Effect of GST System on Business Performance of Carbonated or Aerated Soft Drinks Industry

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Abstract: **The implementation of the Goods and Services Tax (GST) on July 1, 2017, has significantly transformed the tax framework, thereby establishing a novel trajectory for the Indian economy. The proposed scheme for taxes was initially intended to address the shortcomings of the prior tax system. However, subsequent to its introduction, it has garnered varying evaluations from various stakeholders, including industries, academia, and other relevant parties. The implementation of the One Nation One Tax has resulted in significant alterations that have had a profound influence on various sectors across different industries within the economy. This paper provides a thorough analysis of the effects of GST system on the aerated soft drinks industry. The present study is grounded in a primary survey conducted among a sample of 380 registered carbonated or aerated drinks enterprises. The empirical results derived from the application of Structure Equation Modelling (SEM) shed light on the positive impact of tax knowledge on business effectiveness and the prevention of tax fraud within firms. Furthermore, the progression of technology in the tax structure, coupled with the acquisition of knowledge, has facilitated the establishment of effective tax administration and governance practices by companies, thereby augmenting their overall productivity. The findings have the potential to yield advantageous outcomes for policymakers, governments, and businesses, as a comprehensive understanding of taxation would facilitate prompt adherence to tax regulations and mitigate instances of tax evasion, avoidance, and fraudulent activities.**

Keywords: **carbonated drinks, aerated drinks, GST, tax knowledge, technology advancement, MSMEs, business performance.**

1. Introduction

Taxes play a pivotal role in facilitating and nurturing economic growth and development. Comprehending the intricacies of taxes and adopting an appropriate strategy towards them can significantly impact the outcome of business endeavours, determining whether they thrive or falter (Susyanti & Askandar, 2019). The tax system is tailored to meet the unique requirements of each business, taking into consideration factors such as business activity, size, location, form, and nature. Businesses frequently exhibit a lack of awareness regarding their tax obligations, thereby exerting an influence on their operational and financial determinations. Businesses can strive to minimise this impact by implementing effective tax planning strategies, which can be achieved through a deep understanding of tax laws (Inasius, 2018). Tax knowledge plays a pivotal role in facilitating businesses' compliance with tax rules and regulations. Comprehending the tax obligations associated with the specific nature of their business operations, namely manufacturing and servicing, could potentially exert an impact on their overall business approaches (WTO Report, 2022). Businesses encountered operational challenges due to a lack of comprehensive tax knowledge, resulting in intricate processes and disorganised administrative expenses. Firms exhibiting limited tax awareness frequently find themselves ensnared by bankrupt traders, thereby resulting in illicit refund scam (Wilks et al., 2019).

In order to carry out the current investigation, the researchers have chosen India as the focal point, which is recognised as one of the global developing nations. On July 1, 2017, India underwent a significant reform in its indirect tax framework through the enactment of the GST system. The roll-out of the GST as a technology-driven tax reform has resulted in a notable transformation in the compliance procedures. These procedures are now conducted via web-based platforms, thereby facilitating the digitalization of businesses (LE et al., 2020). The current investigation was undertaken with two principal aims:

O1. To investigate the influence of tax knowledge on performance of aerated soft drinks enterprises.

O2. To investigate the effects of a technological shift in the tax system on performance of aerated soft drinks enterprises.

The primary objective of this study is to examine the impact of tax knowledge and technological advancements on the business performance of carbonated or aerated soft drinks. The examination of the effects on MSMEs, such as carbonated soft drink enterprises, is of utmost importance. These enterprises are prone to exhibit greater reluctance in embracing a novel taxation policy and ensuring its adherence, primarily due to the substantial administrative expenses associated with it. Organisations face significant challenges in adapting to evolving tax laws, fluctuating tax rates, regulatory changes, and technological advancements. These difficulties arise from their constrained benefits of scale, scarce resources, and inadequate knowledge about taxation (Loo et al., 2012). The aforementioned firms exhibit the highest degree of potential for future growth and development, potentially evolving into larger

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entities. Nevertheless, these enterprises have been largely disregarded and inadequately investigated, despite the potential advantages they offer. Hence, the current study investigates the effects on carbonated beverage businesses, which also fall under the category as micro, small, and medium enterprises (MSMEs). The market for carbonated soft drinks in India had total revenues of $18.25 bn in 2022, which represents a CAGR of 19.8% for the years 2017 and 2022. During the period of 2017 to 2022, the market intake volume expanded at a compound annual growth rate of 10.2%, ultimately reaching a total of 9.29 bn litres in 2022. The market's progress is projected to exhibit an accelerated trajectory, with a projected compound annual growth rate (CAGR) of 22% for the five-year timeframe spanning from 2022 to 2027. This anticipated growth is anticipated to propel the market towards a valuation of $49.34 bn by the conclusion of 2027 (Ltd, 2023).

To effectively accomplish the objectives of the research, a path model has been devised utilising the AMOS software. The research findings indicate that the path model emphasised the significance of tax knowledge and advancements in technology in the area of taxation, which ultimately led to improved operational efficiencies for carbonated soft drinks enterprises. The extensive research and findings on enterprises can provide valuable insights for other countries to comprehend the factors that influence the advancement of tax knowledge and technology in their businesses.

The paper is structured into distinct sections, with Section 2 providing a comprehensive review of the available research and presenting the formulated hypothesis. The materials and methodologies employed in this study are outlined in the third section 3. Subsequently, the fourth section presents the statistical characteristics, while the fifth part delves into the empirical findings derived from the study. The subsequent section, the sixth one, provides a comprehensive elaboration of the discussion and conclusion, while Section 7 delves into the practical implications.

2. Review of Literature and Hypothesis Development

The establishment of a robust groundwork for any forthcoming investigation is predicated upon a comprehensive examination of prior scholarly inquiries. The mentioned resource offers a comprehensive research foundation that facilitates the identification of investigation problems, inquiries, and attainable objectives and constructs for the investigation (Bartole, 2012). The existing body of literature provides valuable insights into the topic of tax knowledge and technological developments. By examining the relationship between business and these determinants, the researchers were able to formulate the hypothesis for this research.

A. Tax Knowledge

Tax knowledge encompasses a comprehensive comprehension of the rules and regulations governing the system of taxation, which have been established by the governing body. The identification of three primary components pertaining to tax knowledge encompasses general, procedural, and legal tax knowledge (Bornman & Ramutumbu,

2019). The level of general tax comprehension is indicative of fiscal understanding, while procedural knowledge pertains to the comprehension of complying with tax procedures. Legal knowledge encompasses the comprehension of rules and regulations.

The concept of general tax knowledge entails the inclination to adhere to tax laws, thereby prompting taxpayers to abide by taxation regulations. Neglecting to do so can potentially expose enterprises to precarious circumstances. Tax non-compliance, whether resulting from inadequate tax knowledge or deliberate actions, can potentially result in substantial financial penalties and punishments that adversely impact the financial viability and image of the organisation (Rahmayanti et al., 2020).

Procedural Tax knowledge encompasses the expertise and tools necessary to effectively manage and update tax documentation within specified deadlines. It assists taxpayers in managing the necessary tax documentation and fulfilling their obligations punctually. A thorough understanding of tax laws is crucial in avoiding fear and uncertainty in response to tax changes and the overall tax system. This knowledge is directly linked to improving tax compliance in enterprises (Mohan & Ali, 2018).

Legal tax knowledge encompasses a comprehensive comprehension of legal terminology and the aptitude to precisely apply certain laws and regulations to ascertain one's tax liabilities. Tax expertise allows firms to comprehend the relevant tax rates and regulations based on their characteristics, resulting in operational efficiency (Adams & Webley, 2001).

Accordingly, we hypothesize:

H1. Tax knowledge positively influence carbonated soft drinks enterprises' performance

B. Technological Advancement in the Tax System

The potential impact of technology on the institutional and political landscape is multifaceted. Technology, for scenario, has the potential to significantly impact the field of taxation through the modification of distribution techniques or the reduction of financial transactions. The utilisation of technology has the potential to enhance both the quantity and quality of information accessible to taxing authorities, thereby facilitating their effective utilisation of said information. The potential impact of technology on tax administrations lies in its ability to enhance the efficiency of information dissemination, streamline integration processes, and optimise the deployment of resources. Technological advancements have the potential to mitigate taxpayer compliance expenses through the enhancement of information and services provided to taxpayers. These advancements encompass various tools such as software applications designed for bookkeeping, tax liability calculation, and digital or return-free filing alternatives (Bird & Zolt, 2008).

Accordingly, we hypothesize that:

H2. Advancement in technology for tax system positively influence carbonated soft drinks enterprises' performance.

C. Research Conceptual Model

Following the comprehensive literature review conducted in

the previous section, a conceptual model (Figure 1) was formulated for the purpose of our investigation. The conceptual framework elucidates the interconnections among various factors pertaining to tax knowledge, technological embrace, and their consequential effects on performance.
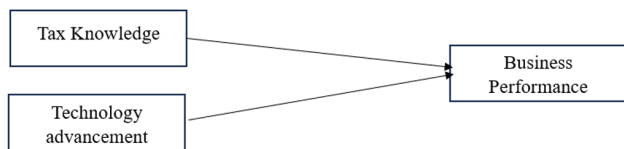

Fig. 1.

3. Materials and Methods Used

The primary aim of this study is to investigate the influence of tax knowledge and technological shift within the tax system on the performance carbonated soft drinks industry. The sampling techniques employed for data collection are elucidated in the initial sub-Section 3.1. The subsequent Section elucidates the data constructs employed and their corresponding measures. The methodology employed for data analysis is subsequently elaborated upon in the third sub-Section.

A. Sample

The segment has expounded upon the data and sample employed in the present investigation. In order to investigate the effects of tax reforms, on the performance of carbonated soft drink businesses in India, primary data was gathered through the utilisation of a structured questionnaire. Furthermore, a pilot study was administered to a sample of 70 participants.

The observed population units, namely carbonated soft drinks enterprises in India, exhibit a notable degree of diversity. Enterprises exhibit clusters distributed across various states, each endowed with distinct advantages. In light of this circumstance, our research has chosen Uttar Pradesh, a state located in India. It is important to note that India is administratively divided into 29 states and 7 union territories. Uttar Pradesh, an Indian state, is a prominent regional entity within the India. Uttar Pradesh, a state in India, boasts the fifth largest economy among all states in the country. Based on prevailing market conditions, it is projected that the gross state domestic product (GSDP) of Uttar Pradesh will amount to ₹24.39 lakh crore (USD310 bn) during the fiscal year 2023-24 (*Economy of Uttar Pradesh*, 2024).

B. Survey Instrument and Data Collection

This part elucidates the data acquired via the self-structured questionnaire.

The questionnaire was distributed and received from a total of 380 units over the course of the collecting period, which spanned from April 2022 to April 2023, employing diverse

approach. The focal variable under investigation pertains to the performance of businesses. The independent variables under investigation encompass the factors of GST, particularly tax knowledge and technological advancement for the tax system, as elucidated in the preceding section.

The study assessed individuals' tax knowledge pertaining to various aspects of the GST, including tax rates, tax rules, tax regulations, threshold limits, general tax knowledge, and legal knowledge (Bornman & Ramutumbu, 2019). The participants were requested to evaluate their responses using a five-point Likert scale, where we represents "strongly disagree" and 5 represents "strongly agree."

The technological dimension of the taxation system's transformation pertains to various aspects, including handling taxes, return filing, record-keeping and documentation tasks (Lesage et al., 2019). The participants were requested to evaluate their responses using a five-point Likert scale, where we represents "strongly disagree" and 5 represents "strongly agree."

Medium and small enterprises frequently exhibit a reluctance to disclose their true financial performance to the public, resulting in suboptimal or non-responsive disclosures. Subjective performance, which refers to the subjective perception of business performance across various facets rather than objective performance, has been extensively documented in previous research endeavours. Moreover, numerous studies have indicated that performance perception exhibits greater validity and reliability compared to actual financial data. The measurement of business performance was conducted by assessing four key statements pertaining to ease of doing business, profitability, customer retention, and operational efficiency (Vij & Bedi, 2016). The participants were requested to evaluate their responses using a five-point Likert scale, where we represents "strongly disagree" and 5 represents "strongly agree."

4. Statistical Properties of Model

Confirmatory factor analysis (CFA) was carried out in order to ascertain whether or not all of the components that emerged, along with the indicators that are connected with them, are converging together. In addition to this, it was essential to make certain that the components were sufficiently distinct from each other. In addition, one of the objectives of doing a CFA was to ensure that the data were consistent with the model and that both the goodness and the badness of the fitness indices were satisfied (McDonald & Ho, 2002). Each and every one of these indices is presented in Table 1, together with the index values that they have achieved and the thresholds that they have proposed.

The current study utilised a Structured Equation Model (SEM) to assess the influence on the performance of the enterprises. This segment presents an analysis of the statistical

Table 1
Acceptable values for fit indices

Model	CMIN/DF	GFI	CFI	TLI	RMSEA
Model	2.573	0.949	0.984	0.980	0.061
Recommended Values	< 3	>0.90	>0.90	>0.90	< 0.08
Source	Hair et al. (2006)	Hair et al. (1998)	Bentler and Bonnet (1980)	Hu and Bentler (1999)	Hair et al. (2006)

Table 2
Cronbach's Alpha, CR, and AVE

Variable Name	VIF	Avg. item loading	CR	AVE
Performance of Aerated or Carbonated Soft Drinks Business		0.931	0.931	0.772
Technology Advancement	2.112	0.916	0.917	0.733
Tax Knowledge	2.112	0.955	0.955	0.841

Source: Compiled by Scholar

Table 3
Correlation matrix and discriminant validity

Variable Name	BPA	TK	TA
Performance of Aerated or Carbonated Soft Drinks Business (BPA)	**0.879**		
Tax Knowledge (TK)	0.759**	**0.917**	
Technology Advancement (TA)	0.729**	0.722**	**0.856**

Source: Compiled by Scholar
**Correlations are significant at 0.01 level (2-tailed). The squared Root of AVE is shown in bold on diagonals

Table 4
Structure model analysis

Hypothesis	Path	Estimate	Critical Ratio	P Value	Empirical Analysis
H1	BPA-TKN	0.357	8.520	0.000	Supported
H2	BPA-TA	0.434	9.340	0.000	Supported

Source: Computed and Compiled by the Researcher

properties of Structural Equation Modelling (SEM), specifically focusing on reliability, discriminant validity, and variance analysis. The present section elucidates the statistical tests and properties of the model, thereby ensuring its internal reliability and validity. The composite reliability and Cronbach alpha values exhibit values surpassing the accepted threshold of 0.70. The values provided for the constructs indicate a high level of internal reliability within the model. The observed VIF values exhibit a value below five, thereby falling within the acceptable range.

The assessment of discriminant validity involved the comparison of square root values of the average variance extracted (AVE). It is suggested that the magnitude of the square root of AVE should surpass the inter-construct correlations. The findings substantiate the notion that the reflective construct demonstrates discriminant validity.

5. Findings

The present study sought to investigate the influence of tax knowledge and technological transition within the tax system on the business performance of aerated soft drinks enterprises.
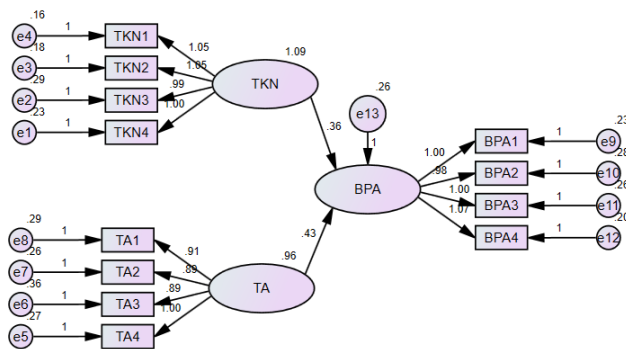

Fig. 2. SEM model examines the impact of GST knowledge and technological advancement in tax system on aerated soft drinks enterprises' performance

The results obtained from the SEM provide compelling

evidence that supports the aforementioned hypothesis (β = 0.357, CR (t value) = 8.520, p <.000). The findings of this study suggest that there is a notable impact of tax knowledge on the operational outcomes of aerated soft drink firms. Hence, the hypothesis positing a positive impact of tax awareness on the business performance of aerated drink enterprises is considered to be supported.

The results obtained from the SEM provide compelling evidence that supports the aforementioned hypothesis (β = 0.150, CR. (t value) = 2.864, p <.01). The findings suggest that the adoption of new technologies has a substantial impact on the operational outcomes of carbonated beverage firms. Hence, the hypothesis positing a positive impact of the technology advancement on the business performance of carbonated drink enterprises is considered to be supported.

6. Discussion and Conclusion

The impact of tax knowledge on the performance of carbonated soft drinks has received limited attention in existing studies, particularly in the following years of the reform of taxation. In this paper, we have examined the effects of tax knowledge and technological structure following the tax reform (GST) on the operational level of Indian carbonated drinks enterprises. The utilisation of Structured Equation Modelling (SEM) is employed in order to construct an extensive structure that enables the assessment of the influence on performance levels. A primary survey was carried out on a sample of 380 enterprises located in the state of Uttar Pradesh, India.

Globally, it has been recognised by tax regulators, authorities, and policymakers that an enhanced understanding of taxation has resulted in improved adherence to tax obligations by taxpayers. The increasing tax compliance of businesses has proven advantageous for both governments and their respective businesses. The current findings underscore the parallel ramifications that subsequent to the implementation of tax reform (GST), a comprehensive understanding of GST models, exemption lists, and relevant tax rates has facilitated seamless business operations. These findings are comparable to

those that were discovered by Blaylock et al. (2011).

The study's additional noteworthy insights pertain to the influence of the technology advancement on taxation. The latest advancements in technology have greatly enhanced the efficiency of GST. The technological advancements in tax reform have primarily centred around the enhancement of tax layout simplicity and the promotion of transparency in tax administration. The implementation of a robust system has proven to be advantageous for carbonated drink enterprises, as it has effectively streamlined the complex paperwork procedures, thereby enhancing operational efficiency. In accordance with the findings of the research conducted by Bhalla et al. (2023), it is said that technology plays a significant role in making the operations of business entities more efficient.

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