitudes can mediate the influence of these actions on behaviour. The findings suggest the need for managers to ensure the availability of cooperation while minimising opportunism to enhance both trust and innovative behaviour among employees.

Keywords: *cooperation, opportunism, trust, innovative behaviour*

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Introduction

At least 18.5% of total formal employment in Tanzania's Mainland can be found in the education sector (NBS, 2016). Moreover, the education system of Tanzania can be described into five levels, i.e. basic education (pre-primary, primary and ordinary secondary), advanced secondary education, technical and vocational education and training, adult education and non -formal education, and higher education (Ndalichako, 2018). It is claimed that in order to attain a middle-income economy by 2025 through an industrialisation strategy, there should be reforms in the education sector (Maboko, 2021). In line with the reforms needed in the education sector, the government of Tanzania has set an environment that supports many students who complete primary school education to join secondary schools, such as waiving tuition fees in government-owned secondary schools (Anyimike,

2019). Such an initiative of the government has led to a flux of students in secondary schools who need secondary school teachers who can practice innovative teaching behaviour due to the predominant variation of school performance as observed between government and privately owned secondary schools (Boniface, 2016). Based on Form Four national examination results, private secondary schools usually lead compared to government secondary schools, signalling, among other things, more innovative teaching behaviour in private secondary schools than in government secondary schools (Chidawali, 2019).

Furthermore, student and school performance worldwide has been significantly impacted by variations in innovative teaching practices among educators. It has also been observed that many students struggle with mathematics and science courses, particularly chemistry and physics. As such, improving teachers' innovativeness is inevitable in enhancing the performance of both students and schools (Agwu, 2018). Recognising the importance of innovative behaviour in education, Agwu (2018) argued that to enhance student engagement and academic performance, teachers should adopt new instructional approaches and have access to intensive in-service training on innovative classroom practices. Teachers should also be allowed to visit schools implementing these practices to observe new materials and methods. Principals and teachers should also be encouraged to adopt a global perspective on teaching methods. Ultimately, innovation in teaching is crucial for improving students' understanding and performance (Agwu, 2018).

Innovativeness in teaching contributes to efficiency and effectiveness. Meanwhile, research studies have shown that students' academic achievement in the three core science subjects (Biology, Chemistry and Physics) has been very poor, with little or no innovative teaching skills over the years (Lamidi et al., 2015; Olorundare, 2014; Oyelekan et al., 2018). It is believed that innovative practices in science education can help enhance students' academic achievement in science subjects. Recently, teachers have been encouraged to practice a learner-centred approach as a means to effective learning, and the current curriculum review insists on a learner-centred approach. It is argued that the students/learners centred approach can be attained if teachers practice innovative teaching methods such as planned discussions, advisory approaches, panel discussions, small group discussions, seminars, debates, committee and group works, problem-solving research and case studies are widely employed (Ezeano, 2013; Ezeano & Ugwu, 2020). According to Yussuf (2023), in Tanzania, as in other countries, it can be noted that, unlike in science subjects, students are performing well in language, arts, commerce, and economics subjects, thus calling forth studies on factors attributing to innovative teaching practices in secondary schools. Social exchange theory offers implicit or explicit actions that influence behaviour (Bartol et al., 2009; Liao, 2008; Wayne et al., 1997). Since behaviour can be the result of attitude, it is imperative to study

how actions influence attitude and, consequently, behaviour. Therefore, social exchange theory can provide constructs regarded as drivers for innovative behaviour that can pass through trust (Bartol et al., 2009; Liao, 2008; Wayne et al., 1997).

Trust between employers and teachers is crucial for fostering innovative behaviour (Gao et al., 2011). The presence of opportunistic behaviour and a lack of cooperation between employers and teachers can undermine trust, thereby hindering teachers' ability to innovate, such as holding additional sessions for challenging subjects or dedicating extra effort to students struggling with the material (Ejidike & Oyelana, 2015). According to UNESCO (2015), employers, including both government and private entities, that prioritise building strong, trust-based relationships with teachers are more likely to promote the delivery of quality education through innovative teaching methods. Developing a trusting relationship is one of the best strategies for allowing innovative behaviour in any organisation. The importance of developing trust in secondary school teachers in Tanzania cannot be ignored due to the predominant variation of school performance that signals differences in teachers' innovative behaviour across private and government secondary schools (Boniface, 2016). However, Rowan et al. (1997) and Stelmachowicz (1991) argue that there is limited research on the factors influencing trust and their impact on employees' performance in relation to innovative behaviour within the employer-employee dyadic relationship.

Moreover, previous studies that have been conducted on innovative behaviour, such as one conducted in telecommunication companies in China, have shown that trust influences innovative behaviour without being clear on the factors that influence trust and whether the factors that influence trust can have a direct or indirect influence on innovative behaviour (Gao et al., 2011). Another study that was conducted by Rees et al. (2013) on innovative behaviour based on two organisations (support services and waste management), both in the UK, noted that when employees have trust in both senior supervisors and lower supervisors, the level of innovative behaviour increases without stipulating clear on what factors that influence trust and whether these factors have direct or indirect influence on employees' innovative behaviour.

This study aimed to explore the factors influencing secondary school teachers' innovative behaviour in Tanzania, focusing on the mediating role of trust. The central research question addressed was: "Is trust the missing link in the drivers of secondary school teachers' innovative behaviour in Tanzania?". Specifically, the study examined the relationships between opportunism and trust, cooperation and trust, opportunism and teachers' innovative behaviour, and cooperation and teachers' innovative behaviour. It also explored the relationship between trust and teachers' innovative behaviour and the mediating role of trust in the links between opportunism and teachers' innovative behaviour, as well as cooperation and teachers' innovative behaviour.

Theoretical Framework

This study is guided by social exchange theory (SET). As described by Miles (2012), SET was introduced by Homans in 1958, a prominent American psychologist. The theory examines the effort individuals invest in their relationships and is particularly useful for understanding the dynamics between employers and teachers. It provides a framework for analysing human behaviour in relationships by positing that interactions are driven by the pursuit of rewards and the avoidance of penalties. The theory operates on several key principles: individuals seek to maximise benefits while minimising costs; they evaluate the potential rewards and expenses of their actions before engaging; and they recognise that rewards and costs vary among individuals and can change over time for the same individual. These principles make SET a valuable lens for exploring relational dynamics in professional contexts. Generally, the theory assumes that the level of expectation determines the efforts exerted by people engaged in the relationship (Blau, 1964; Homans, 1961). Thus, based on the highlighted conditions, it can be argued that the theory of exchange operates under the norm of reciprocity, which can be positive or negative behaviour (Gervasi & Faldetta, 2019; Leybman et al., 2011).

Reciprocity entails that each party in the relationship has something valuable that the other desires (Emerson, 1976). The theory provides constructs, either explicitly or implicitly, that can be used to characterise the nature of relationships as well as the attitudes and behaviours of those involved (Bartol et al., 2009; Liao, 2008; Wayne et al., 1997). From this connection, opportunism and innovative behaviour constructs can be fetched from Wayne et al. (1997), and cooperation and trust can be fetched from Liao (2008) and Bartol et al. (2009). Based on the nature of relationship and reciprocity, it can be proposed that opportunistic practices of employers can distort teacher's innovative behaviour while cooperative practices accelerate innovative behaviour. However, sometimes actions influence behaviour through attitude (Aguinis, 2013). Thus, it is imperative to investigate how actions (opportunism and cooperation) in relationships can directly influence innovative behaviour and how they can indirectly influence innovative behaviour through attitude (trust). Hence, given the dyadic nature of the unit of analysis in this study, the social exchange theory was found to be suitable for the study.

However, despite the positive insights derived from the social exchange theory, the theory is criticised on the grounds that all human contacts would have to be regarded as social exchanges under the theory's suppositions; exchange relationships are a poorly defined notion; and the theory reduces human interactions to only fleeting, self-serving exchanges, which oversimplifies human interactions (Miles, 2012).

Literature Review and Hypotheses Development

Employer's opportunism and employee's innovative behaviour

Previous studies have revealed that trust has a positive association with employees' innovative behaviour without making clear what factors influence trust and whether these factors have a direct influence on employees' voice behaviour (Gao et al., 2011). Thus, borrowing the opportunism construct as one of the constructs found to influence trust, as supported by previous studies by Glavee-Geo et al. (2020) and Glavee-Geo (2012), it can be of value to check if opportunism can have a direct influence on innovative behaviour, as the social exchange theory suggests that actions in a particular relationship influence behaviour (Miles, 2012). Therefore, hypothesis one, based on secondary school teacher's perception of the dyadic relationship between employer and teacher, is developed as follows:

H_1: There is a negative association between teachers' perceived employer opportunism and innovative behaviour.

Cooperation and employee's innovative behaviour

Past studies confirmed that trust has a positive association with employees' innovative behaviour without making clear what factors influence trust and whether these factors have a direct influence on employees' innovative behaviour (Gao et al., 2011; Arıkan, 2020). Thus, borrowing the cooperation construct as one of the constructs found to influence trust, as supported by previous studies by Glavee-Geo et al. (2020) and Glavee-Geo (2012), it can be of value to check if cooperation can have a direct influence on innovative behaviour, as the social exchange theory suggests that actions in a particular relationship influence behaviour (Miles, 2012). Therefore, hypothesis two is developed as follows:

H_2: There is a positive association between teachers' perceived cooperation and innovative behaviour.

Employer's opportunism, trust and employee's innovative behaviour

Drawing insights from a study conducted in the UK, which differs significantly from the Tanzanian context—a developing economy—and focused on employees from two distinct companies (a service support company and a waste management company, rather than the education sector), it was revealed that trust can mediate the relationship between opportunism and employees' innovative behaviour (Rees et al., 2013). Additionally, opportunism was found to influence trust in Ghana's agro-commodity chain (Glavee-Geo, 2012). Though social exchange theory focuses on describing how actions such as opportunism may influence behaviour (Miles, 2012), it is imperative to check how opportunism can influence behaviour through attitude variable such as trust.

Thus, it sounds worth examining the influence of employer opportunism when mediated by trust on teacher's innovative behaviour. Moreover, according to Bhoopalan et al. (2014), when testing the effect of mediating variable between independent variable and dependent variable, it is crucial to understand the direct impact of independent variable (employer opportunism) on mediating variable (trust) and the direct effect of mediating variable (trust) on dependent variable (teacher's innovative behaviour). Therefore, hypotheses three, four and five are proposed as follows:

H_3: There is a negative association between teachers' perceived employer opportunism and trust.

H_4: There is a positive association between teachers' perceived trust and innovative behaviour.

H_5: Teacher's perceived trust mediates the negative association between teachers' perceived employer opportunism and innovative behaviour.

Cooperation, trust and employee's innovative behaviour

Again, building on findings from a study conducted in the UK, which differs from the Tanzanian context—a developing economy—and focused on employees from two companies (a service support company and a waste management company, distinct from the education sector), it was revealed that trust can mediate the relationship between cooperation and employees' innovative behaviour (Rees et al., 2013). Additionally, cooperation was found to influence trust in Ghana's agro-commodity chain (Glavee-Geo, 2012). Though social exchange theory focuses on describing how actions such as cooperation may influence behaviour (Miles, 2012), it is imperative to check how cooperation can influence behaviour through attitude variables such as trust. Thus, it sounds worth examining the influence of cooperation when mediated by trust on teachers' innovative behaviour. Moreover, according to Bhoopalan (2014), when testing the effect of a mediating variable between an independent variable and a dependent variable, it is crucial to understand the direct effect of the independent variable (cooperation) on the mediating variable (trust) and the direct effect of mediating variable (trust) on the dependent variable (teacher's innovative behaviour). Therefore, hypotheses six and seven are proposed as follows:

H_6: There is a positive association between teachers' perceived cooperation and trust.

H_7: Teachers' perceived trust mediates the positive association between teachers' perceived cooperation and innovative behaviour.

Conceptual framework

The research conceptual framework, as presented in Figure 1, proposes direct associations between employers' opportunism and cooperation and teachers' trust and innovative behaviour, as well as how trust is associated with teachers' innovative behaviour. Moreover, the indirect associations of employers' opportunism and cooperation on teachers' innovative behaviour are observed when passing through trust. The exchange relationship between an employer and a teacher is a typical example of a dyadic relationship. The interaction between the employer and the teacher in an exchange relationship is viewed as social behaviour (Glavee-Geo et al., 2020. In this study, teachers' innovative behaviour is considered a dependent variable. On the other hand, employers' opportunism and cooperation, as perceived by secondary school teachers, are regarded as independent variables, while trust is viewed as a mediator. From the research conceptual framework in Figure 1, five direct hypotheses and two indirect hypotheses can be articulated.

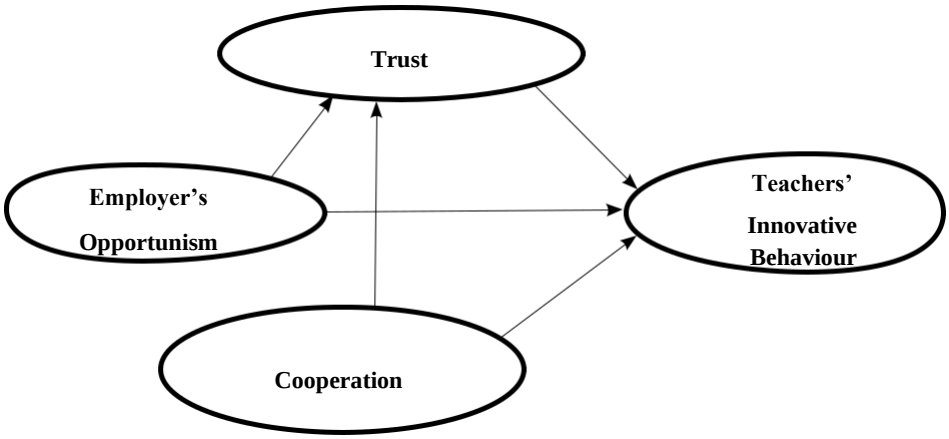

Figure 1: *Conceptual framework*

Source: Synthesised from Literature

Methodology

This study employed a quantitative research approach based on positivism, whereby a cross-sectional design as one type of descriptive research design was involved and the data used was collected only once from the field (Frankfort & Nachmias, 1996). Based on 2018 statistics, the total estimated number of secondary school teachers in Tanzania mainland was 106,847 (Ndalichako, 2018). According to Krejcie and Morgan (1970), the population of 106,847 secondary school teachers in Tanzania can offer a sample size of at least 384 secondary school teachers, which is considered a good representative. Based on stratified and random sampling methods, developed questionnaires were distributed to 1,100 secondary school teachers in six zones. Stratified sampling was employed to ensure an adequate representative sample size for

the six zones, i.e., the Northern zone comprising Arusha: 72, Manyara: 24, Tanga: 53 and Kilimanjaro: 96 regions; Southern Highlands zone consisting of Rukwa: 17, Mbeya: 64, Iringa: 43, Songwe: 20, Ruvuma:38 and Njombe: 30 regions; Coastal zone comprising Morogoro: 60, Dar es Salaam:141, Mtwara:20, Coast (Pwani): 54 and Lindi: 12; Western zone consisting of Kigoma: 35 and Katavi: 6 regions; Central zone comprising Singida: 21, Tabora: 30 and Dodoma: 36 regions; and Lake zone comprising Simiyu:19, Geita: 23, Shinyanga: 27, Kagera: 50, Mwanza: 74 and Mara: 35 regions. The questionnaire was employed in this study due to its simplicity, reliability, limited time, and cost savings. The response rate based on the complete returned questionnaire was 916, equal to 83.27%, which is the acceptable rate for social studies.

A 7-point Likert scale ranging from 1 strongly disagree to 7 strongly agree for each indicator of a target variable was employed in this study. The items used to measure the reflective latent variables used in this study were adapted from previous studies with minor modifications to suit this study. Secondary school teachers' innovative behaviour was measured by adapting six items from LePine and Van Dyne (1998). Cooperation was measured by adapting six items from Glavee-Geo (2012) and Glavee-Geo et al. (2020). Employers' opportunism was measured by adapting seven items from Glavee-Geo et al. (2020) and Glavee-Geo (2012). Trust was measured by adapting five items from Glavee-Geo et al. (2020) and Glavee-Geo (2012). The characteristics of respondents in this study in terms of regions, gender, and age are presented in Table 1.

Table 1

Sample Characteristics (n=916)

Demographic Characteristics	Category	Frequency	Per cent
Secondary school teachers' experience	1-5	475	51.9
	6-10	213	23.3
	11-16	70	7.6
	Above 16	158	17.2
Gender	Male	255	27.8
	Female	661	72.2
Age	<30	396	43.2
	30-40	305	33.3
	41-50	176	19.2
	>50	39	4.3

Education Level	Diploma	486	53.1
	Bachelor's Degree	259	28.3
	Master's Degree	171	18.7
School Ownership	Public Secondary Schools	466	50.9
	Private Secondary Schools	450	49.1

Source: Field data (2023)

Moreover, this study tested the existence of common method bias to align with the requirements. Harman's single-factor test was performed based on principal component analysis while ensuring an unrotated single construct. Based on the principal component analysis, it can be observed that the unrotated single construct was 29.628% smaller than 50% on all observed measures, indicating the absence of common method bias for the employed structural equation modelling in this study.

Data Analysis

This study employed Partial Least Square Structural Equation Modelling based on SmartPLS version 3.3.3 for both data analysis and findings as proposed by Ringle et al. (2015). Descriptive statistics for measures of each construct were employed in this study to describe their features, as presented in Table 2. The extent to which one construct measures what it was intended, as well as its uniqueness, were assessed using both convergent validity and discriminant validity. Based on the Average Variance Extracted (AVE) values presented in Table 3, which range from 0.624 to 0.674, the data used in this study confirm convergent validity. This is because the AVE values for each construct exceed the recommended threshold of 0.5, as noted by Fornell and Larcker (1981).

The level of discriminant validity in this study was assessed based on two approaches. The first approach was based on the matching score of the AVE square root of each construct and its association with other constructs. From Table 3, it can be observed that all scores of the AVE square root of each construct were above the scores describing the associations with other employed constructs and were in line with the condition set by Fornell and Larcker (1981). More assessment of discriminant validity was based on cross scores, as presented in Table 4, whereby one construct distinguished itself from other constructs by scoring higher in its respective columns and rows. Additionally, the Heterotrait-monotrait ratio of correlations (HTMT) scores

were further used to assess the presence of discriminant validity in this study. It was observed that all scores were below 0.85, confirming the presence of discriminant validity, which was in line with Hair et al. (2017) and Henseler et al. (2015).

Furthermore, the issue of consistency for measures employed for each construct was assessed. As presented in Table 3, both composite reliability and Cronbach's alpha for each construct were above the threshold of 0.7, implying that the measures of each construct were consistent in line with Hair et al. (2017). Also, the loadings, as presented in Table 2, confirmed the existence of consistency in measures of constructs, as all loadings were above 0.70.

Table 2

Latent Variables, Measures, Descriptive Statistics and Loadings (n = 916)

Latent Variable	Source	Code	M	SD	Loadings#
Cooperation	Glavee-Geo (2012); Glavee-Geo et al. (2020)	COP1	4.02	1.91	0.794***
		COP2	4.06	1.82	0.859***
		COP3	4.02	1.81	0.771***
		COP4	4.23	1.73	0.848***
		COP5	4.57	1.74	0.807***
		COP6	4.71	1.78	0.701***
Opportunism	Glavee-Geo et al. (2020); Glavee-Geo (2012)	OPP1	4.03	1.64	0.792***
		OPP2	4.07	1.89	0.882***
		OPP3	4.00	1.94	0.852***
		OPP4	4.02	1.81	0.838***
		OPP5	4.08	1.93	0.849***
		OPP6	4.01	1.83	0.706***
		OPP7	4.05	1.89	0.816***
Trust	Glavee-Geo et al. (2020); Glavee-Geo (2012)	T3	5.32	1.97	0.809***
		T4	5.74	1.8	0.853***
		T5	5.94	1.84	0.718***
		T6	5.08	1.99	0.858***
		T7	5.87	1.92	0.825***

Teachers' Innovative Behaviour	LePine and Van Dyne (1998)	IB1	4.55	1.97	0.811***
		IB2	4.80	1.83	0.856***
		IB3	4.76	1.84	0.757***
		IB4	4.24	1.95	0.759***
		IB5	4.51	1.92	0.784***
		IB6	4.01	2.02	0.769***

Note: # Based on 5000 bootstrapping samples *** p < 0.001 (two-tailed), ** p < 0.05 (two-tailed).

Source: Field data (2023)

Table 3

Reliability, Average Variance Extracted (AVEs) and Discriminant Coefficients (n=916)

Construct	Composite reliability	Cronbach's Alpha	AVE	1	2	3	4
Cooperation	0.913	0.885	0.637	**0.798**			
Opportunism	0.935	0.919	0.674	-0.067	**0.821**		
Innovative Behaviour	0.909	0.879	0.624	0.453	-0.155	**0.790**	
Trust	0.907	0.872	0.663	0.491	-0.144	0.546	**0.814**

Note: Bold numbers on the diagonal show the square root of the AVEs; Numbers below the diagonal represent construct correlations.

Source: Field data (2023)

Table 4

Demonstrating Discriminant Validity based on Cross-loadings (n = 916)

	Cooperation	Opportunism	Trust	Innovative Behaviour
COP1	**0.794**	-0.034	0.378	0.419
COP2	**0.859**	-0.070	0.440	0.399
COP3	**0.771**	-0.010	0.383	0.371
COP4	**0.848**	-0.100	0.389	0.354
COP5	**0.807**	-0.060	0.402	0.359
COP6	**0.701**	-0.048	0.336	0.224
OPP1	-0.034	**0.792**	-0.118	-0.131
OPP2	-0.068	**0.882**	-0.146	-0.116
OPP3	-0.059	**0.852**	-0.094	-0.110

OPP4	-0.069	**0.838**	-0.094	-0.132
OPP5	-0.059	**0.849**	-0.150	-0.142
OPP6	-0.036	**0.706**	-0.114	-0.120
OPP7	-0.060	**0.816**	-0.091	-0.122
T3	0.379	-0.073	**0.809**	0.495
T4	0.434	-0.136	**0.853**	0.500
T5	0.453	-0.133	**0.718**	0.297
T6	0.399	-0.132	**0.858**	0.470
T7	0.337	-0.115	**0.825**	0.446
IB1	0.338	-0.076	0.514	**0.811**
IB2	0.443	-0.157	0.451	**0.856**
IB3	0.391	-0.116	0.366	**0.757**
IB4	0.379	-0.145	0.398	**0.759**
IB5	0.320	-0.134	0.396	**0.784**
IB6	0.271	-0.107	0.459	**0.769**

Note: Bold values are significant at approximately $p < 0.05$.

The table assesses discriminant validity based on cross scores, whereby one construct distinguishes itself from other constructs by scoring higher in its respective columns and rows.

Source: Field data (2023)

Findings

As presented in Table 5 and Figure 2, the coefficient of determination (R^2) for secondary school teachers' innovative behaviour is 0.349, indicating that 34.9% of its variation can be explained by opportunism, cooperation, and trust. Similarly, an R^2 value of 0.253 implies that 25.3% of the variation in perceived trust among secondary school teachers can be attributed to opportunism and cooperation. Additionally, the estimation of coefficients describing direct associations within the conceptual framework was statistically significant, as shown in Table 5 and Figure 2. These results confirm the direct hypotheses constructed in this study. Specifically, the findings supported hypothesis one (H1), which posited a negative association between employers' opportunism and secondary school teachers' innovative behaviour ($\beta = -0.078$, $t = 2.812$, $p < 0.10$).

Conversely, the findings supported hypothesis two (H_2), which stated that there is a positive association between cooperation and secondary school teachers' innovative behaviour ($\beta = 0.245$, $t = 7.513$, $p < .01$). The findings supported hypothesis three (H_3) which stated that there is a negative association between teachers' perceived employer opportunism and trust ($\beta = -0.112$, $t = 4.051$, $p <$

.05). Morever, the findings supported hypothesis four (H_4) which stated that there is a positive association between teachers' perceived trust and innovative behaviour ($\beta = 0.414$, $t = 14.271$, $p < .01$). The findings supported hypothesis six (H_6) which stated that there is a positive association between teachers' perceived cooperation and trust ($\beta = 0.483$, $t = 19.200$, $p < .01$).

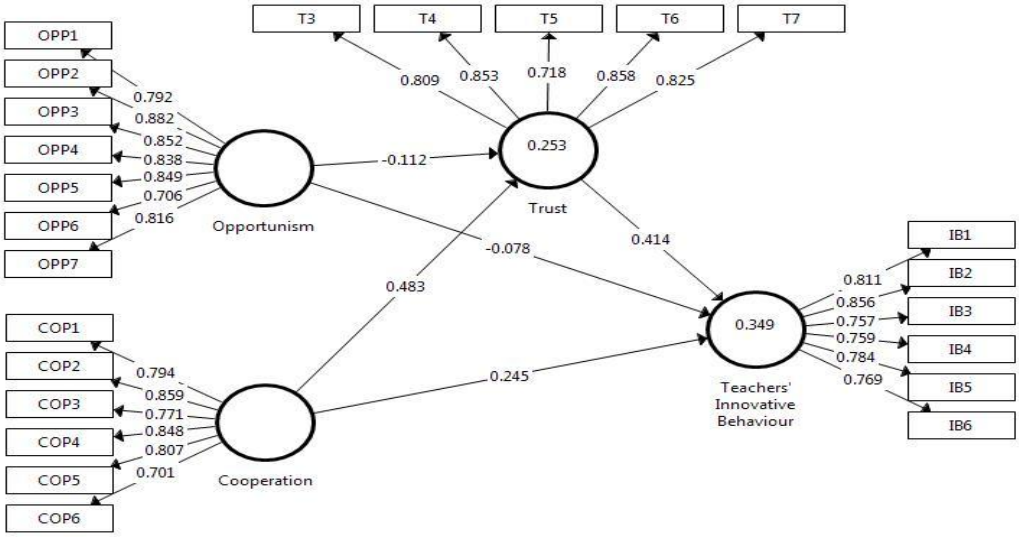

Figure 2: *Structural model of direct effects on trust and teachers' innovative behaviour*

Source: Field data (2023)

Table 5

Structural Model Results, Effect Sizes (f^2) and Collinearity (VIF) (n=916)

Criterion	R^2	Predictors	Path Coefficients	t-Values	f^2	VIF
Innovative Behaviour	0.349	Opportunism	-0.078	2.812*	0.009	1.02
		Cooperation	0.245	7.513***	0.070	1.32
		Trust	0.414	14.271***	0.197	1.34
Trust	0.253	Opportunism	-0.112	4.051***	0.017	1.01
		Cooperation	0.483	19.200***	0.311	1.01

Notes: #Based on 5000 bootstrapping samples *** p<0.01, ** p<0.05, * p<0.10 (two-tailed), effective size (f2) measures the effect of the specific predictor on an endogenous construct (0.02 small, 0.15 medium, 0.35 large (Hair et al., 2019; Cohen, 1988).

Source: Field data (2023)

From Table 6 and Figure 3, it can be noted that the estimation of coefficients describing indirect associations (mediation effects) in the conceptual framework was statistically significant, confirming constructed indirect (mediation) hypotheses in this study. The findings supported hypothesis five (H_5), which stated that trust mediates a negative association between employers' opportunism and secondary school teachers' innovative behaviour ($\beta = -0.046$, $t = 3.960$, $p < .01$). Furthermore, the findings provide evidence that trusts mediates a negative association between employers' opportunism and secondary school teachers' innovative behaviour. ($\beta = -0.020$, $t = 3.309$, $p < .01$). Furthermore, the findings supported hypothesis seven (H_7) which specified that trust mediates a positive association between cooperation and secondary school teachers' innovative behaviour ($\beta = 0.200$, $t = 12.035$, $p < .01$).

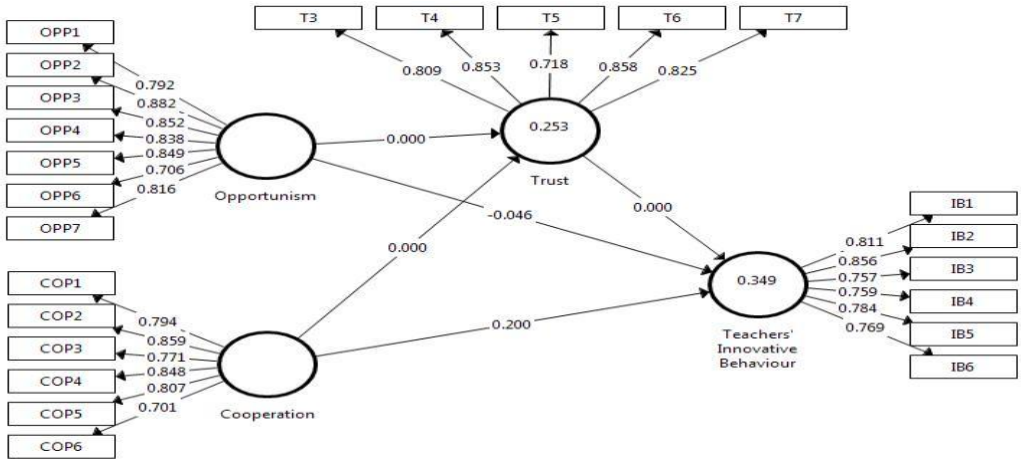

Figure 3: *Structural model of indirect (mediating) effects on teachers' innovative behaviour*

Source: Field data (2023)

Table 6

Indirect (Mediation) Effects, (n=916)

Mediation Relationship	Indirect Effect	t-Values
Opportunism->Trust – > Innovative Behaviour	-0.046	3.960***
Cooperation->Trust – > Innovative Behaviour	0.200	12.035***

Note: #Based on 5000 bootstrapping samples *** p<0.01, ** p<0.05, * p<0.10 (two-tailed), mediator variable shown between arrows.

Source: Field data (2023)

From Table 7, Table 8 and Figure 4, it can be observed that the total effect of employer's opportunism on secondary school teachers' innovative behaviour was obtained by adding both the employer's opportunism direct effect and the employer's opportunism indirect effect when mediated by trust on secondary school teacher's innovative behaviour. Employer's opportunism total effect on secondary school teacher's innovative behaviour was strongly supported ($\beta = -0.125$, $t = 4.153$, $p < .01$). The β coefficient for total employer's opportunism effect can be interpreted as 1 unit increase in total employer's opportunism reduces secondary school teacher's innovative behaviour in the employer-secondary school teacher dyadic relationship by 0.125 units.

Moreover, from Table 7, Table 8 and Figure 4, it can be observed that the total effect of cooperation on secondary school teachers' innovative behaviour was obtained by adding both cooperation direct effect and cooperation indirect effect when mediated by trust on secondary school teachers' innovative behaviour. Cooperation total effect on secondary school teacher's innovative behaviour was strongly supported ($\beta = 0.445$, $t = 16.107$, $p < .01$). The β coefficient for the perceived total cooperation effect can be interpreted as 1 unit increase in total cooperation improves secondary school teacher's innovative behaviour in the employer-secondary school teacher dyadic relationship by 0.445 units. From Table 8, it can be observed that VAF values are less than 50%, implying that the mediation effects, as hypothesised in H_5 and H_7, have a partial effect.

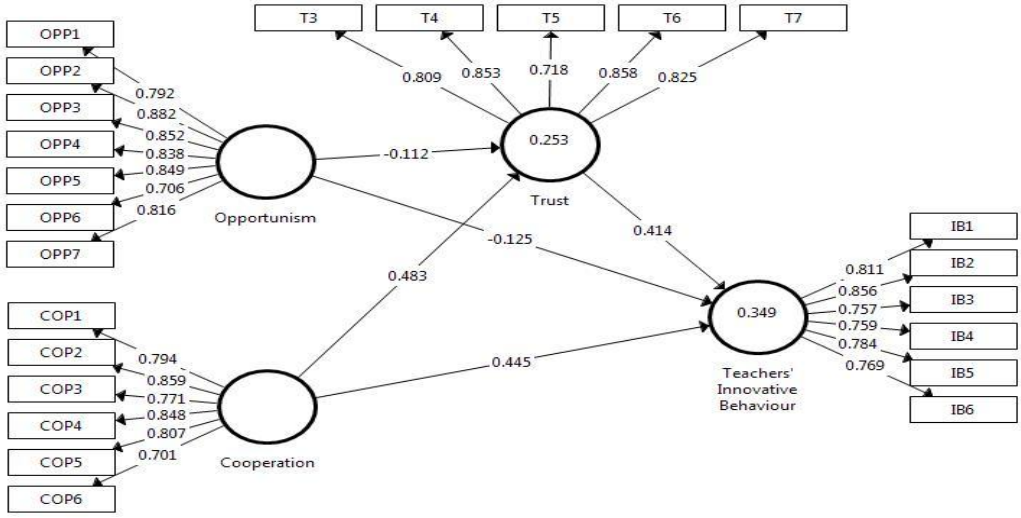

Figure 4: *Structural model of total effects on teachers' innovative behaviour*

Source: Field data (2023)

Table 7

Total Effect (Sum of Direct and Indirect Effects)

Relationship	Total Effect	t-Values
Opportunism – > Innovative Behaviour	-0.125	4.153***
Cooperation-> Innovative Behaviour	0.445	16.107***

Source: Field data (2023)

Table 8

Total Effect and Variance Accounted for (VAF) for Complimentary Mediators

Mediation Relationship	Direct Effect	Indirect Effect	Total Effect	VAF
Opportunism – > Trust – > Innovative Behaviour	-0.078	-0.046	-0.125	36.8%
Cooperation – > Trust – > Innovative Behaviour	0.245	0.200	0.445	44.9%

Source: Field data (2023)

Importance Performance Map Analysis (IPMA)

The importance-performance map analysis takes into account the latent variable score's performance and finds the exogenous variables that explain the variance of the endogenous target construct and have an importance or total effect (Ringle & Sarstedt, 2016).

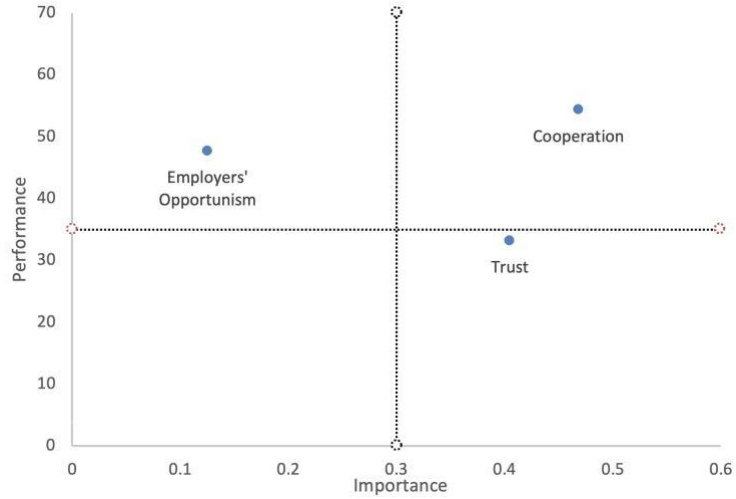

Figure 5: *IPMA at construct level on teachers' innovative behaviour as a target construct*

Source: Field data (2023)

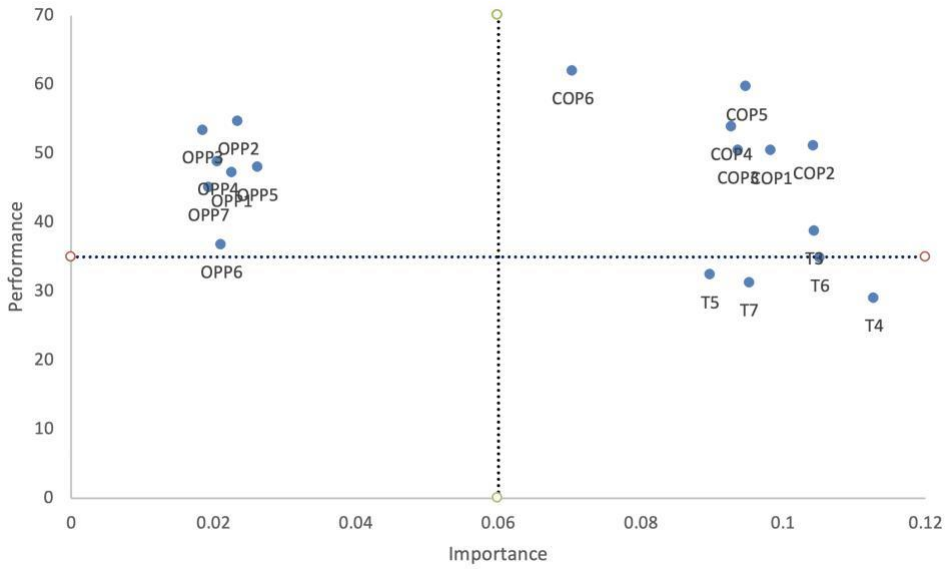

Figure 6: *IPMA at indicators level on teachers' innovative behaviour as a target construct*

Source: Field data (2023)

The findings, as illustrated in Figure 5, suggest that cooperation and trust constructs are significant and appear to function well, whereas the opportunism construct seems to be of less value. Additionally, based on the indicator level, the results displayed in Figure 6 indicate that most cooperation and trust items are significant and appear to function more effectively. However, most opportunistic indicators appear to have little consequence. In light of these findings, employers are urged to focus more on enhancing cooperation and developing trust with secondary school teachers, as these constructs are essential for strengthening innovative behaviour.

Discussion of the Findings

The study explored the role of opportunism and cooperation on secondary school teachers' innovative behaviour with the mediating role of trust. The discussion of the findings is based on the objectives of the study, namely to investigate the associations between opportunism and trust, cooperation and trust, opportunism and secondary school teachers' innovative behaviour, cooperation and secondary school teachers' innovative behaviour; trust and secondary school teachers' innovative behaviour; and the mediating role of trust on the associations between opportunism and secondary school teachers' innovative behaviour; cooperation and secondary school teachers' innovative behaviour.

The findings of this study have supported hypothesis one (H1) by statistically proving that "There is a negative association between teachers' perceived employer

opportunism and innovative behaviour". This means that the higher the level of opportunistic actions perceived by secondary school teachers, the lower the level of innovative behaviour. The significance of hypothesis one (H1) empirically confirms that employers of secondary school teachers should focus on avoiding opportunistic practices in the relationship to facilitate innovative behaviour. Though in different sectors, the findings are consistent with the study findings by Glavee-Geo et al. (2020) and Glavee-Geo (2012). The findings are consistent with social exchange theory, which suggests that negative actions in a particular relationship facilitate negative behaviour (Miles, 2012).

The findings of this study have supported hypothesis two (H2) by statistically proving that "There is a positive association between teachers' perceived cooperation and innovative behaviour". This means that the higher the level of cooperation perceived by secondary school teachers, the higher the level of innovative behaviour. The significance of hypothesis two (H2) empirically confirms that employers of secondary school teachers should focus on enhancing cooperative practices in the relationship to facilitate innovative behaviour. Though in different sectors, the findings are consistent with the study findings by Glavee-Geo et al. (2020) and Glavee-Geo (2012). The findings are consistent with social exchange theory, which suggests that positive actions in a particular relationship influence positive behaviour (Miles, 2012).

The findings of this study have supported hypothesis three (H3) by statistically proving that "There is a negative association between teachers' perceived employer opportunism and trust''. This means that the higher the level of opportunistic actions perceived by secondary school teachers, the lower the level of trust. The significance of hypothesis three (H3) empirically confirms that employers of secondary school teachers should focus on avoiding opportunistic practices in the relationship to facilitate trust. Though in different sectors, the findings are consistent with the study findings by Glavee-Geo et al. (2020) and Glavee-Geo (2012). The findings are consistent with social exchange theory, which suggests that negative actions in a particular relationship facilitate negative attitudes (Miles, 2012).

The findings of this study have supported hypothesis four (H4) by statistically proving that "There is a positive association between teachers' perceived trust and innovative behaviour". This means that the higher the level of trust perceived by secondary school teachers, the higher the level of innovative behaviour. The significance of hypothesis four (H4) empirically confirms that employers of secondary school teachers should focus on enhancing trust attitude in the relationship to facilitate innovative behaviour. Though in different sectors, the findings are consistent with the study findings by Gao et al. (2011), Glavee-Geo et al. (2020), Glavee-Geo (2012) and Rees et al. (2013). The findings are consistent with social exchange theory, which suggests that a positive

attitude in a particular relationship facilitates positive behaviour (Miles, 2012).

The findings of this study have supported hypothesis five (H5) by statistically proving that "Teacher's perceived trust mediates the negative association between teachers' perceived employer opportunism and innovative behaviour". From results as presented in Figure 2 and Table 5, it can be observed that trust meets the condition of being a mediator since opportunism as an independent variable has a negative association with trust and trust has a positive association with secondary school teachers' innovative behaviour (Baron & Kenny, 1986; Hayes, 2017). However, the mediating role of trust in the association between opportunism and secondary school teachers' innovative behaviour is partial, as the direct effect of opportunism on secondary school teachers' innovative behaviour is more than the effect of opportunism on secondary school teachers' innovative behaviour when mediated by trust as can be observed in Figure 2, Table 5, Figure 3 and Table 6 accordingly (Rucker et al., 2011). This means that some association between opportunism and innovative behaviour can be explained through trust. The significance of hypothesis five (H5) empirically confirms that employers of secondary school teachers should focus on avoiding opportunistic practices while facilitating trust in the relationship to facilitate innovative behaviour. The findings agree with social exchange theory, suggesting that actions in a particular relationship are associated with attitude, which in turn is associated with behaviour (Miles, 2012).

The findings of this study have supported hypothesis six (H6) by statistically proving that "There is a positive association between teachers' perceived cooperation and trust". This means that the higher the level of cooperation perceived by secondary school teachers, the higher the level of trust. The significance of hypothesis six (H6) empirically confirms that employers of secondary school teachers should focus on enhancing cooperative practices in the relationship to facilitate a trusting attitude. The findings are consistent with the study findings by Glavee-Geo et al. (2020) and Glavee-Geo (2012). The findings are consistent with social exchange theory, which suggests that positive actions in a particular relationship influence positive attitudes (Miles, 2012).

The findings of this study have supported hypothesis seven (H7) by statistically proving that "Teachers' perceived trust mediates the positive association between teachers' perceived cooperation and innovative behaviour". From the results, as presented in Figure 2 and Table 5, it can be observed that trust meets the condition of being a mediator since cooperation as an independent variable has a negative association with trust and trust has a positive association with secondary school teachers' innovative behaviour (Baron & Kenny, 1986; Hayes, 2017). However, the mediating role of trust on the association between cooperation and secondary school teachers' innovative behaviour is partial, as the direct effect of cooperation

on secondary school teachers' innovative behaviour is more than the effect of cooperation on secondary school teachers' innovative behaviour when mediated by trust as can be observed in Figure 2, Table 5, Figure 3 and Table 6 accordingly (Rucker et al., 2011). This means that some association between cooperation and innovative behaviour can be explained through trust. The significance of hypothesis seven (H7) empirically confirms that employers of secondary school teachers should focus on encouraging cooperative practices while facilitating trust in the relationship to facilitate innovative behaviour. The findings concur with social exchange theory, suggesting that actions in a particular relationship are associated with attitude, which, in turn, is associated with behaviour (Miles, 2012).

Implications of the Study

In this study, there are some theoretical implications of social exchange, such as actions (opportunism and cooperation) in the employer-teacher relationships influencing attitudes (trust) and behaviours (innovativeness), and the same actions through attitude can influence behaviour. Thus, this study adds to inadequate studies that were empirically based on social exchange theory to explain innovative behaviour by incorporating constructs of opportunism, cooperation, and trust. The study has demonstrated a significant linkage role of trust between drivers (opportunism, cooperation) and secondary school teachers' innovative behaviour. Most constructs incorporated in this study were precluded in previous studies that employed social exchange theory in explaining innovative behaviour (Wang et al., 2019; Jiang et al., 2018; Wang et al., 2014).

The study offers managerial and policy implications as useful insights for enhancing secondary school teachers' innovative behaviour in the education sector of Tanzania. As reflected from the f2 and importance map analysis results presented in Table 5, Figure 5, and Figure 6 accordingly, cooperation and trust are the factors that should be considered to improve the innovative behaviour of secondary school teachers. On the other hand, f2 and importance map analysis results, as presented in Table 5, Figure 5, and Figure 6, accordingly suggest that opportunism contributes less to secondary school teachers' innovative behaviour. Hence, in order to realise secondary school teachers' innovative behaviour, employers should keep on assisting secondary school teachers by being guarantors for getting services from other organisations, such as financial loans; helping secondary school teachers in whatever way requested; ensuring jointly responsible for getting teaching service done properly; solving jointly the problems arising in the relationship; and providing necessary support to secondary school teachers who devote extra time to re-teaching of topics that were not clear to students.

Similarly, employers should ensure that secondary school teachers are compensated appropriately with the level of teaching service provided, a high level of integrity con-

cerning secondary school teachers' services is attained, the right things for secondary school teachers are done, a friendship relationship with secondary school teachers is established, and accurate records of secondary school teachers' performance that can be used for deciding promotions among others are kept. Thus, appropriate policies reflecting the roles of employers to ensure secondary school teachers' innovative behaviours, such as merit compensation and promotion policies, can be established to minimise the possibility of employers acting opportunistically.

Moreover, one of the key prominent methodological implications of this study rests on the use of PLS- SEM based on SmartPLS software to investigate the role of opportunism and cooperation on secondary school teachers' innovative behaviour with the mediating role of trust. The frequently employed method for empirical data analysis in regard to innovative behaviour studies is the multiple regression analysis based on SPSS software. Thus, this study complements the notion that most studies on innovative behaviour lie behind the application of PLS-SEM based on SmartPLS software (Hair et al., 2012). Therefore, this study is one of the few studies that show how PLS-SEM can be useful in exploring factors influencing employees' innovative behaviour when mediated with trust. Thus, the study provides a working conceptual model in relation to innovative behaviour.

Conclusion

The study aimed to explore drivers of teachers' innovative behaviour with the mediating role of trust. The findings revealed that opportunism, cooperation, and trust significantly influence teachers' innovative behaviour, and opportunism and cooperation significantly influence trust. Additionally, findings showed that trust mediates the associations between opportunism and teachers' innovative behaviour and cooperation and teachers' innovative behaviour. The study offers social exchange theoretical implications such that actions in the employer-teacher relationships can influence attitude and behaviour, and the same actions through attitude can influence behaviour. Thus, managers should ensure the availability of cooperation while minimising opportunism to enhance both trust and innovative behaviour. For the purpose of attaining generalizability, future studies can be conducted in other sectors by employing PLS-SEM and constructs of opportunism, cooperation, and trust to see if the same results can be attained.

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