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Confirmatory Factor Analysis of Strategic Communication Model for Educational Administrators under the Administration of the Office of Basic Education Commission

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Abstract

This research was designed to investigate the components and indicators of educational administrators' strategic communication for the Office of Basic Education Commission in Thailand. The researchers employed a quantitative method survey design using questionnaire as research instrument. They conceptualized strategic communication components and indicators by analyzing documents and past studies to develop a strategic communication model. The measurement model tested the goodness of fit of the identified components and indicators for strategic communication with the empirical data. The results indicated that a total of 20 indicators resulting from the six components in a strategic communication model of educational administrators were found in parallel with the empirical data.

Keywords: *Components, Indicators, Office of Basic Education Commission, Strategic Communication Model*

INTRODUCTION

Creating a strategic communication model for school administrators is important because it can assist school administrators to foster a more connected and engaged school community to ensure that information flows smoothly and effectively to all stakeholders. A strategic communication model involves outlining a framework that ensures effective, clear, and consistent communication within the school community including teachers, students, parents, and the broader community (van Ruler, 2018). Setting communication objectives is a critical component of a strategic communication model because these objectives provide clear goals that guide the communication strategy and ensure that efforts are aligned with the overall mission and vision of the educational institution (Heide et al., 2018).

Another important component to create strategic communication is to evaluate the surrounding context of communication. This is essential for ensuring that strategic communication model is effective and relevant because this involves understanding the broader environment in which the educational institution operates and identifying components that can impact communication (Thielemann & Berrocal, 2023). Creating communication strategies is a vital component of a strategic communication model for educational administrators because these strategies provide a roadmap for achieving communication objectives and ensuring effective information flow within the school community (Zappettini & Rezazadah, 2023).

In addition, well-designed messages are a crucial component of a strategic communication model for educational administrators to make sure that the intended information is clear, engaging, and impactful for the target audience. Moreover, selecting appropriate communication channels is an essential component of a strategic communication model because effective channel selection ensures that messages reach the intended audience efficiently and are received in the most impactful way (Triantafillidou & Yannas, 2023). The final component of a strategic communication model is communication results follow-up because this component ensures that the effectiveness of communication strategies is evaluated, feedback is collected, and necessary adjustments are made to improve future communications (Heide et al., 2018).

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PRELIMINARY STUDY

In the preliminary study, the researchers have conceptualized strategic communication components, indicators, and their behavioural elements as illustrated in Table 1 below.

Table 1: Identification of Components, Indicators, and their Behavioural Elements of Strategic Communication Model

Components	Indicators	Behavioral Elements
Determination of communication objectives (DCO)	Analysis of received information (DCO1)	Administrators can analyze information and provide knowledge to teachers, parents, and stakeholders. (DCO1.1)
	Focusing on feelings and attitudes (DCO2)	Administrators can five the importance of feelings and attitudes of teachers, parents and stakeholders. (DOC2.1)
	Focusing on behaviour change after communication (DCO3)	Administrators can create a healthy organization culture. (DOC3.1)
Evaluating the communication context (ECC)	Considering the chances of success in communication (ECC1)	Administrators can consider the chances of success in communication with teachers, parents and stakeholders. (ECC1.1)
	Review of communication barriers (ECC2)	Administrators can review barriers of communication with teachers, parents, and stakeholders.
	Analysis of communication strengths (ECC3)	Administrators can analyze strengths in communication with teachers, parents, and stakeholders. (ECC3.1)
	Evaluating communication weaknesses (ECC4)	Administrators can assess communication weaknesses with teachers, parents, and stakeholders (ECC4.1)
Creating communication strategies (CCS)	Setting communication success goals (CCS1)	Administrators can set goals for the organization's communication success. (CCS1.1)
	Creating strategies for effective communication (CCS2)	Administrators can create strategies for the effectiveness of organizational communication. (CCS2.1)
	Determining communication success indicators (CCS3)	Administrators can determine indicators of the organization's communication success. (CCS3.1)
Communication message design (CMD)	Determining the messages are consistent with the communication objective (CMD1)	Administrators can set messages to be consistent with communication objectives. (CMD1.1)
	Creating messages that are appropriate for audience in communication (CMD2)	Administrators can create messages that are appropriate for audience in communication. (CMD2.1)
	Designing messages using interesting language (CMD3)	Administrators can design messages using interesting language. (CMD3.1)
	Flexible message design that can be adjusted according to the situation (CMD4)	Administrators can design messages flexibly and adjust them according to the situation (CMD4.1)
Choosing a communication channel (CCC)	Reviewing appropriate communication channels (CCC1)	Administrators can review communication channels appropriately (CCC1.1)
	Setting communication guidelines that are consistent with the selected channels (CCC2)	Administrators can set communication guidelines that are consistent with the chosen channels (CCC2.1)
	Evaluation communication channels (CCC3)	Administrators can evaluate communication channels (CCC3.1)
Follow-up communication (FUC)	Evaluation before using communication strategies (FUC1)	Administrators evaluate before using communication strategies using various methods (FUC1.1)
	Evaluation during communication operations (FUC2)	Administrators evaluate and follow up during communication operations (FUC2.1)
	Immediate follow up on the impact after implementing the communication strategy (FUC3)	Administrators monitor the impact immediately after implementing the communication strategy (FUC3.1)

After the researchers discussed with the experts in educational measurement and evaluation, they suggested determining a cut-off point as a mean score of more than 3.00 and less than 20 percent as the coefficient of scattering (CV), to create those indicators on the foundation of previous studies related to the strategic communication. The results indicated that all the components and indicators of strategic communication are fulfilling the conditions because the mean scores are more than 3.00 and CV values are less than 20%. Table 2 shows the results of the preliminary study.

Table 2: Identification of Components and their Indicators of Strategic Communication Model

Components	Indicators	Mean	Std. Dev.	CV
Determination of communication objectives (DCO)	Analysis of received information (DCO1)	4.37	0.70	16.14
	Focusing on feelings and attitudes (DCO2)	4.34	0.74	17.08
	Focusing on behaviour change after communication (DCO3)	4.10	0.56	13.68
Total		**4.27**	**0.67**	**15.63**
Evaluating the communication context (ECC)	Considering the chances of success in communication (ECC1)	4.33	0.67	15.54
	Review of communication barriers (ECC2)	4.38	0.74	17.04
	Analysis of communication strengths (ECC3)	4.33	0.65	15.11
	Evaluating communication weaknesses (ECC4)	4.38	0.71	16.28
Total		**4.35**	**0.69**	**15.99**
Creating communication strategies (CCS)	Setting communication success goals (CCS1)	4.39	0.74	16.95
	Creating strategies for effective communication (CCS2)	4.39	0.74	16.95
	Determining communication success indicators (CCS3)	4.19	0.73	17.53
Total		**4.21**	**0.71**	**17.06**
Communication message design (CMD)	Determining the messages are consistent with the communication objective (CMD1)	4.28	0.70	16.57
	Creating messages that are appropriate for audience in communication (CMD2)	4.04	0.67	15.44
	Designing messages using interesting language (CMD3)	4.06	0.55	13.77
	Flexible message design that can be adjusted according to the situation (CMD4)	4.41	0.73	16.74
Total		**4.29**	**0.67**	**15.63**
Choosing a communication channel (CCC)	Reviewing appropriate communication channels (CCC1)	4.32	0.65	15.18
	Setting communication guidelines that are consistent with the selected channels (CCC2)	4.36	0.73	16.90
	Evaluation communication channels (CCC3)	4.35	0.74	17.04
Total		**4.34**	**0.71**	**16.37**
Follow-up communication (FUC)	Evaluation before using communication strategies (FUC1)	4.05	0.79	19.60
	Evaluation during communication operations (FUC2)	4.11	0.74	17.97
	Immediate follow up on the impact after implementing the communication strategy (FUC3)	4.06	0.74	18.30
Total		**4.07**	**0.75**	**18.62**

Since the literature review and preliminary study above indicated that a strategic communication model in educational administration ultimately enhances the institution's ability to achieve its goals, adapt to changes, and maintain a positive and productive environment, the researchers aimed to create a strategic communication model for educational administrators under the administration of the Office of Basic Education Commission in Thailand. On top of that, the researchers tested the goodness of fit of the strategic communication model whether the components and indicators are compliance with the empirical data.

MATERIALS AND METHODS

Research Design

The researchers employed a survey design using questionnaire as a powerful tool to collect and analyze quantitative data from a group of director or deputy director to understand the phenomena of strategic communication. A survey design was a suitable research design because survey provided empirical data that could help educational administrators make informed decisions (Gay et al., 2011). Therefore, quantitative data could highlight communication trends, pinpoint communication issues, and provided a solid foundation for policy development and strategic planning of effective organizational communication.

Population and Samples

The population of this research was educational administrators consisting of directors and deputy directors from a total of 29265 of Primary and Secondary Educational Service Area Offices under the administration of the Office of Basic Education Commission throughout Thailand (Open Governmental Data Center, 2021). A multi-stage sampling was conducted to divide the population into clusters and then taking a random sample of these clusters. Within each selected cluster such as regions and types of educational service area offices, a further

random sample was taken, and this process could be repeated across multiple stages. This approach was useful for this research because a population is too large and dispersed to conduct simple random sampling effectively (Gay et al., 2011).

The underlying principle of using multi-stage sampling were to decrease travel and administrative expenditures by limiting through the population step-by-step, thus it is cost effective and efficient. The researchers employed Becker and Ismail's (2016) rule of thumb to formulate an adequate sample size (N). The identified sample size is recognized as the presence of classified practice in reaching an adequate probability for the requisite results such as model convergence, statistical precision, and statistical power for particular confirmatory factor analysis (CFA) with empirical data. The sample size required for a total population as 27799 was 660 (Krejcie & Morgan, 1970). Table 3 demonstrates the distribution of population and sample groups of this research.

Table 3: Distribution of Population and Sample Group

No.	Region	Types of Educational Service Area Office	Number of schools	Population	Samples
1.	North	Secondary	456	433	11
		Primary	5660	5377	127
		Total	**6116**	**5810**	**138**
2.	Central	Secondary	637	605	15
		Primary	5323	5056	120
		Total	**5960**	**5661**	**135**
3.	Northeast	Secondary	933	886	21
		Primary	12126	11519	272
		Total	**13059**	**12405**	**293**
4.	South	Secondary	334	317	9
		Primary	3796	3606	85
		Total	**4130**	**3923**	**94**
	Grand Total		**29265**	**27799**	**660**

Research Instrument

The researchers employed a closed ended questionnaire to collect quantitative data. After the researchers conducted a comprehensive review of existing literature related to strategic communication model in preliminary study, the researchers listed potential factors (broad categories or constructs) and indicators (specific measures or variables) that were relevant to the aim of research. The researchers organized the questionnaire into sections based on the identified components, namely determination of communication objectives (DCO), evaluating the communication context (ECC), creating communication strategies (CCS), communication message design (CMD), choosing communication channel (CCC), and follow-up communication (FUC).

An online survey questionnaire consisted of 25 closed items was utilized using a continuous five-point Likert scale to indicate respondents' responses that fit into pre-determined sets of components and indicators for evaluating the strength of perception. This questionnaire was comprised of seven sections and intended to collect information pertaining to respondents' perceptions of strategic communication practices. Section A collects respondents' demographic backgrounds, namely gender, age, working experience, highest academic degree, and job position. Section B to G was specifically designed to gauge data about strategic communication practices (20 items) consisted of six components and 20 indicators: (i) Determination of communication objectives (DCO) with three indicators, namely analysis of received information (DCO1), focusing on feelings and attitudes (DCO2), and focusing on behaviour change after communication (DCO3) (three items); (ii) Evaluating the communication context (ECC) with four indicators, namely considering the chances of success in communication (ECC1), review of communication barriers (ECC2), analysis of communication strengths (ECC3), and evaluating communication weaknesses (ECC4) (four items); (iii) Creating communication strategies (CCS) with three indicators, namely setting communication success goals (CCS1), creating strategies for effective communication (CCS2), and determining communication success indicators (CCS3) (three items); (iv) Communication message design (CMD) with four indicators, namely determining the messages are consistent with the communication objective (CMD1), creating messages that are appropriate for audience in

communication (CMD2), designing messages using interesting language (CMD3), and flexible message design that can be adjusted according to the situation (CMD4) (four items); (v) Choosing communication channel (CCC) with three indicators, namely reviewing appropriate communication channels (CCC1), setting communication guidelines that are consistent with the selected channels (CCC2), and evaluation communication channels (CCC3) (three items), and (vi) follow-up communication (FUC) with three indicators, namely evaluation before using communication strategies (FUC1), evaluation during communication operations (FUC2), and immediate follow up on the impact after implementing the communication strategy (FUC3), giving a total of 20 items.

Data Analysis

Structural Equation Modelling (SEM) was used to analyze the structural relationship between measured variables and latent constructs because it syndicates factor loading examination and path analysis or multiple regression examination (Hair et al., 2013). On top of that, SEM could estimate the multiple and interrelated dependence in a single analysis, namely endogenous and exogenous variables. In this research, the endogenous variable refers to the strategic communication and exogenous variables were the conceptualized components and indicators from the preliminary study. As a result, the researchers utilized SEM to assess how meticulously a hypothetical model fits empirical data to examine the structural equation model. The structural equation model signifies the hypothesis that denotes how identified components and indicators combine together in corresponding to the hypothesis. Hence, the researchers utilized a Confirmatory Factor Analysis (CFA) to test the structural equation model for its goodness of fit.

Goodness of fit used to test how well a statistical model or hypothesis fits the observed data. It was a measure used in this research to assess the adequacy of a model in explaining the data it was designed to analyze (McDonald & Ho, 2002). Therefore, goodness of fit tests includes χ^2 (Chi-Square), df (Degrees of Freedom), χ^2 /df, CFI (Comparative Fit Index), TLI (Tucker Lewis Index), RMSEA (Root Mean Square Error of Approximation), and SRMR (Standardized Root Mean Square Residual). The goodness of fit tests is used to determine if a sample of data fits a particular distribution. χ^2 is a measure of how well the observed data fit the model. A lower χ^2 value indicates better fit but it is influenced by sample size, so it is often interpreted alongside other fit indices. While df indicates the number of free parameters estimated in the model, it is used in calculating the χ^2 /df ratio, which helps to assess model fit. In other word, the χ^2 /df ratio provides a normalized measure of model fit, where a value closer to 1 indicates a better fit. Both CFI and TLI tests are used to compare the fit of the hypothesized model with that of a baseline model (usually a null model) hence values closer to 1 (ideally above 0.95) indicate a good fit. On the other hand, RMSEA measures the discrepancy between the model implied covariance matrix and the observed covariance matrix thus values below 0.08 (sometimes 0.05) suggest a good fit. Finally, SRMR assesses the average discrepancy between the observed and predicted correlations. This means that lower values (ideally below 0.08) indicate better fit.

RESULTS AND DISCUSSION

The results of this research are presented in accordance with the research aim as mentioned above. The researchers evaluated the validity of the observable variables using factor loading to test the goodness of fit of the strategic communication components and indicators with the empirical data.

Demographic Data of Respondents

A total of 660 distributed questionnaires were successfully collected from 660 Primary and Secondary Educational Service Area Offices in Thailand, giving a response rate of 100 percent. The majority of respondents are females (56.70%), elderly as more than 41 years old (61.50%), longer working experience as more than 11 years (41.80%) and possessed a master's degree (63.40%). The demographic data showed that researchers obtained a comprehensive and representative sample in terms of their job position in an equal distribution such as 307 directors and 353 deputy directors, made up 46.50 percent and 53.50 percent respectively. Table 4 shows the details of respondents' profile.

Table 4: Profile of Respondents

Background	Frequency (N= 660)	Percentage (%)
Gender:		
-Male	286	43.30
-Female	374	56.70
Total	**660**	**100**
Age		
-< 30 years old	48	7.20
-30 to 40 years old	206	31.30
->41 years old	406	61.50
Total	**660**	**100**
Work experience		
-<3 years	70	10.60
-3 to 5 years	149	22.60
-6 to 10 years	165	25.00
>11 years	276	41.80
Total	**660**	**100**
Position		
-Directors	307	46.50
-Deputy directors	353	53.50
Total	**660**	**100**
Academic qualification		
-Bachelor's degree	220	33.40
-Master's degree	418	63.40
-Doctoral degree	22	3.20
Total	**660**	**100**

Intercorrelation between Strategic Communication Indicators

A strategic communication model was developed by the researchers which representing the identified six components and 20 indicators through arranging them in a logical manner to reflect their interrelationships. Hence, this model would provide a comprehensive and structured overview of the ethical considerations relevant to strategic communication within the researchers' selected scope. The results of Pearson correlation coefficients were used to assess the linear relationships between pairs of 20 indicators.

Table 5 elucidates the results of intercorrelation between the 20 indicators of strategic communication indicating that there were positive correlations for all relationships between pairs of 20 indicators. This implies that as one indicator increases, the other tends to increase too. In addition, the magnitude of the correlation coefficients ranged from 0.179 to 0.818 revealing the strengths of the relationships from weak to strong, with values closer to 1 representing a stronger correlation and all the relationships are statistically significant at 0.01 level. Consequently, results also showed that the relationship between setting communication guidelines that are consistent with the selected channels indicator (CCC2) and evaluation communication channels indicator (CCC3) ($r = .818$; $r<.01$) was the highest magnitude of the correlation coefficient. However, the lowest magnitude of the correlation coefficient was creating strategies for effective communication indicator (CCS2) and focusing on feelings and attitudes indicator (DCO2) ($r = .179$; $p<0.01$), as illustrated in Table 5.

Table 5: Intercorrelations Results of Identifying Indicators of Strategic Communication Model

	DCO1	DCO2	DCO3	ECC1	ECC2	ECC3	ECC4	CCS1	CCS2	CCS3	CMD1	CMD2	CMD3	CMD4	CCC1	CCC2	CCC3	FUC1	FUC2	FUC3
DCO1	1.00																			
DCO2	.573**	1.00																		
DCO3	.226**	.241**	1.00																	

ECC1	.667**	.653**	.356**	1.00																
ECC2	.721**	.623**	.333**	.745**	1.00															
ECC3	.551**	.456**	.422**	.533**	.660**	1.00														
ECC4	.710**	.505**	.281**	.649**	.737**	.664**	1.00													
CCS1	.702**	.573**	.410**	.689**	.745**	.606**	.652**	1.00												
CCS2	.284**	.179**	.364**	.248**	.383**	.396**	.351**	.490**	1.00											
CCS3	.445**	.354**	.362**	.439**	.537**	.379**	.499**	.550**	.570**	1.00										
CMD1	.572**	.400**	.306**	.462**	.612**	.682**	.607**	.609**	.407**	.382**	1.00									
CMD2	.678**	.499**	.245**	.551**	.637**	.559**	.639**	.700**	.342**	.511**	.603**	1.00								
CMD3	.324**	.335**	.502**	.435**	.466**	.453**	.376**	.393**	.296**	.425**	.517**	.397**	1.00							
CMD4	.645**	.481**	.342**	.589**	.697**	.609**	.687**	.656**	.500**	.488**	.600**	.625**	.422**	1.00						
CCC1	.516**	.471**	.316**	.447**	.636**	.652**	.512**	.619**	.404**	.382**	.710**	.533**	.478**	.582**	1.00					
CCC2	.649**	.553**	.302**	.628**	.757**	.525**	.646**	.706**	.415**	.511**	.585**	.643**	.369**	.649**	.695**	1.00				
CCC3	.665**	.551**	.250**	.614**	.705**	.549**	.604**	.737**	.404**	.477**	.555**	.618**	.294**	.612**	.649**	.818**	1.00			
FUC1	.439**	.405**	.282**	.496**	.480**	.596**	.492**	.526**	.388**	.222**	.548**	.435**	.224**	.546**	.569**	.625**	.619**	1.00		
FUC2	.455**	.421**	.336**	.527**	.532**	.528**	.387**	.566**	.385**	.223**	.577**	.429**	.355**	.535**	.667**	.632**	.680**	.723**	1.00	
FUC3	.423**	.403**	.396**	.545**	.558**	.328**	.434**	.534**	.406**	.509**	.343**	.374**	.392**	.552**	.401**	.604**	.653**	.496**	.612**	1.00

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

Initial Results of Multicollinearity

Tolerance and VIF are measures used to assess multicollinearity among predictor variables in the context of strategic communication model. Multicollinearity occurs when two or more independent variables in a regression model are highly correlated, making it challenging to separate their individual effects on the dependent variable (Hair et al., 2013). Tolerance values range from 0 to 1, where higher values indicate lower multicollinearity. On the other hand, a low tolerance value (close to 0), suggests high multicollinearity and implies that the variable is redundant or highly correlated with others. A common threshold for tolerance is 0.1. Since the results of tolerance value were more than 0.1, suggested low multicollinearity and implied that the variables were lowly correlated or no redundant issue (refer to Table 7). VIF is the reciprocal of the tolerance

and is calculated for each predictor in the model. VIF values greater than 1 indicate the extent to which the variance of the estimated regression coefficients is increased due to multicollinearity. Since the results of VIF values are found between 1 to 5, which is considered low to moderate multicollinearity (refer to Table 6 and Table 7).

Table 6: VIF Value and its Interpretation

VIF Value	Interpretation
=1	No multicollinearity (perfectly uncorrelated with other variables).
1<VIF<5	Low to moderate multicollinearity.
VIF>5	High multicollinearity (potentially problematic).

Table 7: Tolerance and Variance Inflation Factor (VIF)

Acronym	Indicators	Tolerance	VIF
DCO1	Analysis of received information	0.313	3.198
DCO2	Focusing on feelings and attitudes	0.496	2.017
DCO3	Focusing on behaviour change after communication	0.578	1.731
ECC1	Considering the chances of success in communication	0.301	3.323
ECC2	Review of communication barriers	0.205	4.888
ECC3	Analysis of communication strengths	0.308	3.248
ECC4	Evaluating communication weaknesses	0.295	3.392
CCS1	Setting communication success goals	0.255	3.918
CCS2	Creating strategies for effective communication	0.487	2.055
CCS3	Determining communication success indicators	0.387	2.586
CMD1	Determining the messages are consistent with the communication objective	0.321	3.112
CMD2	Creating messages that are appropriate for audience in communication	0.365	2.738
CMD3	Designing messages using interesting language	0.516	1.940
CMD4	Flexible message design that can be adjusted according to the situation	0.341	2.934
CCC1	Reviewing appropriate communication channels	0.277	3.609
CCC2	Setting communication guidelines that are consistent with the selected channels	0.204	4.910
CCC3	Evaluation communication channels	0.212	4.725
FUC1	Evaluation before using communication strategies	0.326	3.067
FUC2	Evaluation during communication operations	0.251	3.986
FUC3	Immediate follow up on the impact after implementing the communication strategy	0.329	3.043

The Goodness of Fit of the Strategic Communication Components and Indicators with the Empirical Data

The researchers predicted to undertake estimates of the parameters of the strategic communication model, the validity of the identified components and their factor loading of the strategic communication practices. In particular, factor loading means the 'relative importance of the identified indicators that collectively form a specifically identified indicator in the strategic communication model of educational administrators in the Office of Basic Education Commission that had been considered. The results of the co-variance with strategic communication components ranged from 79.50 to 98.20 percent.

As presented in Table 8 below, the factor loading of all the strategic communication components are ranged from 0.892 to 0.991 and is statistically significant at 0.01. The component with the highest factor loading value is communication message design (CMD) (β = 0.991). This is followed by determination of communication objectives (DCO) (β = 0.978), evaluating the communication context (ECC) (β = 0.960), creating communication strategies (CCS) (β = 0.947), and follow-up communication (FUC) (β = 0.900). The factor that has the lowest factor loading value is choosing a communication channel (CCC) (β = 0.892). The researchers looked for values above a certain threshold, such as 0.3, to assess the significance of factor loading. In conclusion, all the essential components are found to be essential constructs of strategic communication for educational administrators who are administering in the Office of the Basic Education Commission (refer to Table 8).

Table 8: The Results of CFA for Key Components of Strategic Communication Model

Components	Factor Loading			R^2	Factor Score Coefficient (FS)
	β	S.E.	t		
Determination of communication objectives (DCO)	0.978	0.015	66.631	0.957	0.013
Evaluating the communication context (ECC)	0.960	0.007	128.123	0.921	0.003
Creating communication strategies (CCS)	0.947	0.021	44.382	0.898	0.007
Communication message design (CMD)	0.991	0.009	108.761	0.982	0.005
Choosing a communication channel (CCC)	0.892	0.011	81.699	0.795	0.000
Follow-up communication (FUC)	0.900	0.025	35.807	0.810	0.002

Furthermore, the results of the co-variance with the strategic communication indicators are found in the range of 15.60 to 84.70 percent. As demonstrated in the following Table 9, the factor loading of all the strategic communication indicators are ranged from 0.220 to 0.686 and is statistically significant at 0.01. In this line of reasoning, all the identified indicators are considered essential constructs for the strategic communication model.

Table 9: The Results of CFA for Key Indicators of Strategic Communication Model

Indicators	Factor Loading			R^2	Coefficient of Score (FS)
	β	S.E.	t		
Determination of communication objectives (DCO)					
Analysis of received information (DCO1)	0.594	0.024	24.807	0.705	0.133
Focusing on feelings and attitudes (DCO2)	0.497	0.027	18.706	0.449	0.037
Focusing on behaviour change after communication (DCO3)	0.220	0.022	9.981	0.156	0.008
Evaluating the communication context (ECC)					
Considering the chances of success in communication (ECC1)	0.546	0.022	24.905	0.656	0.065
Review of communication barriers (ECC2)	0.686	0.023	30.401	0.847	0.196
Analysis of communication strengths (ECC3)	0.470	0.022	21.520	0.527	0.011
Evaluating communication weaknesses (ECC4)	0.576	0.023	24.893	0.651	0.017
Creating communication strategies (CCS)					
Setting communication success goals (CCS1)	0.672	0.026	25.618	0.811	0.070
Creating strategies for effective communication (CCS2)	0.372	0.025	14.690	0.308	0.087
Determining communication success indicators (CCS3)	0.476	0.028	16.708	0.415	0.019
Communication message design (CMD)					
Determining the messages are consistent with the communication objective (CMD1)	0.515	0.024	21.369	0.527	0.061
Creating messages that are appropriate for audience in communication (CMD2)	0.552	0.022	24.733	0.661	0.184
Designing messages using interesting language (CMD3)	0.284	0.020	13.873	0.261	0.015
Flexible message design that can be adjusted according to the situation (CMD4)	0.584	0.024	24.062	0.626	0.017
Choosing a communication channel (CCC)					
Reviewing appropriate communication channels (CCC1)	0.509	0.022	20.757	0.602	0.031
Setting communication guidelines that are consistent with the selected channels (CCC2)	0.665	0.022	18.028	0.817	0.007
Evaluation communication channels (CCC3)	0.663	0.023	17.292	0.799	0.028
Follow-up communication (FUC)					
Evaluation before using communication strategies (FUC1)	0.538	0.028	19.155	0.468	0.031
Evaluation during communication operations (FUC2)	0.542	0.026	20.475	0.545	0.040
Immediate follow up on the impact after implementing the communication strategy (FUC3)	0.530	0.026	20.045	0.511	0.071

According to Ullman (2001), the measurement model whether is acceptable or not in SEM depending on the fit indices. The goodness of fit finding showed that the strategic communication model fits between the obtained values of collected data and the expected values as follow, $\chi^2 = 89.823$, df = 72, $\chi^2/df = 1.247$, CFI = 0.998, TLI = 0.996, RMSEA = 0.019, and SRMR = 0.019. These tests were employed to determine how associated real values are fitting to the expected values in the strategic communication model. The researchers referred to the following specialists' rules of thumb and their recommended cut-off values for evaluating fit indices in SEM as elucidated in Table 10.

Table 10: Interpretation of Goodness of Fit for Strategic Communication Model

Goodness of Fit Indexes	Real Values	Rules of Thumb or Cut-off Values	Specialist	Interpretation
χ^2/df	1.247	<2 <5	Ullman (2001) Schumacker and Lomax (2004)	Pass
CFI	0.998	≥ 0.95	Hu and Bentler (1999)	Pass
TLI	0.996	≥ 0.95	Hu and Bentler (1999)	Pass
RMSEA	0.019	<0.06 <0.07	Hu and Bentler (1999) Steiger (2007)	Pass
SRMR	0.019	<0.05	Byrne (1998)	Pass

CONCLUSION

A strategic communication model was developed and verified its goodness of fit. The results indicated that all six components have a solid, positive, and significant impact on the strategic communication of Primary and Secondary Educational Service Area Offices under the administration of the Office of the Basic Education Commission. Following this line of reasoning, educational administrators must flourish their expectations through the identified components and their indicators. It is essential for educational administrators to evaluate the surrounding context of communication so that they can develop more effective and targeted communication strategies that resonate with stakeholders and address the unique dynamics of the school community (Heide et al., 2018).

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