

An Exploratory Study of Different Variables in Context to GST Implementation and Its Impact on Profitability of the Firm: An Empirical Study

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Abstract

In developing countries like India, the taxation system is very crucial role in the development of revenues of the country. But India tax system is difficult to understand and in fact for calculation too in case of both direct tax as well as indirect tax. In order to overcome the problems of the government of India tries to simplify the direct tax as well as indirect tax, the government made the proposal of introducing GST (goods and services tax) instead of all indirect taxes and DTC (direct tax code) instead of direct tax. But fortunately GST won the first place in the purview of implementation. The government of India is committed to replace all the indirect taxes levied on the services and goods by state and central government in the month of April 2017. This paper made an attempt to explain the level of impact of this GST (goods and services tax) on the Profitability and taxation strategies of the organisation from the view point of decision makers.

Key Words: GST, Profitability, Exploratory Factor Analysis, Eign Value

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1. Introduction

After independence, the largest indirect tax reform in India has begun with goods and services tax (GST). After much deliberation, the GST bill was passed at Rajya Sabha and this winter session will be discussed at the state assembly. Having the ball for integrated national tax reforms, the market is full of new expectations among industry leaders and government officials. According to the IBEF, India is a global production plant, and SMEs account for about 90% of its industrial facilities. The Indian government's "Make in India"

campaign will promote the launch of GST. Consumption tax for current pre-packaged retail products is not charged at the factory's transaction price, but at a percentage of the package's maximum selling price (MRP). This increases MRP and increases consumer costs. Under GST, the manufacturer pays taxes while purchasing raw materials for the product. This amount can be credited to the next reseller until the product reaches the end consumer. This will greatly boost the tax burden. This sets the momentum at which two accounts pass. During the winter semester, submit the Central GST (CGST) and Integrated GST (IGST) bills along with the main GST bill through various major assemblies. According to industry and government experts, the GST expiration date of April 1, 2017 is likely to have expired. Corporations, especially SMEs, are collected in a variety of industries. Extended indirect taxes GST replaces a variety of taxes such as excise, VAT and service charges with a single tax structure. With frequent skepticism, some start-ups and small businesses should be aware of the negative impact they can see in photos with the launch of GST. According to various government agencies, the GST system will help most SMEs. As industry experts have stated, it will be most effective to get rid of several central and state tax chain effects and start your business. But market optimism aside is not convinced of how the new detergent will affect your business and change your bottom line. In order to understand all the impacts of tax reform, it is important to grasp the complex aspects of GST and related tax reforms in detail. GST has wide spectrum impact on profitability of the business. There are many factors that affect profitability of the business in context to GST.

2. Literature Review

Govind (2011) The author in the paper has discussed the current indirect tax system in India and its drawbacks, the benefits of the proposed GST to be introduced in India and suggestions to improve the proposed laws. The author states that given the various complexities of the current service tax legislation, the cascading effect of VAT and the blocked input tax costs, it would be very necessary for India to introduce GST at the earliest. The paper also analyzes and discusses the proposed GST in India. Specifically the author has discussed the proposed GST rates, exemptions, the dual system of GST, the issues envisaged therein, suggested solutions for it, the administrative changes required for it, etc.

Tripathi (2011) The authors have discussed the concerns faced in India post the implementation of VAT, the learning we could take from it, the effects on the social order in India. All this is discussed in the background of the impending GST in India. The authors have discussed the various issues around VAT, how it impacts the different sections of society. VAT is present in all goods produced and GST would be present in all goods and services produced making it a tax payable by all sections of the society. Thus, it is a tax which may help to increase the revenue but impacts even the poorer sections of society.

Benedict (2011) The author studies the legal provisions dealing with financial services under the Australian GST law with the intention to verify whether the provisions have been construed correctly in light of the original purpose of the legislation and how the concerns identified may be rectified. The author also examines the provisions followed in Australia to tax financial services provisions and whether the intention of the legislature in taxing the financial services is apposite.

Deol (2012) The author in this paper has discussed the background of GST proposed to be introduced in India. The country has a federal government and indirect taxes contribute greatly to the revenues of the states. It is not possible to introduce GST in India unless there is consensus within the states and centre. The author discusses the advantages, the issues the states have with its implementation, etc in the paper. The author has also stated the 'zero rating model' for interstate sales. Under this model the exporting state dealer does not charge any indirect tax on the sales. However, the importing state dealer declares all his imports and pays tax on them in his state somewhat similar to an international reverse charge system operating currently. Under this system the compliance is simpler and GST remains a destination based tax.

Pinki et al. (2014) The authors in the paper have explored the concept of GST, the need to introduce it in India, the hurdles in introducing it in India and suggestions to overcome the same. The paper also discusses the benefits of introducing GST at the earliest. The authors have discussed the options to introduce the dual GST in India which could be Concurrent Dual GST, National GST or State GST. Under the concurrent dual GST the better option was the one where GST is applied on both goods and services. The other option explored was whether the Central GST would be on goods and services but state GST would be only on goods since state to collect GST in services is difficult to determine.

3. Research Methodology

Research Objectives

- (1) To understand various factors affecting Profitability of firm Due to GST Implementation
- (2) To explore the variables of GST affecting taxation policies
- (3) To evaluate prominence of each factor by running EFA

Research Design

The present study is more of descriptive and causal in nature as in this study an effort is made to understand relationship amongst various determinants, moderators and customer Demand. The causal design is also used in the research as it explains cause and effect relationship between determinants and experience.

Data Sources

Data can be known as information obtained about sample (Frenkel and Wallen, 1993). There are basic two types of data sources i.e. Primary data sources and secondary data sources. The present research used both the data sources.

Primary data is collected directly from respondents with the help of research tool for ease of collection and analysis. Secondary data is collected from various research papers, books, websites articles, published industry journals.

Sampling Plan

Sampling plan explains various dimensions that identify and specify population and samples studied for data collection purpose.

Sampling Procedure

In the present study, convenience-sampling method of non-probability sampling is used to select samples and collect information. Convenience is the most easy and effective method of data collection from the sample units.

Sample Size

This Study has used sample size of 150 decision makers. Which includes, CAs, CFOs, Finance Managers of the companies.

Contact Method

In the present study, mall intercept personal interview was used to collect data. In this method all the data is collected from the respondent outside the retail store immediately after the purchase process over. This method is most beneficial among all the others, as in this method data is collected outside the retail mall.

Research Instrument

With a view to collect desired data to meet research requirement, a structured and self administered questionnaire is developed. Main objective of preparing this data collection tool was to understand Tax Practitioners perception about impact of GST on business strategies. To design most suitable research tool, an intensive literature review was done. The purpose to carry such literature review was to find sales of measurements to be used in questionnaire in the form of questions. Multi item scale is used to measure all the variables of the determinants and moderators. Abstract All the items are measured on a 5-point Likert scale, where 5 stand for “Strongly Agree” and 1 stands for “Strongly Disagree”. Entire questionnaire is divided in to two parts, initial part is about demographics profile of respondents and the later part is about customers’ opinion about various set of determinants.

4. Data Analysis and Interpretation

In multivariate statistics, exploratory factor analysis (EFA) is a statistical method used to uncover the underlying structure of a relatively large set of variables. EFA is a technique within factor analysis whose overarching goal is to identify the underlying relationships between measured variables. It is commonly used by researchers when developing a scale (a scale is a collection of questions used to measure a particular research topic) and serves to identify a set of latent constructs underlying a battery of measured variables. It should be used when the researcher has no a priori hypothesis about factors or patterns of measured

variables. Measured variables are any one of several attributes of people that may be observed and measured.

Method of Factor Analysis

Two of the most common methods for Factor Analysis are generally used: (1) Principal Component Analysis, and (2) Common Factor Analysis. Principal component analysis is a method of analysis which involves finding the linear combination of a set of variables that has maximum variance and removing its effect, repeating this successively. Common Factor analysis is a statistical method used to describe variability among observed, correlated variables in terms of a potentially lower number of unobserved variables called factors.

Differentiating between principal component analysis (PCA) and exploratory factor analysis (EFA), Fabrigar et al. (1999) contended that PCA mainly aims to achieve data reduction. That is, its goal is to find a number of factors that are able to represent the original data and make it easier to express, whilst the main purpose of EFA is to identify latent constructs. In other words, EFA aims to arrive at a parsimonious representation of the associations among measured variables. This distinction is important especially when we know that data reduction does not attempt to model the structure of correlations among the original variables.

With reference to previous brief discussion, we can say that not principal components analysis (PCA) but exploratory factor analysis (EFA), was considered to be the most appropriate technique for this study scales.

KMO and Bartlett's Test of Sphericity

Further, before conducting factor analysis, we must check the appropriateness of using this multivariate analysis technique. This can be done using Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's test of sphericity (Nargundkar, 2003). As recommended by Kaiser, values above 0.7 are good whereas Between 0.5 to 0.7 also acceptable. (cited by Andy Field, 2005). The KMO measures the sampling adequacy which should be greater than 0.5 for a satisfactory factor analysis to proceed. If any pair of variables has a value less than this, consider dropping one of them from the analysis. The off-diagonal elements should all be very small (close to zero) in a good model. Looking at the table below, the

KMO measure is 0.709 hence it is inferred that the sample size is the adequate for the factor analysis.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.709
Bartlett's Test of Sphericity	Approx. Chi-Square	29169.970
	df	406
	Sig.	0.000

Barlett's test of sphericity tests the null hypothesis that the original correlation matrix is an identity matrix. For factor analysis, this is an important starting point since the technique is useful only if the variables are correlated. Therefore, for the test to be significant the p-value should be less than 0.05. In this data, the Bartlett's test shows the p-value as 0.000 for chi-square statistic (29169.970) at 406 degrees of freedom and hence the null hypothesis of correlation matrix being an identity matrix is rejected. Therefore, it is established from the statistical measures that the variables have some correlation and therefore, factor analysis is appropriate.

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	12.992	44.799	44.799	12.992	44.799	44.799	4.869	16.790	16.790
2	3.675	12.674	57.473	3.675	12.674	57.473	4.852	16.732	33.521
3	3.155	10.880	68.354	3.155	10.880	68.354	4.268	14.717	48.239
4	2.771	9.556	77.910	2.771	9.556	77.910	3.955	13.637	61.875
5	1.379	4.755	82.665	1.379	4.755	82.665	3.839	13.239	75.114
6	1.137	3.921	86.587	1.137	3.921	86.587	3.327	11.473	86.587
7	.779	2.686	89.273						
8	.545	1.880	91.153						
9	.503	1.735	92.888						
10	.352	1.213	94.100						

11	.343	1.182	95.283						
12	.263	.909	96.191						
13	.239	.825	97.016						
14	.185	.639	97.656						
15	.159	.547	98.203						
16	.110	.379	98.582						
17	.096	.331	98.913						
18	.079	.272	99.185						
19	.059	.204	99.389						
20	.045	.155	99.544						
21	.040	.139	99.683						
22	.025	.088	99.770						
23	.020	.069	99.839						
24	.014	.049	99.888						
25	.011	.037	99.925						
26	.009	.031	99.955						
27	.006	.022	99.977						
28	.004	.014	99.992						
29	.002	.008	100.00 0						
Extraction Method: Principal Component Analysis.									

The initial solution was determined using PCA method. A method widely used for determining a first set of loadings. This method seeks values of the loadings that bring the estimate of the total communality as close as possible to the total of the observed variances.

Table lists the Eigen values, associated with each linear component (factor) before extraction, after extraction and after rotation. All factors with Eigen values greater than 1 are extracted which leaves us with 29 variables reduced to six factors. Rotation has the effect of optimizing the factor structure and one consequence for these data is that the relative importance of six factors is equalized. First factor explain approximately 44.799 %

of variance and other five factor also explain the significantly high variance. Also, it shows a cumulative percentage of 87% of the total variance explained by the six factors and leaving 13% of the variance to be explained by the other 23 components.

Using Kaiser's criterion, the study sought variables with eigenvalues greater than or equal to 1. The first six components had eigenvalues greater than or equal to 1 and accounted for 87 percent of the variance, with component 1 accounting for 44.799 percent of the variance, component 2 explained 12.674 percent of the variance, component 3 explained 10.880 percent of the variance, component 4 explained 9.556 percent of the variance, component 5 explained 4.755 percent of the variance and last component explained approximately 4 percent of the variance. Therefore based on the total variance explained analysis, a maximum of 6 components could be extracted from the combined data set.

The Kaiser criterion has a weakness as observed by Nunny and Berstein (1994) as its tendency to overstate the number of factors. Stevens (2002) proposes the use of a scree plot in determining the number of components to retain. The scree plot graphs the eigenvalues against the component number and displays a point of inflexion on the curve, which can be used in determination of number of components to extract. In a scree plot, the components before this point indicate the number of factors to retain while the components after the point of inflexion show that each successive factor is accounting for smaller and smaller amounts of variations hence should not be retained.

The rotated component matrix shows the factor loadings of each variable onto each factor. Factor loadings less than 0.4 have not been displayed. As cited by Field (2009), the original logic behind suppressing loadings less than 0.4 is based on Stevens' suggestion that this cut-off point is appropriate for interpretative purposes (i.e. the loadings greater than 0.4 represent substantive values.)

The rotated component matrix helps to determine what the factors represent as the factor loadings denote the correlation (coefficients) between the variable and the factor. The object of the rotation is to ensure that all the variables have high loadings only on one factor. While the researcher has the option of selecting from the two rotation methods: Orthogonal and Oblique; the first method has been selected here so that the rotated factors remain uncorrelated. For this purpose, the rotation method used is 'Varimax'.Larger

loadings on a single factor help to interpret the underlying factor. Finally, the factor analysis procedure gives six factors reduced from 29 variables.

Rotated Component Matrix						
	Component					
	1	2	3	4	5	6
Filing of Indirect tax returns has changed Drastically due to GST	.923					
GST filing process has become smoother than earlier system	.850					
GST filing Process has become safer than earlier system	.835					
It has become very easy to adhere to the compliances due to GST	.820					
Tax Refund system has become faster than earlier system	.915					
Implementation of GST has affected the cost of finished Product		.927				
Implementation of GST has affected the cost of Materials		.784				
Cost of supply chain/ logistics has largely affected due to GST		.931				
Overall there is positive impact of GST on cost of product		.769				
Cost Management has become easier due to GST		.811				
It has become very simple to manage records of inputs from suppliers than earlier						.680
Suppliers of Inputs are positively motivated due to GST system						.623
Benefits of Input tax credit is quite significant in GST system						.778
It is beneficial for suppliers even to manage records of inputs in GST system						.666
Tax payment by suppliers has significantly gone down due to GST system than earlier						.786
It has become very easy to communicate about new tax system to Customers than earlier			.849			
Communication about GST with supplier has become quite simple than earlier system			.763			
Customers can be informed well about new system than earlier			.835			
Benefits to the customer due to new tax system to the			.847			

customer can be communicated easily						
Supplier benefit due to GST can be communicated easily than earlier			.746			
It's become quite easy to fix price of the products and services in GST then earlier system					.803	
Price determination process under GST is simple than earlier system					.678	
Pricing of goods and services have become more transparent under GST than earlier system					.736	
Ambiguity of pricing has reduced under GST than earlier system					.877	
There is significant impact of GST on Profitability of the firm due to GST than earlier system				.857		
It has become quite easy to maintain profitability under GST than earlier system				.857		
Profit Margins have significant effect of GST Implementation				.722		
It has become very easy to design long lasting profitability Strategies under GST than earlier system				.839		
				.716		
Extraction Method: Principal Component Analysis.						
Rotation Method: Varimax with Kaiser Normalization.						
a. Rotation converged in 8 iterations.						

5. Conclusion

Thus the based upon exploratory factor analysis, it is possible to draw insightful inferences for the data collected from the primary survey. Six factors are extracted from the quantitative analysis. Explored relationship marketing factors are Compliance factor, Cost factors, Supplier factor, Communication Factor, Pricing Factor , Profitability Factor and Impact of GST. Further this research confer this explored variable and later on tries to establish structural causal model of GST Impact on Business Strategies.

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