

Attentiveness of Cyber Surakshit Bharta (CSB) Initiative Programme among the Stakeholders of Coimbatore Constituency

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ABSTRACT

The digitization has become the most unavoidable and indispensable factor in India these days. Currently it is enforced to use new-fangled hi-tech tools and techniques to increase and to get in touch with the digitalization system and to improve its security measures in various fields such as banking, business entity/enterprises, corporate governance, industries, manufacturing sectors and other major service sectors across the India.

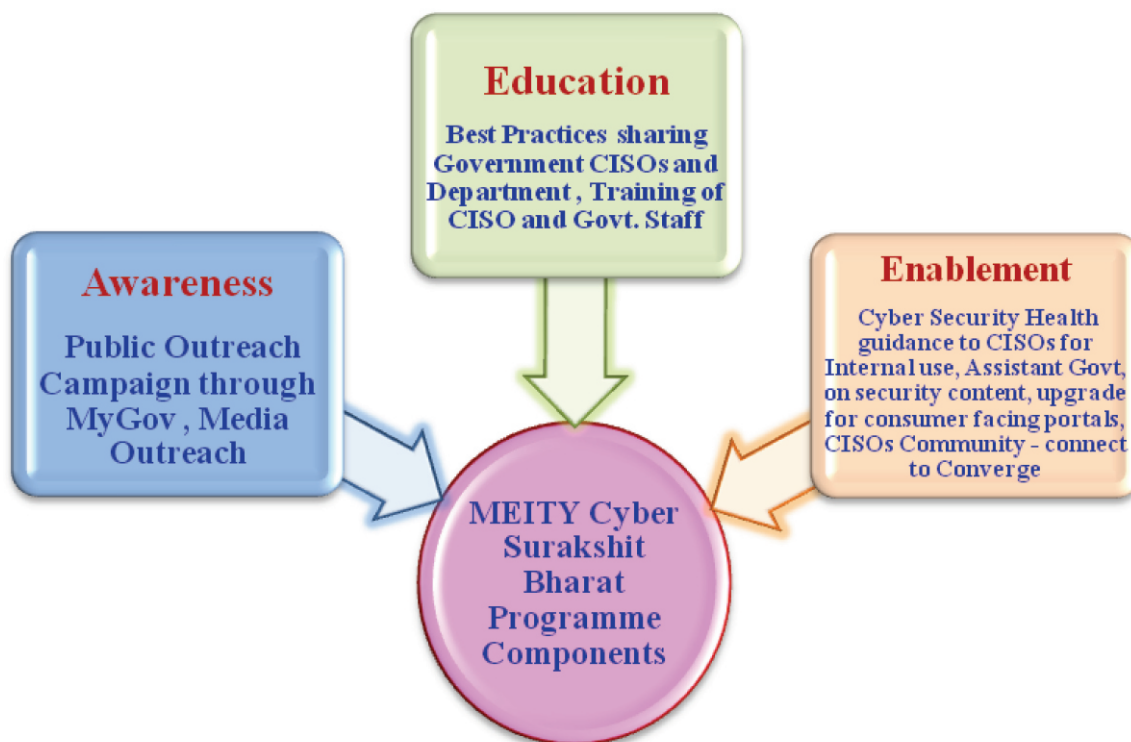
In this situation, the study mainly emphasized to know the awareness level and to extent digitization and cyber security vigilance, cyber law and various government schemes relating to the cyber security issues mainly on the Cyber Surakshit Bharata (CSB) among the urban and rural stakeholders of Coimbatore District. Where most of the stakeholders of rural and urban are involved in the digital transactions for their routine life such as digital payment systems for their business, purchase or sale of any goods or services, online payments or claim settlements through the NEFT, IMPS, tele-banking, mobile-banking/e-banking/internet banking and other digital mode of payments at various level in different industrial and service sectors. In this condition, an attempt is made to understand the awareness of the Cyber Surakshit Bharat initiative program for the security vigilance measures taken by the government to know attentiveness and the impact of this **Cyber Swachhta Kendra (CSK) in the** Coimbatore District. The investigation is carried out with the help of a well thought-out questionnaire administered to the respondents stakeholders of urban and rural region of Coimbatore and the analysis is made thereafter, which is followed by findings of the study are made.

Key Terms: Cyber Surakshit Bharat (CSB), **Cyber Swachhta Kendra (CSK)**, Chief Information Security Officers (CISO), Cyber Crisis Management Plan (CCMP), Cyber Security Policy Strategies (CSPS), Data Security Council of India (DSCI) and Computer Emergency Response Team (CERT).

Introduction

In India, the government has taken several steps to face the issues and challenges of Cyber security. The Ministry of Electronics and Information Technology (MEITY) launched the Cyber Surakshit Bharat (CSB) initiative programme jointly with National e-Governance Division (NeGD) inaugurated on 19th January, 2018 at New Delhi. The shift of CSB is intended in strengthening the cyber security ecosystem in India for the progress of the *Digital India* to a rapid revolution in the supremacy system and to ensure good authority in the country.

Figure – 1: Components of MEITY Cyber Surakshit Bharat Programme



Objective of the CSB are -

The scheme has been conceptualized to increase the awareness about cybercrime and building competence for protective actions for Chief Information Security Officers (CISOs) and frontline IT workforce in the all government departments or sectors. The principle idea of the CSB is to fortify the cyber security ecosystem in India and to implement *digital India* effectively. The aim of CSB is -

- To spread awareness about the cybercrime among all the stakeholders of various levels in India.
- Building capacity for safety measures for chief information Security Officers (CISOs) and front line IT staff across all government departments.
- To create the awareness program, training and development on the importance of cyber security and
- To conduct the series of workshops on best practices and enablement of the officials with cyber-security health tool kits to manage and mitigate cyber threats.

Objectives of the present research study

- To understand the level of awareness on cyber Cyber Surakshit Bharat programme and its importance
- To examine the impact of digitization and Cyber Surakshit Bharat initiative programme among the stakeholders; and

- To know the implications and effectiveness of digitization with the help of the CSB initiative programme.

Hypothesis of the research exertion

- H_{01} : Cyber Surakshit Bharat (CSB) initiative programme strongly influence the digitalized business transactions

Sample Design

The Multi Stage Sampling method is applied in the current study. In the first phase, the stakeholders are selected based on the business transaction in their routine life in various sectors such as manufacturing, industrial and service sectors. Second phase, area-wise selection is done, where in Tamil Nadu, Coimbatore district is chosen purposively and in the third phase, the research intense only on selected stakeholders such as employees, employers (both including private and public sectors), Information technology (IT) research scholars (R & D), Government IT project assistants, IT technicians of public sectors and others public those who use digitized tools and techniques in their routine life for various business transactions. The sample size taken for the study is 250 was randomly chosen.

Statistical Tools and Techniques

The current research study has used percentages and Structural Equation Model (SEM) - Amos (Analysis of Moment Structures) (IBM version 20.0) is used which is an easy-to-use program for visual SEM. With Amos, you can quickly specify, view, and modify your model graphically using simple drawing tools.

Sources of Data Collection

Primary data for the study are collected from the selected group of University stakeholders such as employees, employers (Including public and private sectors), and Information technology (IT) research scholars (R & D), Government IT project assistants, IT technicians of public sectors and others public.

Secondary data are collected from books, journals, research papers, newspapers, on-line sources, Reports of Economic Indicators, official government portal, various India studies, and University Library resources (Both offline and Online sources) etc.,

Analysis and Interpretation

The present study focused mainly on the awareness level of Cyber Surakshit Bharat (CSB) among the stakeholders of both rural and urban region in Coimbatore District. With the help structure questionnaire, the collected data is presented here.

Table – 1
Awareness level of various cyber security Act,
Schemes and programmes and training Programm

Cyber Security Programmes and Schemes initiated in India	Total (N)	Per Cent (%)
Chief Information Security Officer (CISO)	13	05.2
Computer Emergency Response Team (CERT -In)	03	01.2
Cyber Crisis Management Plan (CCMP)	09	03.6
Cyber Security and R & D	02	00.8
Cyber Surakshit Bharat (CSB)	39	15.6
Cyber Swachhta Kendra (CSK)	32	12.8
Data Security Council of India (DSCI)	08	03.2
Grand Challenge for Start – up India	11	04.4
Information Technology Act, 2000	52	20.8
National Cyber Security Policy	14	05.6
National Cyber Security Policy Strategies	18	07.2
Policy Level Interventions	05	02.0
Public Procurement (Preference to Make in India) Order	16	06.4
Role of State Government in IT Act	28	11.2
Total	250	100.0

Source: Survey Data, 2018

It is comprehensible from the above table, that 20.8 per cent of shake holders are well aware of IT Act, 2000 and 15.6 per cent of the respondents were aware of Cyber Surakshit Bharat (CSB).

Table – 2
Attentiveness of Cyber Surakshit Bharat (CSB) among the various
Stakeholders in the Rural and Urban Region of Coimbatore

Modes of Awareness level	Total (N)	Per Cent (%)
Advertisements	10	04.0
Apps/Android developed software tools	02	00.8
Awareness Programmes on Cyber crimes/issues	03	01.2
Cyber Law	22	08.8
Friends	28	11.2
Government imitative schemes on IT and cyber crimes	30	12.0
Industrialists/ Corporate sectors	12	04.8
Information Security Officers	11	04.4
IT department/Sectors	05	02.0
Newspapers	11	04.4
Online portals	29	11.6
Private sector employees and employers	35	14.0
Public sector employees and employers	13	05.2
Relatives	12	04.8
Social Media	11	04.4
Television	12	04.8
Training programmes/ Government schemes links	04	01.6
Total	250	100.0

Source: Survey Data, 2018

The different modes of awareness level shows clearly from the above table, that 12 per cent of respondents were came to know about the Cyber Surakshit Bharat (CSB) through Government imitative schemes on IT and cyber crimes, 14 per cent from the private sector employees and employers and only 11.2 per cent are aware with the help of friend circle in the current study.

Table – 3
Gender and Region-wise Attentiveness of Cyber Surakshit Bharat (CSB) in Coimbatore

Gender	Attentiveness of CSB (Region-Wise)		Total
	Rural	Urban	
Male	26 (66.67 %)	115 (54.50 %)	141 (56.40 %)
Female	13 (33.33 %)	96 (45.50 %)	109 (43.60 %)
Total	39 (100 %)	211 (100 %)	250 (100 %)

The highest percent of male from the urban stake holders are well aware of the CSB which accounts to 54.50 percent in urban and overall 56.4 per cents respectively.

Table – 4
Digitalized Business transactions by the stakeholders in their routine life style

Digitalized Business Transactions	Total (N)	Per Cent (%)
UPI – Unified Payment Interface/UPI Apps	05	02.0
AEPS – Aadhaar Enabled Digital Payment mode	19	07.6
USSD Banking – Unstructured Supplementary Service Data	16	06.4
E-Wallets/ Mobile Wallets	07	02.8
Banking Cards/Prepaid Cards/Plastic Money (PM)	29	11.6
Point-of-Sales (PoS)	21	08.4
Internet Banking/ Net Banking (IB)	14	05.6
Bharat Interface for Money (BHIM) Apps	22	08.8
Gift Cards (GC)	10	04.0
Digital Wallets (DW)	06	02.4
India QR Code (IQRC)	05	02.0
V-POS : Virtual E –Payment Gateway	03	01.2
Micro ATM Transaction	25	10.0
Amazon Pay (AP)	08	03.2
Bank IFSC Code	22	08.8
NEFT – National Electronic Fund Transfer	19	07.6
RTGS – Real Time Gross Settlement	19	07.6
Total	250	100.0

Source: Survey Data, 2018

The study reveals that majority of the respondents digitalized business transactions are made with the use of the Plastic Money (both Debit and Credit Cards) or pre-paid cards for their routine activities, which accounts to 11.6 per cent from the above mentioned table, followed by 10 per cent of the stakeholders are using Micro ATM for the purchase or sale of goods and services. 8.8 per cent of the respondents uses digitalized method with the help of bank IFSC code and Bharat Interface for Money (BHIM) Apps.

Table – 5

Digitalized factors, benefits and initiative of Cyber Surakshit Bharat (CSB) for Digitalized Business Transactions

Benefits of CSB	Total (N)	Per Cent (%)
Awareness, education and enablement of Cyber Law and security enforcement challenges (AEECL)	30	12.0
Backup for Lost Data (BLD)	22	08.8
Cyber safety (CS)	15	06.0
Leverage the expertise of the IT industry in cyber security (LCS-IT)	14	05.6
Network Security (NS)	20	08.0
Privileged Protection of Identity (PPI)	29	11.6
Risk Assessment (RA)	26	10.4
Safe protection the data and system (SPDS)	25	10.0
Secure Data Storage(SDS)	26	10.4
Security for Devices(SD)	22	08.8
Strengthen cyber security ecosystem (SCSEs)	21	08.4
Total	250	100

Source: Survey Data, 2018

It is evidenced from the study that 12 per cent of the benefits are through the CSB scheme highly benefits the people by creating awareness, educating and enabling the stakeholders to know the Cyber Law, security enforce procedures and its challenges. 11.6 per cent opined that the CSB benefits in privileged protection of identity of the stakeholders of the both urban and rural region of Coimbatore

Testing of Hypothesis

It is a proposition formulated for empirical testing, is a descriptive statement that describes the relationship between two or more variables. In the current research work, the hypotheses taken are:

- **H₀₁**: Cyber Surakshit Bharat (CSB) initiative programme strongly influence the digitalized business transactions

Table – 6 Reliability and Item Loadings Constructs

Measured Variables	Items	Standardized Loadings	Composite Reliability	Average Variance Extracted
(H _{1a}) - Digitalized Business Transactions (DBT)	AEECL	0.669	0.752	0.744
	BLD	0.752		
	CS	0.711		
	LCS IT	0.725		
	NS	0.811		
	PPI	0.950		
	RA	0.665		
	SPDS	0.646		
	SDS	0.724		
	SD	0.869		
(H _{1b}) – DBTs variables for Cyber Surakshit Bharat 1 factors (CSB1)	ATM	0.195	0.766	0.495
	AP	0.465		
	IFSC	0.196		
	NEFT	0.399		
	RTGS	0.244		
	DW	0.398		
	IQAC	0.423		
	V POS	0.405		
(H _{1c}) – DBTs factors for Cyber Surakshit Bharat 2 (CSB2)	UPI	0.416	0.679	0.342
	AEPS	0.481		
	USSD	0.665		
	PM	0.605		
	PoS	0.673		
	IB	0.332		
	BHIM	0.435		
	GC	0.399		
Overall of Cyber Surakshit Bharat (CSB) initiative programme’s factors for the digitization business transactions (DBT)	CSB on DBT 1	0.648	0.699	0.289
	CSB on DBT2	0.568		
	CSB on DBT 3	0.410		
	CSB on DBT 4	0.689		

Source: Survey Data, 2018

Table – 7: Correlation between the Factors

Measured Variables	(1) DBT	(2) CSB1	(3) CSB2	(4) OCSB
(H _{1a}) - Digitalized Business Transactions (DBT)	1.000			
(H _{1b}) – DBTs variables for Cyber Surakshit Bharat 1 factors (CSB1)	0.085*	1.000		
(H _{1c}) – DBTs factors for Cyber Surakshit Bharat 2 (CSB2)	0.086	0.198*	1.000	
Overall of Cyber Surakshit Bharat (OCSB) initiative programme’s factors for the digitization business transactions (DBT)	0.097*	0.246*	0.187*	1.000

* Significant at 5 % level.

Source: Survey Data, 2018

Table – 8 Measurement of Instruments DBT factors for CSB

Measured Variables	Level of Impacts/Influences				
	1 (SI)	2 (MI)	3 (N)	4 (SII)	5 (NI)
(H_{1a}) - Digitalized Business Transactions (DBT)					
Awareness, education and enablement of Cyber Law and security enforcement challenges (AEECL)	65 (26.0)	52 (20.8)	33 (13.2)	44 (17.6)	56 (22.4)
Backup for Lost Data (BLD)	79 (31.6)	72 (28.8)	25 (10.0)	52 (20.8)	22 (08.8)
Cyber safety (CS)	84 (33.6)	68 (27.2)	48 (19.2)	28 (11.2)	22 (8.8)
Leverage the expertise of the IT industry in cyber security (LCS-IT)	30 (12.0)	39 (15.9)	79 (31.6)	62 (24.8)	40 (16.0)
Network Security (NS)	46 (18.4)	48 (19.2)	39 (15.6)	59 (23.6)	58 (23.2)
Privileged Protection of Identity (PPI)	84 (33.6)	72 (28.8)	54 (21.6)	28 (11.2)	12 (4.8)
Risk Assessment (RA)	86 (34.4)	54 (21.6)	44 (17.6)	24 (9.6)	42 (16.8)
Safe protection the data and system (SPDS)	77 (30.8)	82 (32.8)	68 (27.2)	11 (4.4)	12 (4.8)
Secure Data Storage (SDS)	40 (16.0)	51 (20.4)	35 (14.0)	60 (24.0)	64 (25.6)
Security for Devices (SD)	61 (24.4)	58 (23.2)	40 (16.0)	41 (16.4)	50 (20.0)
(H_{1b}) – DBTs variables for Cyber Surakshit Bharat 1 factors (CSB1)					
UPI – Unified Payment Interface/UPI Apps	82 (32.8)	78 (31.2)	61 (24.4)	10 (4.0)	19 (7.6)
AEPS – Aadhaar Enabled Digital Payment mode	96 (38.4)	80 (32.0)	56 (22.4)	10 (4.0)	08 (3.2)
USSD Banking – Unstructured Supplementary Service Data	24 (9.6)	54 (21.6)	59 (23.6)	45 (18.0)	68 (27.2)
E-Wallets/ Mobile Wallets (EW)	56 (22.4)	58 (23.2)	60 (24.0)	41 (16.4)	35 (14.0)
Banking Cards/Prepaid Cards/Plastic Money (PM)	98 (39.2)	92 (36.8)	15 (6.0)	25 (10.0)	20 (8.0)
Point-of-Sales (PoS)	48 (19.2)	50 (20.0)	59 (23.6)	61 (24.4)	32 (12.8)
Internet Banking/ Net Banking (IB)	111 (44.4)	93 (37.2)	33 (13.2)	08 (3.2)	05 (2.0)
Bharat Interface for Money (BHIM) Apps	45 (18.0)	52 (20.8)	64 (25.6)	58 (23.2)	31 (12.4)
Gift Cards (GC)	39 (15.6)	47 (18.8)	58 (23.2)	48 (19.2)	58 (23.2)
(H_{1c}) – DBTs factors for Cyber Surakshit Bharat 2 (CSB2)					
Micro ATM Transaction	121 (48.4)	83 (33.2)	23 (9.2)	12 (4.8)	11 (4.4)
Amazon Pay (AP)	50 (20.0)	51 (20.4)	51 (20.4)	55 (22.0)	43 (17.2)
Bank IFSC Code	143 (57.2)	96 (38.4)	05 (2.0)	04 (1.6)	02 (0.8)
NEFT – National Electronic Fund Transfer	132 (52.8)	82 (32.8)	11 (4.4)	10 (4.0)	15 (6.0)
RTGS – Real Time Gross Settlement	82 (32.8)	72 (28.8)	70 (28.0)	12 (4.8)	14 (5.6)
Digital Wallets (DW)	45 (18.0)	52 (20.8)	64 (25.6)	58 (23.2)	31 (12.4)
India QR Code (IQRC)	77 (30.8)	82 (32.8)	68 (27.2)	11 (4.4)	12 (4.8)
V-POS : Virtual E –Payment Gateway	40 (16.0)	51 (20.4)	35 (14.0)	60 (24.0)	64 (25.6)

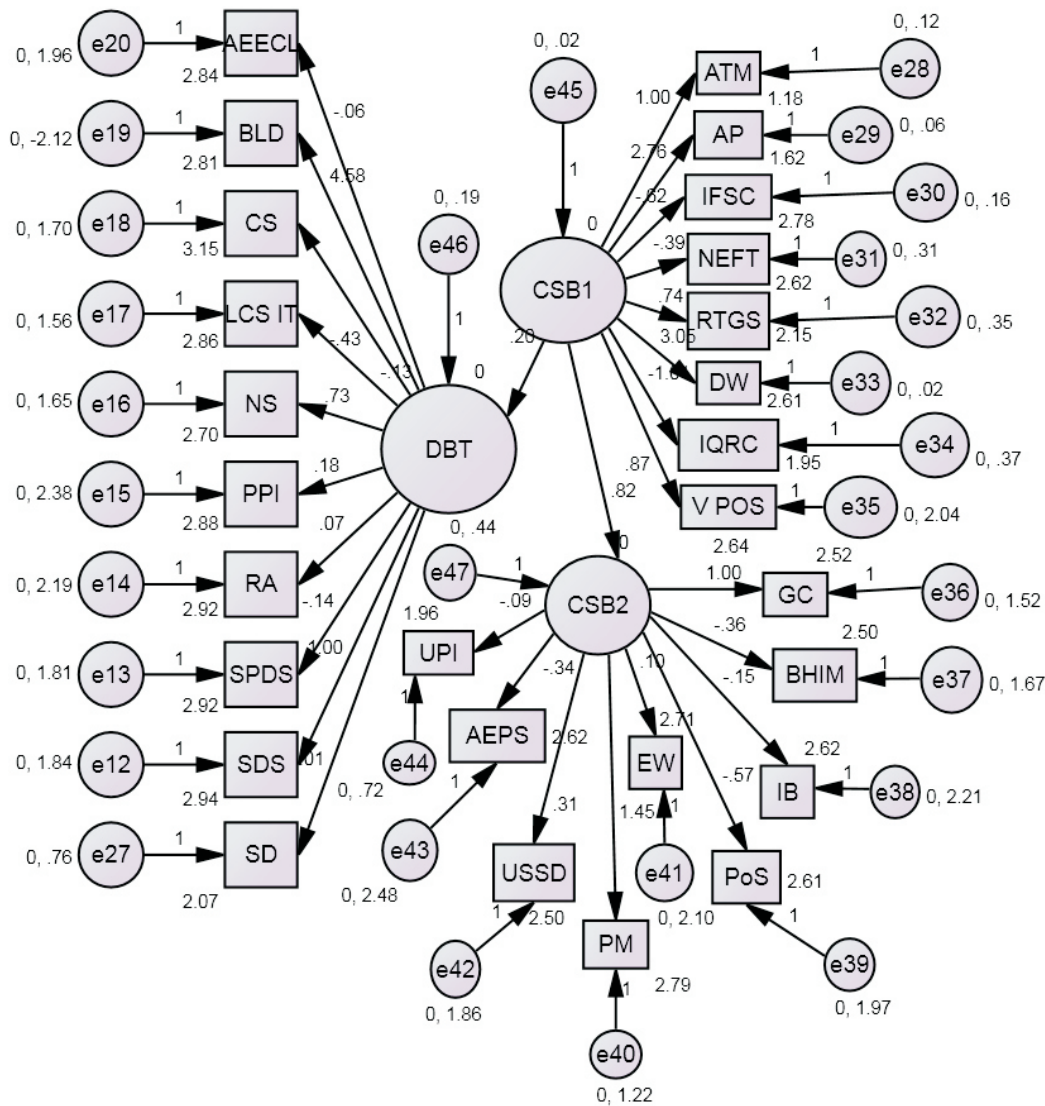
Overall of Cyber Surakshit Bharat (OCSB) initiative programme's factors for the digitization business transactions (DBT)					
CSB on DBT 1: Digitalized Business Transactions (DBT)	84 (33.6)	72 (28.8)	54 (21.6)	28 (11.2)	12 (4.8)
CSB on DBT 2: DBTs variables for Cyber Surakshit Bharat 1 factors (CSB1)	98 (39.2)	92 (36.8)	15 (6.0)	25 (10.0)	20 (8.0)
CSB on DBT 3: DBTs factors for Cyber Surakshit Bharat 2 (CSB2)	82 (32.8)	72 (28.8)	70 (28.0)	12 (4.8)	14 (5.6)
CSB on DBT 4: Overall of Cyber Surakshit Bharat (OCSB) initiative programme's factors for the digitization business transactions (DBT)	96 (38.4)	80 (32.0)	56 (22.4)	10 (4.0)	08 (3.2)

Source: Survey Data, 2018

Note: The numbers mentioned in the parenthesis () represents the percentages.

[(SI) – Strongly Influence (5); (MI) – Moderately Influence (4); (N) – Neutral (3); (SII) – Slightly Influence (2); (NI) – Not at all Influence]

Model – 1: Digitalized Transactions and Cyber Surakshit Bharat (CSB) initiative programme influence and associated with the Stake holders routine activities



Results and Discussion

Table – 9: Summary Results of Measurement Model

Model	X ²	df	P - Value	RMSEA	PGFI/PCFI	NNFI	CFI	RFI	CMIN/DF
H ₀	462.523	249	0.000	0.020	0.788	0.299	0.888	0.179	1.911

Source: Survey data, 2018

The Chi-Square (X²) value of 462.523 with the 249 degree of freedom is at the 0.05 (5%) significant level: its p – value is 0.000. This finding suggests that model fits the data acceptably from selected stakeholders of Universities in Coimbatore district. Corroborating evidence is provided by the RMSEA fit statistics 0.020 the obtained value of 0.008 is less than the cutoff 0.08. Similarly, the Tucker Lewis Index (TLI)/CMIN - DF result of 1.911 is considerably above the 0.95 threshold denoting satisfactory model fit.

In the above Model – 1, Digitalized Transactions and Cyber Surakshit Bharat (CSB) initiative programme influence and associated with the Stake holders routine activities causes the scores observed on the measures variables regarding digitalization and cyber security vigilance programme such as Cyber Surakshit Bharat (CSB), while the stakeholders of both urban and rural region are aware and the association between the digitalized business transactions and CSB initiative measures introduced by the government helped to perform effectively to improve the quality services in protecting the cyber crimes and to ensure believe in using the digitalized system in India. The impact of the digital factors on the various business transactions and key element of CSB schemes are represented by single-headed arrows in the path diagram. Since the chi –square test of absolute model fit is reported, along with its degrees of freedom and probability value.

Properties of the causal paths for the structural model (standardized path coefficients (β), standard error, and hypotheses result) are signified in Table – 10. The square multiple correlations for the structural equations index connotes that the predictors - Digitalized Business Transactions (DBT), DBTs variables for Cyber Surakshit Bharat 1 factors (CSB1), CSB2 have together explained only 14.8% of the variance overall of Cyber Surakshit Bharat (OCSB) initiative programme's factors for the digitization business transactions (DBT) in the selected area has impact.

Table – 10: Summary of Hypotheses Testing Results

Path	Estimate (β)	S.E.	C.R.	p	Results		
(H _{1a}) - Digitalized Business Transactions (DBT)	<---	DBT	2.972	1.783	1.755	0.081	Not Supported
(H _{1b}) – DBTs variables for Cyber Surakshit Bharat 1 factors (CSB1)	<---	CSB1	4.111	2.311	1.823	0.054*	Supported
(H _{1c}) – DBTs factors for Cyber Surakshit Bharat 2 (CSB2)	<---	CSB2	0.796	0.531	1.348	0.173	Supported
Overall of Cyber Surakshit Bharat (OCSB) initiative programme’s factors for the digitization business transactions (DBT)	<---	OCSB	1.348	0.944	1.499	0.153	Supported

*Note: β = standardized beta coefficients; S.E. = standard error; C.R. = critical ratio; *p < 0.05*

Hypothesis 1, 2, 3, and 4 postulate the associations between Cyber Surakshit Bharat factors impact on effective Digitalized Business Transactions (DBT) in the area and four Predictors of CSB usages namely Digitalized Business Transactions (DBT) (comprising ten items), the second factor CSB1 (comprising of nine items) as CSB1 third factor (comprising of eight items) and fourth factor OCSB – DBT (comprising of four items). As evident in Table – 10, CSB – DBT impact is not significantly ($p > 0.05$) influenced by any of the Predictors of DBT factors impact on selected region and on the stakeholders or digitalized business transaction which influence the security and protection system all over the business transaction which had significant impact on stakeholders of Coimbatore constituency at 5% level of significance.

Findings of the study

The major findings of the research study are –

- It is evidenced that, 64 per cent of the respondents belongs to the family size of 4 – 5 in numbers;
- Awareness, education and enablement of Cyber Law and security enforcement challenges (AEECL) is 30 per cent and 11.6 per cent Privileged Protection of Identity (PPI)
- CSB attentiveness is 14 per cent among the stake holders of Coimbatore constituency; and
- In case of marital status , it identified that, 57.2 per cent of the respondents are married and 32 per cent were single;
- In terms of income generation, 62 per cent of the respondents belongs to the income group of Rs.40,000 – Rs. 60,000 and only 7.8 per cent of the respondents belong to the income group of Rs.1,00,000.
- In terms of qualification, it is identify that, 62 per cent of the respondents are degree holders and only 10 per cent of the respondents who are qualified up to PUC
- It is evidenced from the research that about 57 per cent fall under the age group of 30 – 40 years and only 12 per cent fall under the age group of 50 – 60 who are adopted themselves to the digitalized system and involved in the digital business transactions in their day-to-day activities;
- It is evidenced that 49 per cent of the respondents are public sectors employers and employees and 23 per cent of the respondents are homemakers;
- It is identified that, 15.6 per cent of the respondents are aware of CSB and 20.8 per cent of IT Act, 2000;
- It is very revelation to notice that the majority of the respondents are female, which accounts to 96 per cent and the rest of them are male about 141 per cent;
- The association between the digitalized and CSB are very strong and it influences the stakeholders of Coimbatore, it is evidenced that there is about 14.8 per cent correlation between the digitalized factors and cyber security issues.

Conclusion

To summarize, the digitization system strongly impact on the stakeholders in various aspects such as industrial sector, manufacturing, and services sectors especially like Banking and Financial aspects in India. The various digitalized factors benefited the stakeholder's activities to improve the standard business transaction through digitalization in their routine lifestyle. The CBS initiative, currently could be suggested that to improve the strategic foresight and strategic vision is hampering the growth and development of digital system in the Indian business system in various sectors to identify stakeholder's

value, growth, responsiveness or defection more vigorously see the remarkable change in the development and proficiency the activities with the help of digitization with high secure system and protection to involve better in the digitalized system in India.

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