
A STAKEHOLDER'S PERSPECTIVE OF REGULATIONS GOVERNING UNIVERSITY AUTONOMY IN INDIA: A QUANTITATIVE ANALYSIS

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ABSTRACT

This socio-legal study investigated India's higher education regulatory structures to ascertain the actual degree of autonomy enjoyed by its universities, specifically focusing on State, Central, Deemed, and Private Universities. Combining doctrinal and empirical research, the study surveyed 432 university officials using a 26-item structured questionnaire. The instrument, measuring organizational, financial, staffing, and academic autonomy, underwent rigorous qualitative and quantitative validation using the Exploratory Factor Analysis and Confirmatory Factor Analysis. Data analysis involved validating the measurement model. Structural Equation Modelling (SEM) was then employed for hypothesis testing, which demonstrated an excellent model fit. All four hypotheses were supported, confirming a direct and positive correlation between overall university autonomy and its organizational, financial, staffing, and academic dimensions. The findings highlight that the current regulatory environment significantly influences the autonomy of Indian universities, necessitating comprehensive reforms across organizational, financial, staffing, and academic dimensions to foster self-reliance, innovation, and global competitiveness in higher education.

1. Introduction

The landscape of higher education globally is increasingly defined by the complex interplay between institutional autonomy and regulatory oversight. In India, a nation with one of the largest and most diverse higher education systems, understanding the extent of university autonomy within its intricate regulatory framework is paramount for fostering academic excellence, innovation, and responsiveness to societal needs. This research undertakes a socio-legal analytical investigation into the existing regulatory structures governing higher education in India, aiming to ascertain the actual degree of autonomy enjoyed by its universities (Yeravdekar & Tiwari, 2014). By addressing this critical area, the study seeks to contribute significantly to ongoing discussions about educational policy and institutional governance (Matei & Iwinska, 2018).

The inherent complexity of India's higher education system necessitates a robust methodological approach. This study strategically adopted a combination of doctrinal and empirical research to provide a comprehensive understanding of the subject. While doctrinal research allowed for a thorough examination of legal and regulatory texts, the empirical component facilitated the collection of real-world perceptions and experiences from key stakeholders, ensuring a well-rounded analysis of the autonomy landscape. The scope of the investigation was meticulously defined, focusing on four distinct types of Indian universities: State, Central, Deemed to be Universities, and Private Universities (Chopra, 2021). This selection ensured a broad representation of the diverse governance models prevalent in the country's higher education sector. Notably, Institutions of National Importance, such as AIIMS, IITs, IIITs, NITs and IIMs, were intentionally excluded from this study, allowing for a more focused analysis on the general university landscape.

2. Theoretical Background

2.1 The Dimensions of University Autonomy

The University autonomy is outlined to be the fundamental basis on which the entire system of the university is hinged and it helps in its pursuit of excellence. The autonomy is one important feature which helps them operate not just independently, but also become successful in their pursuit. It is the autonomy which is essential for the universities to disseminate knowledge, impart training to the students to excel in the challenging environment posed by increased

globalization. The autonomy is also considered vital for providing consultation to industries and serving society as a whole (Edith, 2018). The importance of autonomy of universities have been highlighted in the recent literature (Bergan et al., 2020) and is linked with the democratic principles. It is stated that there is a fundamental linkage between the academic freedom, institutional autonomy and the democracy. The democracy of a nation is further fortified and enhanced if the universities are granted autonomy and the higher educational institutions are the source from which the democratic principles flow to the larger society. A relevant study by Vidal (2013) has identified four critical elements to measure the autonomy of the universities and these were organizational autonomy, financial autonomy, staffing autonomy and autonomy in academic matters. This research therefore hypothesises that for the purpose of measuring the autonomy of the universities is it imperative to determine the autonomy of the four basic elements. i.e. Organizational, Financial, Staffing and Academic autonomy. For assessing these important principles, it is crucial to discuss the relevant literature which can help in better explanation of these four constructs. Hence the proceeding paragraphs discusses each of the identified constructs for an improved understanding and to build their relationship with the academic autonomy and finally build the model for better explanation of their interrelationships.

2.1.1 Organizational Autonomy

Although the term organizational autonomy is an all embracing term which represents the entire gamut of activities undertaken by a university, it normally denotes the control over the operations of the university in general and decision making processes encompassing a wide range of activities. These mostly represent the decision making process of the administrative bodies on strategic issues which have an impact on their functioning in the longer term (Edith, 2018). Authors (Kleizen et al., 2018) have also explained the organizational autonomy as independence in strategic policy making process which determine the vision of the university. It is reflected through an active self-determining role of the universities in setting its own direction of future rather than the passively chartering the directions set by the political establishment. In another study (Woelert et al., 2021) in Australian context, it was found that over the last few decades there has been a rise in both organizational autonomies of the universities as also corresponding increase in the accountability. This developments points towards a very distinctive condition, where the autonomy of the institutions has a corresponding effect on their accountability, which is a fairly balanced development. The

autonomy must also introduce accountability in equal measure, therefore the organizational autonomy is definitely critical as a component of university autonomy. But there is evidence in the current literature (Stamelos et al., 2020) to suggest that government policies have a strong influence on the university policies, hence the reforms have been suggested that could grant the universities the organizational autonomy so that the influencing power of state should be substantially controlled or substantially reduced. Efforts have been made by several governments in the past to grant autonomy to the institutions and reforms in these directions have been suggested in several other studies in the context of India as well as other countries with similar policies and regulatory systems (for eq. Stamelos et al., 2020; Tilak, 2020). Furthermore, in context of Greece, where the economy is not in its best shape, the markets and the society are disconnected to a larger extent and the state is exercising a tight control over the university and the autonomy is largely subdued due to the influence of state and its bureaucrats (Stamelos et al., 2020).

The next question that arises is the measures which indicate the organizational autonomy in general. The study by Rahimi & Kohpeyma (2020), explained the antecedents of the organizational autonomy and identified it as the intellectual capital, managerial capacity and facilitators of excellence. All these antecedents have a significant influence on the organizational autonomy. But, Since the study (Rahimi & Kohpeyma, 2020) is in the context of Iran, and the Indian state has little resemblance with this Arab nation, it will not be applicable to the Indian context for a variety of reasons and democracy being the primary difference. In India the control of various bodies that function as sub-sets of the organizational structure. In respect of the forgone discussion and looking at the structure of the Indian universities we can identify three major sub-set in the organization of universities. These three subsets are governing councils, academic boards and student's councils. These three organizational bodies form the skeletal structure on which the university as an organization rests. Therefore, it can be proposed that these three bodies must exercise autonomy for the purpose of achieving organizational autonomy and which can finally lead to the autonomy of the universities in India. It is therefore hypothesized as under:

H1: The Organizational Autonomy has a significant influence on the autonomy of Indian Universities.

2.1.2 Financial Autonomy

The ability of the universities to decide upon allocation of its funds and determination of its budgets is termed as the financial autonomy in the context of a university (Edith, 2018). The state and central universities across most countries and India are funded by the government as well as there a provision for providing grants through University Grants Commission (UGC) for some state and central universities. The funds and grants received by the universities are subventions and are substantially controlled by the respective government through the ministries or especially formed bodies such as Directorate of Education. The Universities also earn income in the form of fees collected from the affiliated institutions for conducting the examinations of the students enrolled in these affiliated institutions. The issue of financial autonomy to the universities is a multi-faceted one which concerns the extent of freedom and the levels of regulation for accountability. An absolute financial autonomy may lead to misuse of powers, which is more detrimental to the progress of the universities. A balancing of the regulation may not be possible as a little tilt towards either end may defeat the purpose. Yet, this elusive and insurmountable balance has to be accomplished through involvement of all stakeholders including the government in a process of dialogue. It is important that the state proactively pursues this process and effectively devise a framework of financial autonomy in a time bound manner. While devising such a framework, it is imperative that the independence of the universities be granted primacy as this independence is the essence of autonomy of the universities (Kohtamäki & Lyytinen, 2004). The next important question that arises in the matter of funding of the universities is with respect to the public funding of the universities. The state funding has been the core function of the overarching body amongst all regulatory institutions i.e. the University Grants Commission (Banker & Bhal, 2020). The grants provided by the government has a major role in developing the Universities into centres of quality research and learning, in absence of this funding the universities cannot sustain on their own. An estimated 45% of the universities in India receive funds from the UGC, the remaining have to sustain on their own resources mainly generated out of tuition fees (Momaya et al., 2017), although there are other sources of funding such as sponsorships, consultation fees and endowments which can be acquired by the universities yet, such sources do not yield any substantial corpus for a majority of the institutions. This increases the dependence of the universities on the funding from the state and the resulting control of the authorities. Another significant dimension of financial autonomy of a university has been associated with its ability to raise funds from the financial institutions. This financial institutions providing funds to the

institutions expect that the university must have full freedom of operation and must be able to have all control over its financial management. However, since the universities do not have full financial autonomy, these loans cannot be raised and cannot afford the financial liabilities necessary for their long-term survival (Privot & Estermann, 2017). The move toward financial autonomy for public universities will result in a significant change in their financial accounting and reporting system. In order to create a financial reporting system that regulates the use of funds and compliance with prudent financial practices, the autonomous university must use the international accounting standards (Irvine & Ryan, 2019). An important finding was presented in a research by Logli (2016) in the context of Indonesia. This study states that with the exception of a few changes aimed at financial independence, the higher education system remains mostly centralised. Lack of public money makes it difficult to offer proper facilities, instruction, and research, among other things. An overrepresentation of students from metropolitan areas and upper social classes is caused by the ensuing increase in tuition fee. This may not be the case of the Indian universities yet, but as we see the decline of public funding of the universities in India, we will see that instead of autonomy, the welfare approach of the universities will need to be replaced with the commercial inclination as the universities will find out more and more difficult to fund its activities. Based on this argument we can hypothesise as under:

H2: The Financial Autonomy has a significant influence on the autonomy of Indian Universities.

2.1.3 Staffing Autonomy

The freedom of universities to execute their human resources related decisions is termed as the Staffing Autonomy (Edith, 2018). These decisions primarily involve the appointments, removal of staff, salaries and promotions related activities. For ensuring balanced growth of an institution it is imperative that the universities must exercise freedom on appointment without external directives and interventions. The external influences in the appointments of staff is not new to the university system and the representation of the government in the appointments committee has been one of the prominent feature of all government funded institutions. It is also an open secret that the staffing decisions have been politically influenced by the establishment, specifically the appointments to leadership positions, such as the Vice-Chancellors of the universities (Roberts Lyer et al., 2022). Universities have a persistent need

for staffing autonomy in order to become more independent in both hiring and managing the workload for both teaching and research. It is argued that professionalization i.e. unbiased and objective judgement of person recruited to the universities is the only way to ensure competent people run the affairs of the institution. Political influence and approval of the government in the appointment of the staff is the greatest hindrance in the process of professionalization of the universities (Michavila & Martinez, 2018). The staffing autonomy of the universities has been equated as the direct measure of its autonomy in the past studies (Curaj et al., 2018). These findings offer a fine reflection of how autonomy has a strong linkage with the staffing autonomy of the university. In India the staffing autonomy is influenced in a variety of ways including influencing the staff selection process, indirect influence on determination of the salaries of staff and control over the process of appointment by granting the approval to the positions to be advertised for the purpose of recruitment. The approval of the government is essential for the issue of advertisements as the salaries of the staff is paid through grants received from the governments. This again grants a huge control in the hands of the political establishment to control the staffing autonomy of the universities. Although the private universities enjoy the power to appoint and dismiss staff, yet the staffing decisions, such the Cadre ratio, Student - teacher ratio, minimum qualification, years of experience are all determined by the various regulations and the bodies that govern the university. The New Education Policy 2020 (NEP-2020) envisages to grant the much need autonomy to institutions, including public universities to determine their staffing needs and the autonomy to recruit staff. This is a positive development in the context of staffing autonomy and indicates that the autonomy of the universities shall remain a partial until staffing related autonomy is granted to the universities. Based on the above discussion, it can be proposed that:

H3: The Staffing Autonomy has a significant influence on the autonomy of Indian Universities.

2.1.4 Academic Autonomy

Academic autonomy refers to a university's capacity to make decisions regarding a range of academic matters, including study program initiation, learning resources, quality management, and student enrolment (Anand & Niaz, 2022). Autonomy assures that academics can practise their field, free fear of physical, mental, or mental distress by keeping them morally and intellectually independent of political authority and economic power (Raina, 2019). One compelling and interesting argument in the context of academic autonomy of universities is

that the boundaries of autonomy at Indian universities are not well-defined. The proponents of privatisation perceive the academic autonomy as the independence from governmental oversight on the functioning of the university (Tierney & Sabharwal, 2016). Fundamental elements of institutional autonomy include the power to determine admission standards and determine on the total number of students admitted to the university. The number of seats and the approval of colleges has a significant impact on universities, since they are constantly under political influence to grant intake capacities to the institutions. Moreover, the University Grants Commission constantly monitors universities when it comes to the introduction of degree programmes and instructive content, which they claim is for conformance to quality standards (Sundar, 2016).

An interesting aspect about the academic autonomy has emerged in a recent study (Shafeie & Sharifi, 2020). This study explains that there are three distinctive aspects to the academic autonomy – monetary, scientific and administrative autonomy. Of these three dimensions, the scientific autonomy has the most significant contribution to the academic autonomy of a university. This effectively means that the universities must be provided with substantial freedom to determine their curriculum and lesser influence by the regulatory bodies for determining the courses taught and the designing of curriculum can lead to greater autonomy. An interesting aspect of the academic autonomy was studied in Ethiopia (Aboye, 2021). This study attempted to explain the influence of ruling political party, which follow a particular ideology, on the academic autonomy. The study found that the political ideologies of the three different governments, which included imperial, socialist and democratic systems, had a negative influence on the academic autonomy of the universities. In the context of post-independence India, where successive democratic governments have administered the country, political influence in various forms have been quite evident (Jayal, 2021). The association of academics with the government in power was not without reason, as those who give-up the autonomy gets benefitted in the form of appointment and tenure at the universities. These individuals were in some way driving the political agenda of the establishment and as a result adversely impacted the academic autonomy of the universities (Jayal, 2021). This was the case with the Vice Chancellors of the publicly funded institutions, even in the case of private universities which are established by the special statutes of the state government, which enjoyed other forms of freedoms, their academic autonomy was also compromised due to the regulatory system of the state and central governments (Angom, 2021). The above arguments are evidently pointing towards the significance of the academic autonomy as a com[onenet of

University autonomy and also the influence of the present regulator environment on the academic autonomy of the universities in India. We therefore follow the corresponding hypothesis as under:

H4: The Academic Autonomy has a significant influence on the autonomy of Indian Universities.

3. Methodological Approach of the study

To gather empirical evidence, the research employed a specifically designed structured questionnaire, drawing data from a wide spectrum of major stakeholders within Indian higher education. The survey instrument, comprising six sections and 26 items, was fundamentally based on measures adopted from the study by Pruvot & Estermann (2017). This robust foundation ensured that the questionnaire was aligned with established frameworks for assessing university autonomy. The items were meticulously crafted to measure four critical dimensions of university autonomy: organizational, financial, staffing, and academic autonomy. These dimensions are widely recognized as fundamental pillars of institutional self-governance, providing a holistic view of the autonomy enjoyed by universities (Trivedi, 2024).

The development of the survey instrument underwent a rigorous validation process to ensure its reliability and validity. Initially, a qualitative assessment was conducted, involving five senior academics deeply involved in university administration. This crucial first stage helped confirm the face and content validity of the questionnaire, ensuring that the questions were clear, relevant, and effectively captured the intended concepts (Mason et al., 2020). Following this, a quantitative validation process was implemented, utilizing exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) procedures to scientifically validate the scale items (Yong & Pearce, 2013) (Hox, 2021). EFA helped in understanding underlying latent variables and relationships, while CFA, a key component of structural equation modeling, allowed for the examination of causal relationships between latent and measured factors within theory-derived models. The internal consistency of the instrument was conclusively proven, as all Cronbach alpha values exceeded the critical threshold of 0.7, affirming the suitability of the scale for the survey (Woodliff et al., 1999) (Taber, 2018).

Data collection involved a strategic approach, beginning with two rounds of consultations with senior university officials. These consultations were vital for identifying suitable participants

who possessed a deep understanding of university processes, ensuring the collection of accurate and relevant data. The identified participants included high-ranking university officials such as Vice-Chancellors, Deans, Registrars, Pro-Vice-Chancellors, Directors, Deputy Registrars, Assistant Registrars, and Officers on Special Duty. The questionnaire was converted into an online survey form using Google Forms, and contact details of prospective respondents from State, Deemed, Central, and Private Universities were obtained from the UGC website. Despite sending three rounds of emails and making follow-up phone calls, a substantial total of 432 valid responses were collected from the 522 initial replies, demonstrating a robust response rate. The online mode of data collection also inherently ensured the anonymity and privacy of the collected data.

The collected data underwent a series of comprehensive analyses. An elementary analysis for missing values confirmed their absence. Common method bias, a potential threat to result authenticity, was meticulously assessed using a single component CFA model. The findings indicated no common bias-related issues, as the obtained value was lower than that derived from the common latent factor technique (Podsakoff et al., 2024). The measurement model demonstrated a good fit, with acceptable scores for chi-square/degrees of freedom (1.611), RMSEA (0.036), TLI (0.983), and CFI (0.968), affirming the reliability and validity of the survey instrument. Confirmatory Factor Analysis (CFA) further verified overall consistency, with factor loadings consistently above 0.40, and sufficient convergent validity was established with loadings and Average Variance Extracted (AVE) values greater than 0.50. Discriminant validity was also confirmed, ensuring that constructs were distinct from each other. Finally, Structural Equation Modeling (SEM) was employed to examine the complex relationships among latent constructs, proving highly suitable for the study due to its ability to explain intricate models and analyze relationships between latent constructs. The structural model provided an excellent fit (χ^2/df 1.622; CFI 0.978; TLI 0.976; RMSEA 0.036), allowing for a robust testing of hypotheses. This rigorous methodological approach underpins the study's conclusions, which confirm the direct and positive correlation between overall university autonomy and its organizational, financial, staffing and academic dimensions, providing crucial insights into the regulatory landscape of Indian higher education.

3.1 Survey instrument

A structured questionnaire comprising 6 sections and 26 items was prepared after the survey

of literature. The items scale was predominantly based on the measures which were adopted from the study by Pruvot & Estermann (2017). The items comprised of four sections which aimed at measuring the four identified dimensions of the university autonomy namely organizational, financial, staffing and academic autonomy. The survey instrument was initially assessed for its content by using five senior academics who are involved in the administration of the university. As outlined by Souza et al., the process of validation of the questionnaire was followed (Souza et al., 2017).

The first stage, thus, used the qualitative validation of the survey instrument followed by the quantitative process of validation. The method of quantitative validation employed are the exploratory and confirmatory factor analysis procedures to validate the scale items. The studies have indicated that the preliminary validation are important despite the quantitative test conducted later (Worthington & Whittaker, 2006).

The quantitative validity of a survey instrument is often based on factor-analytic approaches, which provide more rigor and scientific examination, yet the inaccuracies made in the early stages of scale development result in issues in the later stages. The face validity and the content validity of the questionnaire was examined by following the procedures suggested by (Elangovan & Sundaravel, 2021).

It is necessary to determine whether a measure and the aspects that it covers, are enough and suitable for expressing a concept. A measure that has face validity will have a clear relationship with the notion it is meant to measure and less of a relationship with the other variables. Face validity is a simple and an excellent way to determine whether a metric is acceptable for capturing a concept, yet it is insufficient. It must be understood in conjunction with other measures of assessing the validity. Similarly, Content validity emphasizes on how well a metric represents all aspects of a specific concept. A test with high validation captures the entire meaning of the concept it is meant to evaluate. The questionnaire was thus tested for the face and content validity. The Cronbach alpha values for all the constructs was found to be above the critical value of 0.7, (see table 2 for details) and hence the scale was found suitable for conducting the survey.

3.2 Sample Survey

For the purpose of collection, the study involved two rounds consultations with the senior

officials of the universities. The experts were consulted for the extent of information that the senior members of the university including tenured officials or the senior administration staff of the universities. The idea helped in understanding the familiarity of the officials with the processes of the universities. This further helped in curating a list of person who can be asked to participate in the survey, so that correct and relevant data can be collected from the respondents. The deliberations identified eight different individuals who were decided to be the participants of the survey namely Vice-Chancellor, Dean, Registrar, Pro- Vice-Chancellor, Director, Deputy Registrar, Assistant Registrar and Officer on Special Duty. The questionnaire was converted into an online survey form using the google web-based form for the purpose of collecting the data. Since the university data base was available on the UGC website, the targeted universities including State, Deemed, Central, and Private Universities list was obtained for the purpose of conducting the detailed online surveys. The database for collecting contact details, such as email ids and contact numbers was prepared for sending the links to the web-based survey form to the identified population for the survey. The survey forms were emailed to the prospective respondents and later were contacted over the phone for obtaining the response. The participants were send three rounds of emails for collection of data and finally 522 respondents replied to the responses through the web-based link. 432 valid responses were identified based on the completed responses and removal of outliers from the data set. The process of collecting data in online mode has several advantages as it takes care of the anonymity and the privacy of the collected data (Opara et al., 2023). This dataset was then used to perform the analysis. The data pertaining to the demographic profile of the respondents is presented in table 1.

Table 1: Respondents' demographic information

Demographics Variable	Category	Frequency	Percentage
Age	Less than 35 years	47	11
	35 - 45 years	102	24
	45 - 55 years	119	27
	55-65 years	80	19

	65 years & above	84	19
Gender	Male	357	83
	Female	75	17
University Type	State University	202	47
	Deemed to be University	70	16
	Central University	13	3
	Private University	147	34
Designation	Vice-Chancellor	29	7
	Dean	72	17
	Registrar	82	19
	Pro- Vice-Chancellor	34	8
	Director	58	13
	Deputy Registrar	81	18
	Assistant Registrar	56	13
	Officer on Special Duty	20	5

3.3 Analysis of the Data

3.3.1 Factor Analysis

A set of measurable variables are subjected to factor analysis to investigate their inherent correlations and structure. It is normally employed in disciplines like psychology and sociology

that routinely examine latent constructs (T. A. Brown, 2015).¹ Typically, exploratory factor analysis (EFA) or confirmatory factor analysis (CFA) are the factor analyses itself Observed (measured) variables can be connected to unlimited number of latent factors using EFA, however CFA has limitations on which variables can be loaded onto which factors. While EFA seeks to find this structure via data-driven analysis, CFA implies a priori knowledge of the theoretical base (J. D. Brown, 2001).²

3.3.2 Exploratory Factor Analysis

In order to study possible underlying latent variables through measurable variables, EFA is a valuable technique for describing the shared variability across measured variables. It helps with data reduction and reveals previously undiscovered patterns of relationships. If one has tried a number of different hypothesised CFA model but none of them fit well, EFA is very helpful and convenient. The model's great degree of flexibility enables it to offer insights that can help researchers take more accurate measurements of the hypothesized model, which in turn could affect the conclusions drawn from the analysis (Luo et al., 2019). EFA is used to investigate the relationships between latent variable that are correlative as well as to model these relationships using one or more latent variables. A causal relationship among latent variable(s) and explicit indicators is assumed in the common factor model (common cause relation), which is an assumption that is thoroughly examined in the literature (Borsboom et al., 2003).

EFA is a statistically unique approach that provides answers to a wide range of research questions. A multivariate method called exploratory factor analysis provides answers to queries about the potential for a small number of latent variables to explain a large number of discrete variables (Schreiber, 2021). Often, exploratory factor analysis is used in research to explain whether the variables selected have a significant impact on the outcome (Goretzko et al., 2021). EFA is a data reduction method that preserves quite so much information as it can while reducing data to a more reasonable size. In order to identify a smaller collection of components, this multivariate method is employed to examine the underlying structure of associations or correlations between a big range of variables (Field, 2013).³

¹ Timothy Brown, CONFIRMATORY FACTOR ANALYSIS FOR APPLIED RESEARCH, 3rd ed. 2015, pp. 136-201.

² James Dean Brown, USING SURVEYS IN LANGUAGE PROGRAMS, 1st ed. 2001, pp. 112-179.

³ Andy Field, DISCOVERING STATISTICS USING IBM SPSS STATISTICS, 4th ed. 2013, pp. 546-723.

3.3.3 Confirmatory Factor Analysis

In several fields of the social and behavioural sciences, confirmatory factor analysis (CFA) has positioned itself as a significant analytical method. It is a part of a group of techniques for structural equation modelling that enable the examination of causal relationships between latent and measured factors together in typically specified, theory-derived models. The primary benefit of CFA is its capacity to help researchers close the frequently noted divide among theory and observation. The best way to understand CFA is as a process, starting with model conceptualization and moving on to model identification, parameter estimation, data-model fit evaluation, and prospective model modification (Mueller & Hancock, 2001). CFA provides a measuring approach using structural equation modelling. Although it shares certain similarities with EFA, it does not share all of EFA's limitations for bias study. Instead of using the correlation matrix, it uses the means and variance-covariance matrix. As a result, it can identify bias that is both uniform and non-uniform. When there are a variety of variables measuring more than one dimension, CFA is frequently used, as much as EFA (Fontaine, 2005).

Testing the model's fit to the data is a part of CFA. To prove the disconfirmability of the model, it is necessary to examine other competing hypotheses. Context-specific models that are disconfirming and/or reasonable for CFA analyses include those that are theoretically or empirically examined (Alhija, 2010). The covariance matrix of the latent factors in a CFA model can be used to evaluate correlations among them, although latent variables never are regressed on the other variables (Song & Lee, 2012). Confirmatory factor analysis is a similarly significant but less frequently employed method. The researcher in this case pre-specifies the nature of the latent variables by identifying the visible variables that they think would be explained by specific latent factors. The next step is for the researcher to determine whether the pre-specified parameters are sufficient to account for the item-item correlations. To find the set of factors that best explains the inter-correlations of the items with the fewest number of parameters, a researcher could also examine several sets of pre-specified factors. This method is most frequently employed when researchers want to evaluate the variables of two distinct populations or groups or when they already have strong notions about the nature of the factors based on past investigations using exploratory factor analysis (Weiss & Adams, 2010).⁴ This

⁴ Alexander Weiss & Mark Adams, PERSONALITY, TEMPERAMENT, AND BEHAVIORAL SYNDROMES, 3rd ed. 2010, pp. 47–53.

study uses CFA to explain the latent variables.

Table 2: Items, Sources, Factor Loadings, and Constructs

Constructs	Item No.	Items	Sources	EFA	CFA	SEM	Cronbach's Alpha
Organizational Autonomy (OGA)	OGA1	Membership of the governing councils of institutions	(Pruvot & Esterman, 2017)	0.789	0.839	0.841	0.928
	OGA2	Control of governing councils		0.809	0.786	0.831	
	OGA3	Membership of academic boards		0.817	0.823	0.817	
	OGA4	Control of academic boards		0.809	0.851	0.791	
	OGA5	Control of student associations		0.819	0.871	0.845	
Financial Autonomy (FIA)	FIA1	Financial audit	(Pruvot & Esterman, 2017)	0.824	0.878	0.891	0.914
	FIA2	University budget		0.876	0.913	0.924	
	FIA3	Approval of commercial ventures		0.853	0.908	0.918	
	FIA4	Approval of major capital expenditure		0.827	0.863	0.893	
	FIA5	Level of tuition fees		0.815	0.902	0.931	
	FIA6	Financial aid to students		0.854	0.903	0.904	
Staffing Autonomy (STA)	STA1	Appointment of Vice Chancellor	(Pruvot & Esterman, 2017)	0.814	0.873	0.852	0.894
	STA2	Dismissal of Vice Chancellor		0.798	0.854	0.824	
	STA3	Appointment of Professors		0.856	0.883	0.887	
	STA4	Dismissal of Professors		0.761	0.837	0.884	
	STA5	Appointment of other Academic staff		0.858	0.897	0.885	

	STA6	Termination or discipline of Academic staff		0.771	0.854	0.847	
	STA7	Academic tenure		0.845	0.848	0.874	
	STA8	Appointment or dismissal general staff		0.781	0.835	0.837	
	STA9	Academic pay and conditions		0.879	0.864	0.865	
Academic Autonomy (ACA)	ACA1	Language of instruction	(Pruvot & Esterman n, 2017)	0.811	0.914	0.924	0.924
	ACA2	Introduction or termination of new teaching fields of study		0.725	0.739	0.724	
	ACA3	Selection of text books for curriculum		0.711	0.812	0.825	
	ACA4	Research priorities		0.734	0.741	0.743	
	ACA5	Approval of publications		0.798	0.812	0.824	
University Autonomy (UNA)	UNA1	Excessive and Extreme		0.861	0.899	0.873	0.916
	UNA2	Somewhat excessive		0.852	0.912	0.908	
	UNA3	Slightly Excessive		0.853	0.912	0.923	
	UNA4	Reasonable		0.817	0.878	0.854	
	UNA5	No influence		0.853	0.921	0.923	

3.3.4 Common method bias test

In many different fields of study, common method bias is considered to be a threat to the authenticity of the results (Burton-Jones, 2009). If both the dependent and independent variables are acquired using a similar technique of response, there is a risk of common method bias. Although it can harm the study's validity, common method bias's effects are frequently disregarded. To avoid this issue, it is considered to be very important to identify the causes of the common method bias. Also, once the causes and the reasons have been identified, it is essential to determine the methods to manage it (Kock et al., 2021).

An elementary analysis to check the missing values in the data was done with the help of the frequency tests. Thus, it was determined that there were no missing values in the data.

According to the findings, a single component CFA model could not account for more over 50% of the total variance of the dependent variable. It may be concluded that there are no common bias-related issues because the value obtained by using confirmatory factor analysis marking variable technique was lower than that obtained using the common latent factor technique (Podsakoff et al., 2003).

3.3.5 Measurement model

The examining of the survey instrument's reliability and the validity was supported by the measurement model. The measurement model gave a fit score of 1.611, which is a good score, with chi-square (χ^2) ratio degrees of freedom (χ^2/df), root mean square error of approximations (RMSEA) of 0.036, Tucker-Lewis index (TLI) of 0.983, and comparative fit index (CFI) of 0.968 (Hu & Bentler, 1999).

The confirmatory factor analysis was employed to verify overall consistency, including both terms of internal and external consistency. Also, to check the internal consistency between the items within each construct, composite reliability was computed. The reliability of item was proved as the values of the factor loading were above the suggested cut-off values of 0.40 (Hair et al., 2010).⁵

Since the items in the questionnaire were modified from relevant existing literature to correspond to the context of the current investigation, the presence of sufficient validation in the study was measured was established. The loadings and average variance extracted (AVE) for the study measures were greater than 0.50, retaining sufficient convergent validity (Anderson & Gerbing, 1988). Additionally, all of the measures' composite reliability (CR) was higher than 0.70 (Fornell & Larcker, 1981). Thus, it may be determined that the study instrument has a suitable level of internal dependability. The correlation coefficients between the constructs were larger than the square roots of all the AVEs, indicating discriminant validity.

⁵ Joseph Hair et al., MULTIVARIATE DATA ANALYSIS, 7th ed. 2010, pp. 231-242.

Table 3: Analysis of Validity and Reliability

	CR	AVE	MSV	MaxR(H)	OGA	FIA	STA	ACA	UNA
OGA	0.943	0.832	0.241	0.961	0.921				
FIC	0.915	0.724	0.221	0.927	0.349	0.851			
STA	0.879	0.647	0.238	0.899	0.381	0.487	0.812		
ACA	0.929	0.754	0.246	0.932	0.489	0.332	0.461	0.863	
UNA	0.923	0.745	0.235	0.934	0.498	0.312	0.451	0.454	0.863

3.3.6 Structural Equation Modelling

Structural Equation Modelling (SEM) is frequently used to visualise and validate models to independently explain many statistical correlations. This method makes it easy to explain complex models. It is a development of conventional linear modelling methods like multiple regression analysis and analysis of variance (ANOVA), which are necessary for understanding SEM. It can be summed up as combining factor analysis and multiple regression analyses at once (Jr. et al., 2017). Understanding the link among latent constructs that are frequently reflected by different measurements is the goal of SEM. It is also referred to as covariance structure analysis and latent variable analysis. It uses a confirmatory strategy as opposed to an exploratory one. Latent factors, often known as constructs, are factors that dependencies explain. It offers a solitary sophisticated model that takes into account numerous dependencies and interdependencies between the components. It is distinct from traditional multivariate procedures in that it examines multiple models to see which one best represents the relationship between the latent variables, as opposed to the classic multivariate techniques which only handle specific objectives. Large samples are typically involved (Hayes et al., 2017). The SEM is thus found suitable to be employed for the purpose of this study.

3.3.7 Structural model

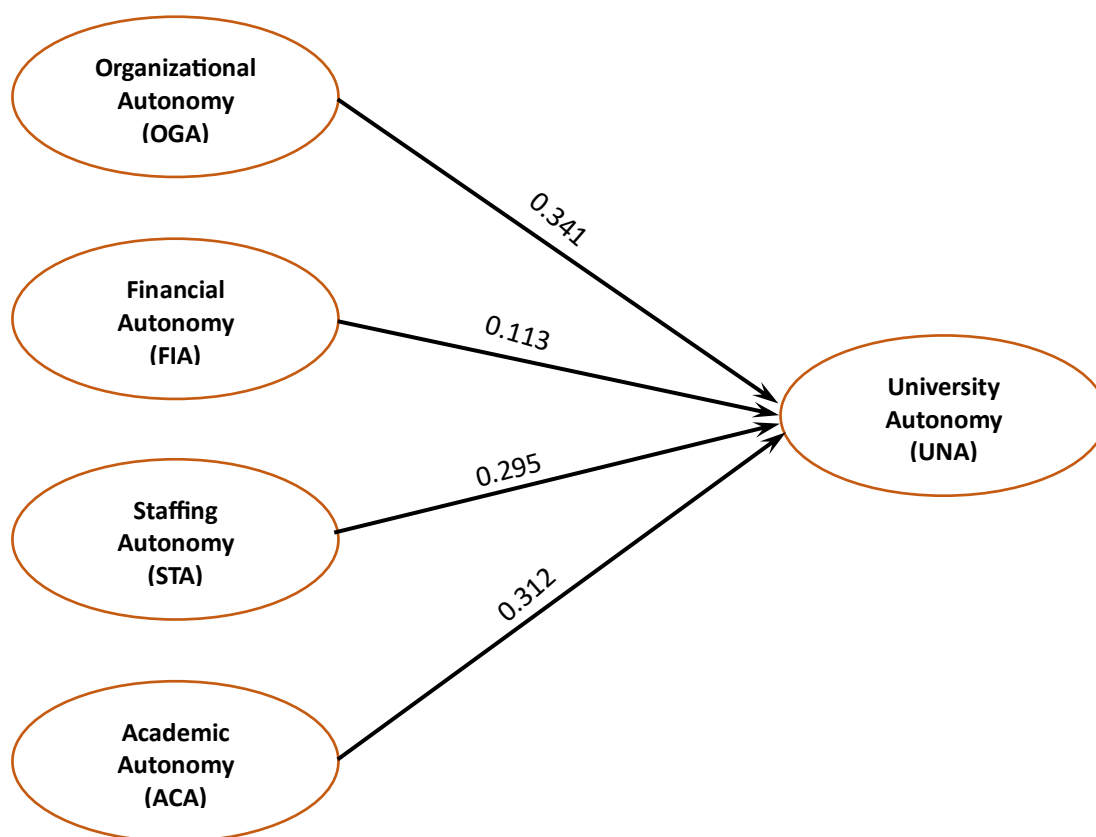
The structural model provided an excellent model fit result (χ^2/df 1.612; CFI 0.988; TLI 0.986;

RMSEA 0.037). Four hypotheses (H1 to H4) that examined the direct correlation between university autonomy and organisational autonomy, financial autonomy, staffing autonomy, and academic autonomy were found to be supported by the analysis's findings (H1: = 0.341, p .001; H2: = 0.113, p .05; H3: = 0.295, p .001; and H4: = 0.312, p Table 4 presents the findings related to the testing of hypothesis.

Table 4: Hypothesis Results

Hypothesis	Path			Estimate	P	Support
H1	UNA	←	OGA	0.341	<0.001	Yes
H2	UNA	←	FIA	0.113	<0.05	Yes
H3	UNA	←	STA	0.295	<0.001	Yes
H4	UNA	←	ACA	0.312	<0.001	Yes

Figure 2: Hypothesis Testing Results



4. Discussion

This study aimed to study the perception of the current regulatory policy governing the universities in India. The study considered four different universities in India including State, Deemed, Central, and Private Universities. The data collected was analysed using structural equation modelling to understand the impact of different elements associated with the university autonomy. The first hypothesis (H1) tested the association between organizational autonomy and the university autonomy. This analysis yielded a positive association between the hypothesised variables implying that the organizational autonomy aspects have a positive and significant impact on the university autonomy. The findings were explainable as the organizational autonomy of the universities encompass important aspects such as the formation of various statutory boards and councils which predominantly control all the important decisions of the universities. The present regulatory structure has a strong influence on the appointments of members on various governing bodies of the universities, be it the State Universities Acts or the central universities Act., 2009, even the deemed universities have the representation of the central or state government on the Executive Council. The compliances on the private universities Act of several states have the proviso for the representation of the government representative. The approval process of Private universities (for eq. The Uttar Pradesh Private Universities Act, 2019) has multiple provisions that exercise excessive control over the Private universities. Hence the organizational autonomy has a greater influencing power to impact the organizational autonomy of the universities.

The second hypothesis (H2) analyses the impact of financial autonomy on the autonomy of the universities of India. The results of the analysis revealed a positive influence of financial autonomy on the university autonomy. The financial autonomy therefore emerges as another major impediment in the process of autonomy of the universities in India. This finding does have a substantial reason to be true as reflected in the various regulations of the university. One of the foremost aspect of financial autonomy emerges from the control of the grants and the regulation related to the decision of the fees by the respective governments be it Central or State governments. The deemed universities which receive 50% or more grants have been specifically mandated to undergo rigorous checks and balances and have the involvement of government officials and the UGC representatives in several bodies. The State's Universities Acts have stricter provisions for controlling the finances of the universities (For eq. S.8 of the Maharashtra Public Universities Act, 2016).

The Third hypothesis (H3) enquired the association of staffing autonomy and the university autonomy. The analysis returned that there is significant and positive influence of staffing autonomy on the overall autonomy of the universities. This finding has confirmed that the staffing autonomy also has a significant impact on the autonomy of the universities and is quite evident from the present regulatory structure of the universities in India. For instance, section 11.02 specifies strict guidelines for the decisions related to the fixation of fees, subsection (iv) of the Deemed University Act 2022, specifies the role of UGC in determination of the fees. Moreover, the state governments have established the fee Regulatory Authorities (FRA) for the purpose of fixation of the fees of the Universities and its affiliated colleges. Additionally, The State Public Universities Act also have specific provision to abide by the guidelines of the respective State government, when it comes to decisions related to revenues and expenditure of the universities, including salary of the employees. The norms are even stricter in case of the funding provided by the state governments or central government as the case may be.

The fourth hypothesis (H4) attempts to explore the influence of academic autonomy on the autonomy of the universities. The results unveil a positive influence of the academic autonomy on the university's overall autonomy. This description is indeed of vial consequence and can be explained by many past and recent development that have been highlighted with regards to the academic autonomy. Academics have in the past raised specific concerns about the erosion in the academic autonomy of the universities in India. The approval process of the universities specifically demands an outline of the courses and programmes that any university intends to begin during its formative period. For example, the section 12(2) of The Uttar Pradesh Private Universities Act, 2019 instructs to the universities to follow the specific guidelines of the regulatory bodies while determining courses of study. The UGC (Institutions Deemed to be Universities) Regulations, 2022, also specifies the institutions seeking approval of the deemed to be university to *inter alia* specify the details of the areas of research in the detailed project report proposal at the time of filing such an application. Several state statutes also provide overarching power to the state governments to prescribe and specify to the universities on multiple academic matters (For eq. Maharashtra Public Universities Act, 2016 section 72(10)). In conclusion the current regulatory environment has a substantial influence on the autonomy of the universities in India.

5. Conclusion

This research employed a **socio-legal analytical methodology** to thoroughly investigate the

existing regulatory framework of higher education in India and to ascertain the level of autonomy enjoyed by Indian universities. The study adopted a **combination of doctrinal and empirical research** and focused on four distinct types of Indian universities: State, Central, Deemed to be Universities, and Private Universities, while intentionally excluding Institutions of National Importance such as AIIMS, IITs, and IIMs.

The empirical evidence was gathered from a diverse group of major stakeholders in Indian higher education through a **specifically designed structured questionnaire**. This questionnaire, comprising six sections and 26 items, was developed based on measures from Pruvot & Estermann (2017) and aimed to measure four critical dimensions of university autonomy: organizational, financial, staffing, and academic autonomy. The **survey instrument underwent a rigorous validation process**, initially qualitative, involving five senior academics, and subsequently quantitative, utilizing exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). Face and content validity were confirmed following procedures by Elangovan & Sundaravel (2021), and the internal consistency was proven as all Cronbach alpha values exceeded the critical threshold of 0.7.

Data collection involved **two rounds of consultations with senior university officials** to identify suitable participants, which included Vice-Chancellors, Deans, Registrars, and Directors, among others. An online survey form, created using Google Forms, was distributed to prospective respondents whose contact details were obtained from the UGC website. Despite sending three rounds of emails, **432 valid responses were collected from the 522 initial replies**, ensuring anonymity and privacy.

For data analysis, the study first performed an elementary analysis for missing values, confirming none. **Common method bias was assessed using a single component CFA model**, concluding that such issues were absent as the obtained value was lower than the common latent factor technique. The **measurement model demonstrated a good fit** with acceptable scores for chi-square/degrees of freedom (1.611), RMSEA (0.036), TLI (0.983), and CFI (0.968). **Confirmatory Factor Analysis (CFA) verified overall consistency**, with factor loadings above 0.40, and sufficient convergent validity was established as loadings and AVE values were greater than 0.50. Discriminant validity was also confirmed. Finally, **Structural Equation Modeling (SEM) was employed** to examine the complex relationships among latent constructs, proving suitable for the study with an excellent model fit.

The analysis confirmed all four hypotheses (H1 to H4), indicating a direct and positive correlation between overall university autonomy and its organizational, financial, staffing, and academic dimensions.

6. Implications

The findings of this study carry **significant implications for understanding and reforming university autonomy** in India, particularly for the State, Central, Deemed, and Private Universities examined.

Firstly, the confirmed **positive association between organizational autonomy and overall university autonomy (H1)** implies that the current regulatory structure, with its strong influence on the appointment of members to governing bodies and approval processes for universities (e.g., State Universities Acts, Central Universities Act, Deemed University regulations, and Private University Acts), **significantly restricts universities' self-governance capabilities**. This suggests that any policy interventions aimed at enhancing overall university autonomy must critically re-evaluate and relax governmental control over the formation and composition of statutory boards and councils within these institutions.

Secondly, the **positive influence of financial autonomy on university autonomy (H2)**, identified as a major impediment, highlights that **governmental control over grants and the decision-making processes for fees** (by both Central and State governments) directly limits the financial independence of universities. The rigorous checks and balances imposed on deemed universities receiving substantial grants further underscore this issue. Therefore, a crucial implication is the need for **greater financial devolution and flexibility** for universities, allowing them more discretion in managing their budgets, setting fees, and engaging in commercial ventures and capital expenditures without excessive external interference.

Thirdly, the **significant and positive influence of staffing autonomy on overall autonomy (H3)** indicates that current regulatory strictures concerning staff appointments, dismissals, tenure, and pay (e.g., as **outlined** in various acts and fee regulatory authorities) **directly impede universities' ability to recruit, retain, and manage their human resources effectively**. The implication is that **reforming staffing policies** to grant universities more authority in these areas could substantially contribute to their overall autonomy and operational efficiency.

Lastly, the confirmed **positive influence of academic autonomy on university autonomy (H4)** points to the **vital importance of academic freedom**, which has been a concern due to approval processes for courses, programs, and research priorities. Regulations such as the Uttar Pradesh Private Universities Act, 2019, and UGC (Institutions Deemed to be Universities) Regulations, 2022, exemplify the overarching control exercised by regulatory bodies over academic matters. This implies that **fostering genuine university autonomy requires a shift towards less prescriptive oversight in curriculum development, introduction/termination of teaching fields, and research priorities**, allowing institutions to innovate and adapt to evolving educational needs.

The study decisively demonstrates that the **current regulatory environment exerts a substantial influence on the autonomy of Indian universities**. The overarching implication is that achieving meaningful university autonomy necessitates a **comprehensive and concerted effort to reform existing regulatory frameworks** across organizational, financial, staffing, and academic dimensions. Such reforms could empower higher education institutions in India to become more self-reliant, innovative, and globally competitive.

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