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Determinants of Performance of Other Parties in 2014 Parliamentary elections

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ABSTRACT

The Paper analyses the performance of all parties taken together, other than BJP and Indian National Congress in 2014 parliamentary election. The paper attempts to empirically examine the relation the seats won and number of parties, percentage of votes polled and per capita SDP jointly as well as separately. Cross section data relating to states has been used. Econometric model, descriptive statistics and two factors ANOVA of alternative pairs of variables is used to analyze the data. Results of the multiple-regression of seats won by Other Parties on all three independent variables, taken together, are subjected to step-wise regression test of multi-collinearity. The model is found satisfactory on all counts. Percentage of votes polled by Other Parties, number of parties contesting parliamentary election of 2014 and per capita SDP are found jointly as well as separately to be the decisive determinants of number of seats won by Other Parties. The degree of influence of percentage of votes polled, number of parties and per capita SDP decreases sequentially in the given order. Other Parties include all regional and national parties other than BJP and Indian National Congress. This paper focuses on other parties as a lot of research has already been done on BJP and Indian National Congress. The reason of the grouping of 7 regional and national parties is based on the number of fewer seats won by these parties than the seats won by BJP and Indian National Congress. However, Other Parties, taken together, have more seats than INC.

Keywords: Election, Other Parties, Percentage of Votes, Number of Parties, Seats Won, GSDP.

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1. INTRODUCTION-RATIONALE OF CLUBBING SEVEN PARTIES

The general election of members of parliament in 2014 was contested by 9 parties in different states of India. The performance of Bhartiya Janta Party (BJP), now the ruling party at the center, and Indian National Congress (INC) have already been analyzed in two different papers. This paper focuses on the combined performance of the rest of the parties taken together. Aggregation of these parties' performance needs explanation. Three natural questions also arise from the title of the paper:

- 1. 'What is the number of parties covered under the heading 'Other Parties'?
- 2. Which are the parties that have been grouped together under the heading 'Other Parties'?
- 3. Why are these parties clubbed together?

One clear answer is that BJP with its allies of NDA has won more than half of the total seats of parliament and Indian National Congress has emerged as the single largest opposition party with 44 members in parliament; but Indian National Congress has fallen short of numbers required to qualify as the leader of opposition in parliament. Obviously, the performance of all other parties in the election does not require party-wise analysis. Besides, most of these parties have not contested the election for all the seats from all states. Some of these parties have not even contested all the seats in a state singly or jointly with their allies. However, Other Parties have together won more seats than Indian National Congress. Answers to the questions posed at the beginning of the paper will also emerge and shall become clear in proper context from the discussion that follows.

2. BACKDROP OF INDIAN POLITY AND POLITICAL PARTIES

Anne Besant, a national of Britain by birth, founded Indian National Congress with the cooperation of some Indian leaders like Tilak, Gokhale, Ranade. Several others like J. C. Kumarappa, Mohmad Ali Jinnah were important leaders. Mohan Das Karam Chand Gandhi was welcomed into the fold of Indian National Congress when he returned to India from South Africa with his experience of high handed and Oppressive British rule. M.K. Gandhi emerged as an undisputed leader of INC In no time. He transformed the INC within a short period and INC emerged as a national party with massive following of the people, especially after the launching of non-cooperation movement and Dandi March to break Salt Law. The following by the masses was made possible by his extensive tours of various places in India and the organization of public meetings by local leaders for him to address the people across the country. Holding of and addressing such public meetings despite imposition of section 144 and banning of public meetings by local administration often resulted in lathi charge, use of tear gas and even firing by the police; it resulted in injuries and even deaths of people; it aroused the anger of the people and opposition to British rule. Other leaders of Indian National Congress also followed Gandhi's lead and undertook extensive tours of the country.

Mohamad Ali Jinnah, an erstwhile important leader of Indian National Congress, left INC and founded Indian Muslim League (IML) as a separate political entity, since he felt out-numbered and marginalized by other Congress leaders, who followed M. K. Gandhi. Political agenda of IML revolved round the Muslims of India, so it espoused the political ideology, which was governed and guided by tenets of Islam. Consistent and sustained publicity blitz led to the creation of serious gulf between Muslims and Hindus, while communal strife became palpably crystalized. In due course, IML started demanding partition of

India and creation of Pakistan as an independent nation of Muslims. It naturally created Hindu reaction and consequently Hindu Maha Sabha (HMS) emerged as a different political party in pre-independent India. Hindu Maha Sabha emerged as a distinct political entity in response to the emergence of Indian Muslim League in Pre-Independence period in India. Hindu Maha Sabha advocated that Hindustan is basically the country of Hindus, where Hindu culture and civilization prevails. Hindu Maha-Sabha propagated Hindu Nationalism to counter Indian Muslim League's attempt to spread Muslim Nationalism for the creation of 'Pakistan as a new country of Muslims by the partition of India. Pankaj Mishra opines that various thinkers and analysts have painted the Hindu Nationalism in varied colors and shades. He states that "Arrangement of figures- from Narendra Modi alleging that Sonia Gandhi with her Christian ancestry represents Rome Raj, and V.S. Naipaul raging about the Muslim invasions of India to today's trolls attacking Western scholars and journalists-have offered a distinctive version of Indian history: one in which the glorious Hindu past is violated by various foreigners' (Hindu Nationalism is more Italian and Christian than Sonia Gandhi, P. 22, January 22, Sunday Times of India). However, V.D. Savarkar, freedom fighter and undisputed leader of Hindu Maha Sabha, exclaims that '; Hindus are a people, who possess common pitrabhumi or fatherland, common blood, common sanskriti (culture and civilization), and a common punaybhumi or holy land'; Akhand Bharat or indivisible India is the Hindus karmabhumi or land of action for Hindus. In our opinion, L. K. Advani has formulated an improved version of the concept of Indian/Hindu nationalism. He opines that India has the composite culture which has been evolved over a long period of history; it has absorbed varied shades and strands, which cannot be viewed in parts and compartments. Therefore, all the Indians have to adhere to and uphold the same Indian nationalism (Formulation based on L. K. Advani's views expressed in his public discourses from time to time). Incidentally, Hindu Maha Sabha lost its sheen after the exile of Savarkar to Andman and Nicobar, where he was put in Celural-Jail.

Communist party of India also emerged after the spectacular political and economic success of communist regime, which assumed power after Bolshevik revolution in 1917 in USSR. Khan Abdul Gaffar Khan, also known as Frontier Gandhi of North West Frontier region, founded a socio-political group, which was known as Khudai Khidmat Gars, 'Savants of God'. Meanwhile, Rastriya Swam Sevak Sangh also emerged as an important socio-economic outfit, which espoused the cause of Hinduism and Indian culture. Jan Sangh, the 'Union of People', emerged as the political front of RSS. It was founded by Shyama Prasad Mukerji and Deen Dayal Upadhaya. It was thought to be the counter weight to Indian Muslim League. Thus, Indian National Congress, Indian Muslim League, Communist Party of India, Jan Sangh and Hindu Maha Sabha were the five main political entities in pre-independent India. Jai Prakash Narain and Dr Ram Manohar Lohia founded Socialist Party in 1946 after severing their ties with INC.

3. SCHISM AND IDEOLOGICAL DIVIDE IN INDIAN POLITY

An important aspect of Indian polity is its socio-economic and regional schisms. The underlying factors of these schisms and chevages are that the backwardness of the regions and poverty of the people are coterminous on the one hand, and caste of the people and their poverty coincide on the other (Prakash, Shri and Mahapatra, A.C., 1980). Besides, there exists sharp divide between Bharat (Rural) and India (urban). Personality of the main leaders of the parties, ideology and socio-economic issues are important factors behind the formation of new political parties and splitting of the existing parties. The history of Indian polity and politics during the twentieth century and first 16 years of twenty first century is dominated by the periodic splits in

Indian National Congress Party and the Socialist Party (ie) in India. Almost all the leaders of socialist hues and shades have been members of Indian National Congress at one or the other time. The heritage of periodic breaks/splits in Indian National Congress has been carried forward by the leaders, who left Indian National Congress and formed new party, which professed the ideology of socialism. The tradition of dissent and the parting of ways with the mainline thinking of Indian National Congress party has been continued in Indian National Congress party till now.

Independent India witnessed rapid proliferation of political parties. Most of the newly created political parties had emanated from the stable of Indian National Congress. Several young leaders of Indian National Congress were not in agreement with the main facets of political and economic ideology professed by the senior/nationally established leaders of Indian National Congress. The leadership of Indian National Congress came under pressure exerted by emerging young leaders like Jai Prakash Narayan and Dr Ram Manohar Lohia, who wanted the Indian National Congress to adopt socialism as its political and economic ideology. When they found themselves frequently over ruled by senior leaders of the party, they formed Congress Socialist Party (CSP) in 1934 as a separate political entity. But they did not leave Indian National Congress. The idea was to put pressure on Indian National Congress from within the party rather than from outside the party to modify its socio-political and economic agenda to conform to the tenets of global socialist movement. Fabian Socialism had acquired considerable momentum in Britain during that period. Besides, the spectacular political and economic success of the communist regime by implementation of tenets and principles of socialism in USSR influenced such leaders a great deal. Several young congress members with socialistic leanings had been greatly influenced by Prof. Laski at London School of Economics. Some other parties were formed on the pattern of Indian Muslim League and Jan Sangh/Hindu Maha Sabha. A recent report of Election Commission of India, published in News Papers, shows that there are nearly 219 political parties in India and some of these parties have never contested any election to parliament, state assemblies or even local self-governments. Some politicians leave their political parties, if they are denied party ticket to contest assembly or parliament elections or even election to local self-government. Some of these parties may, however, contest some or the other election. For example, Sakhi Praja Party (SPP) of Gaziabad/Gautam Budh Nagar, contested 2014 election but fared very poorly in handful constituencies where its candidates contested election. This party never contested any election before 2014. Now, it has sponsored candidates in few assembly constituencies for 2017 election for UP assembly. Some politicians contest elections after being expelled from or denial of ticket for election by their parties. Some of these parties stand now delisted and derecognized by the Election Commission. Such parties are reported to have been used for money laundering and disguising black money as white. There is another segment of local, state and regional parties, which exercise influence in specific areas/ states/regions. Each local/provincial or regional party has its supreme leader or boss, who wields power over the members of the party and a segment of voters follow them. They contest elections in the areas of their influence. National parties are generally governed by internal democracy, these parties have an elected president and secretary, besides the executive committee. Party President may also have one or more vice presidents. It is a different matter that Indian National Congress has become a party dominated by hereditary leadership of one family, though most of the provincial and regional parties are also family owned and operated outfits. The Indian political landscape is dotted by diverse political, economic or social ideologies and politicians' personalities of different hues, shades and colors. Therefore, ambitions, urge to differentiate one from the rest and personality clashes of politicians abound in Indian polity. However,

even during the colonial rule, a distinct group of young Congress leaders like Jai Prakash Narayan and Dr Ram Manohar Lohia and their followers operated in Indian National Congress, to put pressure on national leaders of Congress to adopt the socialist Utopia. This group became known as Ginger group of Congress party in the second half of 1960s.

The Indian National Congress had two groups even during the pre-independence era; these groups were known as Naram (soft/pacific) and Garam (hot/aggressive) groups. The first was headed by Mahatma Gandhi, which followed the path of Ahmisa/non-violence. The other group has had Ras Bihari Bose and Subhas Chandra Bose as the adherents to the ideology of Garam Dal, who felt that the British would not quit India on their own; they could be ousted only by armed struggle. Revolutionaries like Bhagat Singh, Chandra Shekhar Azad, Ram Prasad Bismil and Shafaqat Ullah also followed the ideology of Garam Dal in a militant way out-side the Congress fold. The Congress leadership found it very difficult to disown the revolutionaries due to the respect and the following they commanded among the Indian masses. These dissensions in Indian National Congress ultimately resulted in the formation of Forward Block towards the close of 1940s. Interestingly, leaders of Forward Block(FB) did not call it a party, though the Forward Block continues to act as a political party still in West Bengal. Meanwhile, Congress floated Bharat Sewak Sangh (BSS), a social service group, while Rastriya Swam Sevak Sangh (RSS) emerged as a distinct entity, which espoused the tenets of Hinduism as the foundation of composite Indian culture. Subsequently, Jan Sangh emerged as a distinct political entity, which was supported by RSS.

In late 1960s a group of young leaders like Chandra Shekhar, Tarkeshawri Sinha, Krishna Kumar and K. C. Pant came to be known as 'Ýoung-Turks' of the Indian National Congress party. They professed views which were different from those of senior leaders. Ideological differences among the leaders, clash of personalities, and espousal of the cause of specific social or occupational groups like labor and farmers, and even personal ambitions have been the root cause of split in political parties. Formation of Muslim League and Hindu Maha Sabha in pre independence era is an example of personality clash and espousal of sectarian causes as the factors of formation of political parties in India. As against this, formation of Communist Party of India, Forward Block and Praja Socialist Party (PSP, headed by J. B. Kriplani) are examples of ideological differences as the root cause of split in the parent Indian National Congress party.

Subsequent break-up of CPI into CPI and CPI (M) was also caused by sharp ideological differences between two groups of communists in India; ideological differences were greatly accentuated by the emergence of Gang of Four and Maoism in China in nineteen sixties. PSP was also split when Dr Ram Manohar Lohia formed Socialist Party (SP), since he differed from other erstwhile socialist leaders on ideological grounds. Both Communism and Socialism revolved round perennial conflict between labor and capitalist classes, the chasm/divide between these classes arose from conflict of their interests which was aptly highlighted first by Engel and Marx; and it was used as an ideological differentiation by Lenin, Maotuse Sung and others. This was the base of communist movement across the globe, including India. Laski at London School of Economics became the patron of socialism and socialists, including Fabian Socialism. Fabian Socialism became the base of cooperative movement. The cooperation played the role of mitigating the economic constraints of the poor. Like the banks. Cooperative societies of different interest groups, mobilize small sums of savings from its members and transforms the same into huge amounts to be used to help its members. But Lohia differed from the traditional communist paradigm of class conflict between laboring and capitalist classes; he envisaged that the caste system in India was not only at the

base of social differentiation, divide and discrimination but it also coincided with the economic divide. Caste system lay at the base of economic inequalities. People belonging to Scheduled and Backward castes were not only socially handicapped but they were poor also. As against this, people of upper castes called Savarns, were rich as they owned land, other real estate and capital. Almost all the people of Scheduled Castes (SC) and Scheduled Tribes (ST) category were poor. But most of the persons of upper castes were rich. The inter-mixing of poverty with castes was a fact of Indian society, its polity and economy. Dr Lohia wanted this to be used as the major plank for popularizing socialism among the Indian masses. Other leaders did not agree with Lohia, since they thought that the seeking of support and votes on the basis of caste, region or religion went against the secularism, which is an important aspect of Indian Constitution. They thought that political exploitation of caste divide shall perpetuate the caste system which the founding fathers of Indian Constitution wanted to abolish. But, Dr Lohia went ahead with his plan to establish a separate Socialist Party, which will operate according to his ideological thoughts and tenets. Both PSP and SP performed poorly in election of 1962, which persuaded leaders of both parties to come together and merged PSP and SP to form new party and named it Sanyukt (Joint/Combined) Socialist Party (SSP) which again broke into different parties towards the end of 1960s. Swatantra Party also emerged in the political horizon of India in early sixties; its economic ideology was derived from the tenets of capitalism, which operates on free enterprise and autonomous market as the arbiters of economic decisions. Indian National Congress also adopted the slogan of "Socialistic Pattern of Society" as the driving political force; Jawahar Lal Nehru, the then President of Indian National Congress and the first Prime Minister of India, coined this term at the Avadi session of the Congress party. This was a disguised attempt to snatch the political and economic ideology of other parties. It is interesting to note that socialism emerged as the potent political instrument in India thereafter. Only Swatantra Party, under the leadership of Rajgopalcharya, the first Governor of free India (who replaced erstwhile British Governor Mount Batten) and Minoo Masani and Jan Sangh under the leadership of Shyama Prasad Mukerjee and Pandit Deen Dayal Upadhaya, were the only parties to advocate free enterprise and market based economy. Jan Sangh along with most other political parties merged themselves in newly formed, Janta Party, after the lifting of emergency to contest parliamentary election of 1977 against the Indian National Congress, which was divided into to two Congress parties under the nomenclature of Congress (I) and Congress (O). O referred to old congress headed by Nilam Sanjiva Reddy and 'I' stood for Indira Gandhi, who was instrumental in the split in INC. Thus, Janta Party was an agglomeration of most of the political parties except the Communist Party of India. But CPI also supported the Janta Party government from outside. Incidentally, Janta party was also broken into several splinter parties after the parliamentary election of 1983-84 which was won by Indian National Congress under the leadership of Smt Indira Gandhi. Bhartya Janta Party (BJP) was formed under the leadership of Atal Bihar Bajpai and Lal Krishna Advani.

The current Indian socialists of all hues have degenerated into leaders of particular castes. But the subsequent divisions of socialist party after the death of Dr lohia were triggered largely by narrow personality clashes, which gave rise to one or two castes as the vote banks. Incidentally Chaudhary Charan Singh (former Prime Minister), the founder of Rastriya/Bhartiya Lok Dal (RJD/BLD), a splinter group of socialists, tried to consolidate four backward castes into a single unified political force in parts of North-India; he gave AJGAR as its slogan. Each letter of AJGAR refers to one caste: A, stands for Ahirs (Yadavs), J for Jats, G for Gujjars and R for Rajputs. His Bhartiya Lok Dal is now headed and led in U.P. by his son, Ajeet Singh. But its influence is confined to few constituencies in Western U.P.. There are remnants of original

Lok Dal in Haryana also; it is controlled by the family of late Devi Lal (former Deputy Prime Minister), and the co-founder of Lok Dal. Om Prakash Chautala, son of Devi Lal, and his son control this party in Harayana. Incidentally, Mr Om Prakash Chautala was caught at Delhi Airport with contraband and his father Devi Lal, then Deputy Prime Minister of Ianta Party government at the center, publicly disowned Om Prakash Chautala as his son. However, father and son joined hands soon after. Politicians thus take advantage of short memory of the public.

Even before the attainment of independence, colonial rulers granted India limited autonomy as self-rule in the form of provincial assemblies and local self-governments, theses came into existence right from the villages and towns/cities to districts, and from districts to provinces due to relentless pacific as well as violent pressures put on the British rulers by the people and political leaders of India, who have massive following. Elections were held for provincial assemblies in 1930s and local self-governments. Indian National Congress won these elections in all provinces except undivided Punjab, where Indian Muslim League formed the government. North West frontier elected the party of Khan Abdul Gaffar Khan. This became the precedent for post-independence democratic polity of India.

The Election Commission, in the results of General Parliamentary Election of 2014. recognized the following five as National Political Parties: 1. Indian National Congress (INC), 2. Bhartiya Janta Party (BJP), 3. National Congress Party (NCP), 4. Communist Party of India -Marxist (CPI-,M), and 5. Bahujan Samaj Party (BSP). Thus, Election Commission of India distinguished national parties from the rest of the political parties. National parties are those, which wield influence across the country and contest the assembly and parliamentary elections in most of the states of the Union of India. Influence and voters' support to Non-National parties are generally confined to one or two states; therefore, such parties contest general parliamentary and assembly elections in one or two states. DMK and ADIMK (Tamil Nadu) Akali Dal (Panjab), Rastriya/Bhartiya Janta Dal (RJD/BLD), LJP and Janta Dal United (JDU) (Bihar), Samajbadi Party (SP), Lok/Bhartiya Janta Dal (Ajeet Singh), Kaumi Ekta Party and Apna Dal (UP), Bhartiya Janta/Lok Dal (BJD) (Odisha), and Trimul Congress, Forward Block, CPI (West Bengal), Shiv Sena and its splinter group (Maharastra) are some of the examples of such rehional parties. Though the division of Indian National Congress party during pre-independence era was based largely on ideological grounds, yet establishment of Indian Muslim League, Hindu Maha-Sabha and Jan Sangh was based partly on ideological and partly on personality clash, personal ambition and personality clashes. This trend continued in early years in postindependence. But the vertical divide of Indian National Congress into Congress (O) and Congress (I) in late 1960s was caused by personality clash and individual ambition to acquire sole control of the party. But the foundation of dynastic control over Indian National Congress was laid down some times in late 1950s, when Jawahar Lal Nehru got his daughter, Mrs Indira Gandhi, appointed President of Indian National Congress. It may also be mentioned that J.L. Nehru followed the lead of his father, Moti Lal Nehru who got him inducted into Indian National Congress on his return from Cambridge. The division of Indian National Congress in late 1960s was also an outcome of struggle against the stranglehold of the old leaders over Congress party after the death of Jawahar Lal Nehru. Once Mrs Indira Gandhi emerged as the sole undisputed leader of Indian National Congress in 1971, it became a continuous succession of one after the other member of Nehru-Gandhi family. Rajiv Gandhi became prime minister after the sad demise of Mrs Indira Gandhi though he has had no political experience of either the government or the party. After his death, Mrs Sonia Gandhi took control of the affairs of Indian National Congress. Now she has Rahul

Gandhi and Priyanka Gandhi as her successors. The dynastic control over the party and government gave birth to the concept of Congress High Command. The pattern of dynastic control and succession has been followed by caste/religion based leadership's control over regional parties in U.P., Bihar, Tamil Nadu, Punjab, Haryana, Jammu & Kashmir and to some extent in Karnataka and Andhra Pradesh. Interestingly, succession of old by the young leaders of specific families has resulted in some systematic change. But assembly elections in Panjab, U.P., Uttrakhand, Manipur and Goa have brought about an iconic change as the young successors of Indian National Congress and Samajbadi party of UP have challenged the existing system itself with a view to overcome their anti-incumbency handicap. They seem to have followed Mrs Indira Gandhi's legacy, who came out with a new slogan of Garibi Hatao-Remove Poverty and 16 formula based program of action to mop up majority support after she vertically divided Indian National Congress (CF. Saba Naqbi-Arithmetic or Chemistry', Times of India, January 24, p. 22). Arithmetic and personal chemistry based both on caste and community calculus and personal charisma play catalytic role in Indian democracy. This is also supported by Saba Naqbi, a political commentator, who opines that "Most of the" political 'analysis' by politicians and political parties 'derives from equations such as X community plus Y community means victory" in election "and so on. Competing parties therefore spend as much energy on trying to split the votes of their opponents as on garnering their own votes". She further asserts that "Indeed so many tickets given to Muslims" by BSP "results in counter polarization among other groups such as non-Chamar Dalits, ECB and upper castes" (Times of India, January, 24, p.22). Declaration of election results of these elections has now catapulted BJP and its allies as the ruling party in four of the five states where elections were held; Punjab, where Congress emerged as the victor, has emerged as an exception to Pan-India trend in favor of BJP from North West and West to Nrth East.

Above discussion does not mean that there had been no political activity, politicians and democracy in India before the advent of British rule. Roots of democracy in India go deeper than the rest of the world. India was dotted by village democracies (Gram Gantantras) before the emergence of Gupta Empire in Ancient India. These village democracies were assimilated in Gupta Empire by Samudra Gupta (Prakash, Shri and Chaturvedi, H., 2013). During this period, each village was self-sufficient and self-reliant under Gram Swayraj (Village Self-Rule). But there were no full time professional politicians and political parties. Village leaders used to be elected directly by show of hands in the meetings held for this purpose. Village leaders were often elected unanimously or by consensus. The Scandinavian Direct election of Local Self-governments resembles this ancient Indian practice. However, elections of village panchayats in modern India are contested on party basis.

4. FACTORS BEHIND PROLIFERATION OF POLITICAL PARTIES

Indian polity is dominated by the competition for occupying political space and cultivating the people in the name of socialism, which has also been used as a mask for creating vote banks or support base among specific castes and religious communities. Poverty of the people and their sticky and inflexible caste and religious affiliations often offered the opportunities to political leaders to create vote-banks in the name of promotion of caste and communal interests. Besides, socialist movement in India had competed with communist ideology and they stole the thunder of communism by aligning socialistic thoughts with the socio-economic reality of India. Jawahar Lal Nehru, who was first Prime Minister of India, also took away the basic tenets of socialism for Indian National Congress. Besides, communalism is being used as secularism.

Secularism, the basic principle of Indian Constitution, has often been used to oppose BJP. Commitment to secularism is skin deep; it is used as a slogan by non-BJP parties to garner votes of minorities, especially the Muslims. The Constitutional provisions also stipulate that no one shall be discriminated on grounds of gender, caste, religion or region; but these social divisions are used as strategic elements for electoral gains by practically all the parties and politicians. These factors are perennially used as electoral strategy; other factors such as anti-incumbency against the ruling party, performance reflected by development gains, corruption, inflation, good governance reflected by maintenance of law and order and timely decision making, efficiency, provision of basic needs such as supply of potable water and uninterrupted electricity and construction and maintenance of roads, etc. affect electoral calculus. Successful exploitation of various factors by the contestants influences the outcomes of voting. But the socio-political and economic environment changes from election to election. Nation-wide relatively greater success of the Indian National Congress and BJP than the Socialist and Communist parties in India is explained by the conglomeration of varied factors. Caste and religious composition of population, personal image of the candidates and respect commanded by the national/regional /party leader(s) do play decisive roles in elections. The influence of caste and religious composition as a part of electoral strategy may be gauged from the following headline (P.11, Hindustan Times, January 20, 2017): "SP-Congress eyes 35-37% of total votes-will attempt to get 25% of non-muslim and a big chunk of muslim votes". It further states 'Also, as the lead Secular player at the national level, Congress is expected to check the drift of Muslim votes to BSP by creating the perception that the alliance is the main challenger to 'Communal' BJP'. 'On offer in U.P. are roughly 25% upper castes, 10% of Yadav and 26% of non-Yadav OBCs, besides 18% Muslims and 21% Dalits". It further continues "The challenge for SP is the antagonism between upper castes and OBCs and the schism BIP is trying to crack open among backwards by wooing non-Yadav OBC and most backwards'. Similarly, the same page carries the explanation of BJP's electoral strategy as follows under the heading, "In UP, BJP pins hopes on division in Muslim votes". It continues "As the UP polls settles into a three way tussle with the Samajwadi party remaining intact and looking set to strike an alliance with congress, BJP is banking on a division in Muslim votes to facilitate an important victory...do not agree that Muslim vote will move en-mass" in favour of SP-Congress alliance (The Times of India, p. 11, January, 20, 2017). The times continues on the same page "Ajit Singh a victim of his own image? Ajit Singh's low trust quotient owing to his controversial political innings has come to haunt him with one time Jat strong man having the weakest hand in the 'Secular' coalition in the making." It is paradoxical that such political leaders as base their electoral calculus on castes and religious affiliations of voters and proclaim themselves as the saviors of minority community and/or protector of the interests of specific castes declare themselves secular. But this has been bane of Indian polity for long.

It is obvious that the term 'Öthers' in the political context of India, refers to all parties other than the ruling party at the center or states. But in the context of general election to parliament in 2014, "Other Parties" refer to seven parties, their percentage of votes polled and seats won are aggregated; this group excludes Indian National Congress and BJP. But the group includes the following three national parties: 1. Nationalist Congress Party (NCP), 2. Communist Party of India (M), and 3. Bahujan Samaj Party. (BSP). Other 4 parties, included in this group, are regional parties like DMK and AIDMK of Tamil Nadu, BLD of Odisha and TMC of West Bengal. Above discussion furnishes evidence that (i) Number of parties, which are grouped under Other Parties label exercise influence over electorates in regional and local confines; (ii) Influence of other parties exists in the midst of vast diversity of Indian society, (iii) Above two factors provide rationale of clubbing such parties in one single group.

5. DATA BASE AND METODS OF ANALYSIS

Data used in the paper have been taken from the same source from which the data for analyzing the performance of BJP and Indian National Congress are taken. Part and state wise data have been taken from the Web site of Election Commission of India and state wise data of per capita GSDP is taken from Economic Survey, Ministry of Finance, Government of India.

Descriptive Statistics, Two Factor ANOVA and Bi-variate and multiple regression equations are used for analyzing the data. The same three variables as have been used in the analysis of performance of BJP and Indian National Congress are used as the pre-determined variables to determine the seats won by Other Parties. Percentage of votes polled, number of parties and real per capita GSDP are treated as determinants of number of seats won in the 2014 parliamentary election.

6. ANALYSIS OF EMPIRICAL RESULTS

Empirical results are derived by the application of (*i*) tools of descriptive statistics, (*ii*) Two-Factor ANOVA without replication, and (*iii*) econometric models. First, the results derived by the application of descriptive statistics are discussed. It is followed by the analysis of results furnished by two factors ANOVA. It is followed by the discussion of results provided by econometric models.

7. ANALYSIS OF RESULTS OF DESCRIPTIVE STATISTICS

Tools of descriptive statistics are applied to data for obtaining an insight about the basic features of distribution of data pertaining to seats won, percentage of votes polled, number of parties which contested the election of 2014, and state wise real domestic product in 2014. Mean, Median, Standard deviation/variance and coefficients of Kurtosis and Skewness are the major tools of descriptive statistics. Excel is used for calculating the values of the mentioned statistics. Table given below contains the results of calculations.

Table 1

Descriptive Statistics of Performance of Other Parties

| | | | Descriptive | Statistics | | | |
|-----------------------|-----------|-----------------------|---------------------|-----------------------|------------|-----------------------|----------------|
| | Seats Won | | %of Votes polled | | Sdppc | | No. Of parties |
| Mean | 6.0285714 | Mean | 35.06742857 | Mean | 1497.82857 | Mean | 6.8 |
| Standard Error | 1.8739639 | Standard Error | 4.404147899 | Standard Error | 290.238562 | Standard Error | 0.34495159 |
| Median | 1 | Median | 37.55 | Median | 752 | Median | 7 |
| Mode | 0 | Mode | #N/A | Mode | 53 | Mode | 9 |
| Standard Deviation | 11.08652 | Standard Deviation | 26.05529034 | Standard Deviation | 1717.07449 | Standard Deviation | 2.0407611 |
| Sample Variance | 122.91092 | Sample Variance | 678.878155 | Sample Variance | 2948344.79 | Sample Variance | 4.16470588 |
| Kurtosis | 3.2270192 | Kurtosis | -0.891012702 | Kurtosis | 4.99999866 | Kurtosis | -0.698418 |

| | Descriptive Statistics | | | | | | | | | | | |
|----------|------------------------|---------------------|-------------|----------|------------|----------------|------------|--|--|--|--|--|
| | Seats Won | %of Votes polled | | | Sdppc | No. Of parties | | | | | | |
| Skewness | 2.0796008 | Skewness | 0.257937117 | Skewness | 1.93476428 | Skewness | -0.3074223 | | | | | |
| Range | 37 | Range | 93.2 | Range | 8018 | Range | 8 | | | | | |
| Minimum | 0 | Minimum | 0.57 | Minimum | 38 | Minimum | 2 | | | | | |
| Maximum | 37 | Maximum | 93.77 | Maximum | 8056 | Maximum | 10 | | | | | |
| Sum | 211 | Sum | 1227.36 | Sum | 52424 | Sum | 238 | | | | | |
| Count | 35 | Count | 35 | Count | 35 | Count | 35 | | | | | |

Source: Author's Own Calculations

A perusal of the above table reveals that

- 1. Other Parties won, on an average, 6 seats, while they got an average of 35% of total votes polled by all the contestants in the election. Interestingly, average number of parties in the contest is also 6.8. Thus, average number of seats won by 'Other Parties' and average number of parties in election fray are almost equal. It implies an average of one seat won per state per party.
- 2. As the average number of 6 seats won by 'Other Parties' is less than one sixth of total number of states, where general election was held, it highlights the fact that the influence of the Other Parties is confined to one or two states.
- 3. Values of t-statistics of the difference between mean and median of seats won and percentage of votes polled by 'Other Parties are 2.69 and 0.56 respectively. These values of t-statistics imply that the number of seats won by 'Other Parties' is not normally distributed among the states, while the percentage of votes polled is almost normally distributed among the states from which they contested the election. This may imply that though the seats won by other parties are unequally distributed among the states, yet the percentage of votes polled for winning the election does not differ significantly among the states. This inference needs more rigorous epirical analysis.
- 4. The coefficient of variation of seats won is as high as 184% and 123 value of the variance is also very high; these figures imply a very high degree of unequal performance of 'Other Parties' measured by number of seats won in different states. This inference lends support to the earlier inference of unequal distribution of seats won from different states.
- 5. These results point towards not only inequality in the distribution of seats won by Other Parties but also the possibility of high degree of concentration of seats won in few states. These inferences are supported by the values of the coefficients of skewness and kurtosis. Values of these two coefficients are as high as 2.1 and 3.23 both of which are greater than +1. Thus, the distribution of seats won by 'Other Parties' is positively skewed to show its departure from normal distribution, and the distribution of seats won is also concentrated in few states. These results confirm (1) the inference that these parties are not national and their influence is confined to specific states, and (2) inferences drawn from t-statistics, coefficient of variation and variance conform to conclusions drawn from the coefficients of skewness and kurtosis.

- 6. Examination of values of same statistics of percentage of votes polled by Other Parties lead to results somewhat contrary to each other. This is evident from the fact that though the value of coefficient of variation is 74.31%, yet the variance is as high as 679.9. CV suggests that the divergence of percentage of votes polled from mean is relatively low, yet the variance implies very high degree of variation of percentage of votes polled among the states. Coefficients of skewness and Kurtosis also have low values, which conform to the value of t-statistics and the inference drawn from it that the percentage of votes polled by Other Parties is normally distributed. However, high value of variance suggests very high variation of votes polled among the states. These results may probably be reconciled by the statistical property that normal distribution is normalized and standardized by changing measurement in terms of standard deviation irrespective of its high or low value. Incidentally percentages are also standardized units. As against this, seats won are absolute numbers.
- 7. The simple test of t-statistics of normality has been found to furnish the result that may be derived from Jack-Berra and other tests of normality (See, Sharma, Sudhi, (2016) and Kiangi, Richard Fue, 2016).

8. ANALYSIS OF RESULTS OF DESCRIPTIVE STATISTICS OF NUMBER OF PARTIES AND GSDP

The following important inferences emerge from the analysis of descriptive statistics of number of parties and Per Capita GSDP:

- 1. On an average, 6.8 political parties contested the last parliamentary election held in 2014.
- 2. The distribution of number of parties among the states, from which these parties contested the parliamentary election of 2014, is normal; the calculated value of t of the difference between mean and median is as low as 0.68, which is much lower than the critical value of 1.96 at 0.05 probability level of significance. Hence, the value of median converges towards the mean. Thus, the basic feature of equality of mean and median of normal distribution is satisfied by the distribution of number of parties among the states.
- 3. The above inference is supported by as low values of the coefficient of variation and variance as 30% and 4.2.
- 4. Besides, such low values as 0.31 and 0.70 of the coefficients of skewness and kurtosis show that the distribution of parties among the states is neither skewed nor the high values are concentrated in the narrow space around the mode. This means that the 2014 parliamentary election offered an even play field to all parties. Besides, it is explained by the fact that larger the number of parties contesting the election from a state's constituencies, greater is the division of votes and lower is the percentage of polled votes required to win the election. All the loosing parties, taken together, may then represent the majority rather than minority support base.
- 5. Average per capita real SDP of states is Rs.1497.828, while the median real per capita GSDP is only Rs 752. The median per capita real SDP may be taken as the base line, which separates the developed from the under-developed states of India. Median is obviously only a little more than half the mean per capita GSDP. This highlights the sharp divide between the developed and backward states.

- 6. *t*-statistics of the difference of mean and median of Per Capita GSDP is 2.57, which is 1.31 times the critical value of 1.96 at 0.05 probability value of statistical significance. This value of t shows that the distribution of real per capita GSDP significantly diverges from normal distribution; it highlights the substantial degree of inequality of income distribution among the developed and backward/under-developed states.
- 7. Above inference is supported by high value of CV and variance, which are equal to 115% and 2948344.79 respectively. Besides the coefficients of skewness and kurtosis are approximately equal to 2 and 5 respectively; these coefficients also highlight the fact that the spatial distribution of real Per Capita GSDP is positively skewed and high value are concentrated in the narrow space around the mode.
- 8. These results highlight an important aspect of electoral politics. Poverty and backwardness coincide with illiteracy, blind faith, influence of personality cult and easy sway by caste and religious affinities, which may easily be exploited by political parties and politicians. This has also been amply highlighted by discussion in introductory part of the paper. This facet is also supported by the fact that such states as Kerala and West Bengal, which are highly literate, have substantial support base of ideology based parties like CPI(M), CPI and Forward Block, whereas BIMARU states, that is, Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh are dominated by parties whose political support base is strongly associated with caste and religious divide/schism. It does not mean that developed states like Tamil Nadu, Karanataka, Gujarat, Punjab, Haryana and Maharastra are totally free from such political schism. The quantitative differences between these two sets of states are highly marked.

9. ANALYSIS OF RESULTS OF TWO FACTORS ANOVA WITHOUT REPLICATION

Results of descriptive statistics highlight mainly the nature of distribution of the values of the variables under consideration. It also contrasts and compares the mean and median values of the variables. But descriptive statistics do not compare/contrast the variances of the distribution of pairs of different variables. However, the degree and dimension of variation of two or more variables together indicate possibility of inter-related relatedness, that is, correlation. Besides, researchers may also be interested to discern and discover whether the variation within or between the variables is greater. These two sets of variation involve intra-class variation, which reflect the degrees of inequality and which may be of great interest. These limitations of descriptive statistics are overcome by Two Factors ANOVA. Results of Two-Factors Analysis of Variance (ANOVA) are discussed hereunder. The variables combined in alternative pairings.

10. SEATS WON AS BASE OF PAIRING

The winning of election by a party depends on the percentage of total votes cast in its favor by the electorates. The party, which gets the greater proportion of total votes cast than the proportion of votes received by all other contestants, wins the election. Even the difference of one vote may suffice to win/lose the election. Since the number of seats won by the parties are the most critical variable of the system, its pairing with all other three core variables are examined first. Besides, number of seats won has also been treated as the dependent variable of causal relations. Thus, the pairing of seats won by Other Parties has three pairs- one each with percentage of votes received, real per capita SDP and number of parties.

10.1. Seats Won And Percetage Of Votes Received By Other Parties

Number of seats won by a political party determines whether it will form the government or it will sit in opposition in the first past the post in the Indian democratic system. But the candidate, who obtains greater number of votes than all other contestants, wins the election. Total number of seats won by a party thus depends on the percentage of votes secured by the party concerned relative to the votes received by its rivals. Therefore, these two variables are treated as more important than the other two variables. Results of application of two-factors ANOVA are shown in table 2 of results of ANOVA.

Table 2
ANOVA-1: Seats won and Percentage of Votes Receive by Other Parties

| Source of Variation | SS | Df | MS | F | P-value | F crit |
|---------------------|----------|----|----------|----------|----------|----------|
| Rows | 18159.34 | 34 | 534.0981 | 1.995204 | 0.023858 | 1.772066 |
| Columns | 14756.97 | 1 | 14756.97 | 55.12688 | 1.3E-08 | 4.130018 |
| Error | 9101.492 | 34 | 267.6909 | | | |
| Total | 42017.8 | 69 | | | | |

Source: Author's Own Calculations

Each row contains the paired values of seats won and percentage of total votes cast in the election in favor of Other Parties. Hence, the variation between the rows captures the togetherness of seats won and percentage of votes poled by Other Parties in divergence from the mean. Significant variation between the rows may, therefore, suggest that the variables of the pair change together, and hence, these variables are significantly correlated. But, each column shows the degree of variation of the values of the given variable, and hence, the significant variation between the columns highlight the fact that one variable has significantly greater variation than the variation of the other variable from their respective means. Hence, significant variation between the columns may suggest that the two variables are not related at all or related weakly. This property of the results of two factors ANOVA without replication furnishes the backdrop of the interpretation of results.

The results of ANOVA-1 show that the seats won and percentage of votes secured by Other Parties significantly vary together between the states. The variation is statistically significant at 0.024 probability level. Therefore, the calculated value of F-statistics is treated as statistically significant. This may suggest that the seats won and the percentages of votes secured by Other Parties in different states are correlated. But the variation between the columns is also statistically significant. The variance between the columns is statistically significant at 1.3E-08 probability; it is much smaller than the 0.024 value of probability at which between the rows variation of seats won and voting percentage is found statistically significant. Consequently, F-Statistics of between the columns variation is much greater than the value of F for rows. This suggests that the seats won and voting percentage secured by Other Parties are significantly related. The validity of this inference shall be rigorously examined by regression model.

10.2. Seats Won And Real Per Capita Gsdp Of States

Real per capita GSDP denotes the level and status of economic development of states. But the differentials of factor endowment among the states create inequalities of development, while scarcity of resources constrains the strategy of development and acts as the bottleneck to balanced regional growth. Besides, the

theory of regional growth and observed status of regional development highlight that regional inequalities of development are accentuated in the early stage of economic development, though at the mature stage of growth, regional inequalities tend to decline. Besides, economic growth is positively related to development of such social infrastructure as education, nutrition, sanitation, health, low infant mortality and high literacy rate etc. Such states as lag behind the leading developed states in social infrastructure are characterized by low real per capita GSDP, high illiteracy, low education level, low nutrition and low level of heath of the people and hig incidence of poverty poverty. These factors make people gullible to blind faith, strong caste and religious affinity, and pursuit of personality cult and hero worship See Bardhan, 2004, Prakash, Shri and Sharma, Amit, 2017). These traits of voters are easily exploited by political parties and politicians at election time. These considerations lie behind the choice of real per capita GSDP as one of the determinants of electoral performance of Other Parties. The results of two factors ANOVA of seats won by Other Parties and real per capita SDP are reported in table of ANOVA-2.

Table 3
ANOVA- 2. Seats Won and Per Capita SDP

| Source of Variation | SS | Df | MS | F | P-value | F crit |
|---------------------|----------|----|----------|----------|----------|----------|
| Rows | 50460891 | 34 | 1484144 | 1.013535 | 0.484481 | 1.772066 |
| Columns | 38945677 | 1 | 38945677 | 26.59635 | 1.07E-05 | 4.130018 |
| Error | 49787011 | 34 | 1464324 | | | |
| Total | 1.39E+08 | 69 | | | | |

Source: Author's Calculation

The results of ANOVA 2 show that the variation of seats won by Other Parties and per capita real GSDP, taken together, does not differ significantly among the states. It implies that the Other Parties might have won/lost seats in states irrespective of per capita real GSDP. It may suggest that the seats won or lost by Other Parties do not depend on economic development of the states. This finding conforms to the findings by Robert Barro (1992), Dani Rodrik (1996) and few others who find weak correlation between economic growth and democracy; election, based on universal suffrage, is the strongest indicator of democracy. These authors have used panel data of 100 and 90 countries respectively. Therefore, such factors as caste and religious composition of population of the states and their constituencies, concentration of influence of other parties in one or two states, and influence of leaders of these parties on one or some castes and religion may explain this result. However, the variation between the columns is statistically significant. It means that the number of seats won by Other Parties from different states significantly differs from the variation of per capita real GSDP among the states. This lends further support to the thesis that the number of the seats won by Other Parties from different states may not be related to per capita real GSDP of states. Such result may also be expected if either economic development of all states does not differ among the states or seats won are treated as fixed at the given level.

10.3. SEATS WON BY OTHER PARTIES AND NUMBER OF PARTIES

It is an observed fact that the number of candidates contesting election from a constituency reduces both the number and percentage of votes received by every candidate. Therefore, greater the number of candidates, smaller is the number of votes and percentage of votes polled by each candidate. It also reduces the margin of victory/defeat in the election. Even the difference of one vote may determine victory or defeat in election. But most of the candidates, who contest elections, represent their parties. Such sitting members in legislatures, who are denied the party ticket, either join some other party just before the election to get that party's ticket, or may contest the election as an independent candidate without any party affiliation. Therefore, the number of parties in electoral battles approximately represents the total number of candidates in electoral fray. This is why the number of parties has been included as an important variable in the analytical framework.

Results of two factors ANOVA of seats won by Other Parties and total number of parties, which contested the 2014 parliamentary election, are reported in ANOVA-3.

Table 4
ANOVA-3- Seats Won and Number of Parties

| Source of Variation | SS | Df | MS | F | P-value | F crit |
|---------------------|----------|----|----------|----------|----------|----------|
| Rows | 2564.486 | 34 | 75.42605 | 1.460342 | 0.137264 | 1.772066 |
| Columns | 10.41429 | 1 | 10.41429 | 0.201634 | 0.656255 | 4.130018 |
| Error | 1756.086 | 34 | 51.64958 | | | |
| Total | 4330.986 | 69 | | | | |

Source: Author's Own Calculations

Results of ANOVA-3 show that neither the seats won by Other Parties together with number of parties contesting election of 2014 vary significantly between the states, nor the number of seats won by other parties from all states, taken together, differ significantly from number of parties which contested election from different states. Obviously, these results do not suggest that seats won by Other Parties are related to number of parties which contested the election from different states.

10.4. Percentage Of Votes Received By Other Parties And Gsdp Of States

Seats won by other parties do not seem to be related to percentage of votes received or Per Capita Real GSDP. Does it imply that the percentage of votes cast in favour of Other Parties is related to Per Capita real SDP? ANOVA of this pair is examined now in order to answer the above question. Results of two factors ANOVA of percentage of votes received by other parties and per capita real SDP of states are shown by ANOVA-4.

Table 5
ANOVA- 4. Percentage of Votes Received by Other Parties and SDP of States

| Source of Variation | SS | Df | MS | F | P-value | F crit |
|---------------------|----------|----|----------|----------|----------|----------|
| Rows | 50356927 | 34 | 1481086 | 1.008957 | 0.489705 | 1.772066 |
| Columns | 37444228 | 1 | 37444228 | 25.50805 | 1.48E-05 | 4.130018 |
| Error | 49909878 | 34 | 1467938 | | | |
| Total | 1.38E+08 | 69 | | | | |

Source: Author's Own Calculations

The table shows that (*i*) percentage of votes received by the candidates of Other Parties in parliamentary election of 2014 taken with Per Capita Real GSDP of states does not vary significantly between the states. It is as if the differences of percentages of votes secured by other Parties and GSDP of states from the combined mean are practically zero. Nil differences of change from state to state may imply that no relationship exists between these variables. Variation of percentages of votes secured from different states, if taken together, does differ significantly from inter-state variation of Per Capita GSDP. The disjoint movement of differences from their respective means also highlight the possibility of these two variables being statistically unrelated.

10.5. Percentage Of Votes Received By Other Parties And Number Of Parties

Rows show the percentage of votes received by Other Parties and number of parties in election fray in different states. Two columns separately depict the state wise percentage of votes received and number of parties in electoral battle. Results of two factors ANOVA of these variables are shown by ANOVA-5

Table 6
ANOVA-5- Percentage of Votes Received By Other Parties And Number of Parties

| Source of Variation | SS | Df | MS | F | P-value | F crit |
|---------------------|----------|----|----------|----------|----------|----------|
| Rows | 12207.54 | 34 | 359.0453 | 1.108173 | 0.383158 | 1.772066 |
| Columns | 13983.33 | 1 | 13983.33 | 43.15876 | 1.58E-07 | 4.130018 |
| Error | 11015.92 | 34 | 323.9975 | | | |
| Total | 37206.79 | 69 | | | | |

Source : Author's Own Calculations

The results of ANOVA-5 show that state wise percentage of votes of Other Parties and state wise total number of parties in election of 2014 in each state taken together, do not show significant variation between the states. But the variation of percentage of votes of Other Parties between the states differs significantly from the variation of number of parties in all the states taken together. This may lend support to the thesis that these two variables taken singly and separately significantly differ from each other. Therefore, the variables may change differently and dis-jointly from each other

10.6. Number Of Parties And Per Capita Real Gsdp

Rows of this table display joint variation of number of parties in electoral battle and Per Capita Real GSDP between the states. But first column depicts the variation of number of parties in electoral battle of 2014 and second column shows the variation of per capita real GSDP between the states.

Table 7
ANOVA-6-Number of Parties and Per Capita Real SDP

| Source of Variation | SS | Df | MS | F | P-value | F crit |
|---------------------|----------|----|----------|----------|----------|----------|
| Rows | 50193210 | 34 | 1476271 | 1.002848 | 0.496716 | 1.772066 |
| Columns | 38905409 | 1 | 38905409 | 26.4289 | 1.13E-05 | 4.130018 |
| Error | 50050654 | 34 | 1472078 | | | |
| Total | 1.39E+08 | 69 | | | | |

Source : Author's Own Calculations

The results of ANOVA 6 show that the number of parties and per capita real SDP does not significantly vary jointly between the states. This may suggest that these two variables are almost uniformly distributed among the states. Therefore, these variables may have no relation with each other. However, the variation of number of parties among the states significantly differs from the variation of per capita real GSDP among the states. The disjoint significant variation of number of parties and per capita real GSDP among the states lend support to the possible absence of any relation between number of parties contesting election of 2014 and per capita real GSDP of states.

11. ANALYSIS OF RESULTS OF ECONOMETRIC MODELS

Bivariate and multiple regression models are important methods of econometric analysis. Discussion of results of 6 pairs of two factors ANOVA paves the way to consider the results of 7 seven regression models. Six step-wise regression models serve the objectives of (i) detecting the presence and location of serious multi-collinearity, if any; and (ii) Facilitating the rejecting of the result, which may not be conclusive due to its specificity to the given method or model of data analysis; and (ii) Idemtification of one or more independent variable (s) of multiple regression model which is redundant in the explanation of cange in the values of dependent variable.

11. Dependence Of Seats Won By Other Parties On Percentage Of Votes Received, Per Capita Real Sdp And Number Of Parties Contesting Election Of 2014

First regression model is a multiple regression model, which treats number of seats won by Other Parties as a function of (i) Percentage of Votes secured by Other Parties, (ii) Per Capita Real GSDP of states, and (iii) Number of parties contesting the Election from different states. These three variables are treated as pre-determined and exogenously given to the system from outside. In other words, values of these

variables are given and are already fixed. Theoretical underpinnings of these variables have already been discussed in the context of their pairings for two factors ANOVA. Ordinary Least Squares (OLS) are used for estimating the regression model. The above model is specified as under:

$$Y_{1j} = \alpha + \beta_1 X_{1j} + \beta_2 X_{2j} + \beta_3 X_{3j} + U_{1j}$$
 (1)

 Y_{1j} shows the seats won by other parties from states, X_{1j} , X_{2j} , and X_{3j} stand for percentage of votes obtained from state j, per capita real GSDP of state j, and number of parties which contested election from state j respectively. U_{1j} refers to stochastic error and j denotes j-th state. Subscript 1 attached to Y stands for econometric model 1. OLS estimate of function 1 are reported in table 7

Table 8
OLS Estimate of Regression Model-1

| Intercept | Beta 1 | Beta 2 | Beta 3 | t_0 | t_1 | t_2 | t 3 | R^2 | F | F* |
|-----------|----------------|--------------|----------------|--------------|--------------|-------------|--------------|-------------|----------|----------|
| -9.99793 | 0.145 79956 | 0.00 2247 | 1.1100 5188 | -1.79 988 | 2.415 821 | 2.08 223 | 1.167 031 | 0.44 653 | 8.336767 | 0.000328 |

Source: Author's Own Calculation

Table 8 reveals that

- 1. Regression model 1 moderately fits the data, since the coefficient of determination has a value of 0.4467; thus, the function 1 explains only about 45% of total variation of seats won by Other Parties among the states. But the coefficient of multiple correlation is highly significant at 0.00033 value of probability, which is lower than even 0.01 probability. It may thus be concluded that almost 100 out of 100 such samples drawn from similar populations are likely to furnish similar results.
- 2. Intercept, α, has an approximate value of 10, which is statistically significant at 0.08 probability. Significance of intercept at probability greater than 0.05 may be accepted in view of the modest explanatory power of the function. It implies that some variable, excluded in the specification, may also affect the seats won by Other Parties from some states.
- 3. Partial regression coefficients of percentage of votes secured by other parties and per capita GSDP of states are statistically significant at 0.05 probability level. Significance of the coefficient of per capita GSDP shows that this finding is a great deal different from the findings of Robert Barro and Rodrik who found only weak relation between democracy and economic growth.
- 4. Corresponding to one unit increase in the percentage of votes secured by Other Parties, number of seats won by these parties increases by only 0.15. Thus, the seats won by other parties are not very highly responsive to change in percentage of votes gained. However, an increase of 0.15% in percentage of votes may equal 100s of votes in absolute numbers. This may probably be accounted by the winning percentage of votes received by Other Parties does not differ significantly among the states.

- 5. But corresponding to one unit increase in the per capita real GSDP of a state, number of seats won by Other Parties increase by 0.22. Thus, the seats won by Other Parties have greater response to an increase of one unit in per capita real GSDP of states than the unit increase in percentage of votes polled. But one unit increase in real per capita SDP equals hundreds of rupees. This finding is in consonance of the finding of Barro and Rodrik, who analyzed the cross-section data of 100 and 90 countries respectively.
- 6. But the regression coefficient of number of parties is not significant. This may be explained by the possible significant relation between number of parties and percentage of votes secured, which has already been explained on *a priori* reasoning in the context of ANOVA. This postulation shall be examined by step wise regression that follows this.

The validity of model 1 is accepted provisionally on the empirical evidence furnished by the OLS estimate of the function. Final validity of the model depends on the result of test of multicollinearity.

11.2. Stepwise Regression Models

If the dropping of number of parties as an independent variable from the estimated multiple regression model 1 does not affect the explanatory power of the multiple regression model 2 with one less explanatory variable, then, it indicates that the number of parties does not contribute to the explanatory power of the model 1 in which the coefficient of number of parties contesting the election is statistically not significant.

Then, the non-significance of the coefficient of number of parties in model 1 is the reason for the dropping of this variable as an explanatory variable in the new regression function 2. Therefore, regression model 2 treats number of seats won by Other Parties as the function of percentage of votes secured by Other Parties and per capita real GSDP of states only. Model-2 excludes number of parties as the determinant of the dependent variable, seats won by Other Parties.

11.3. Seats Won By Other Parties As Function Of Percentage Of Votes And Per Capita Real Gsdp

$$Y_{2j} = \alpha + \beta_1 X_{1j} + \beta_2 X_{2j} + U_{2j}$$
 (2)

Obviously, model 2 excludes number of parties, X_{3j} as an explanatory variable. OLS Estimate of regression model 2 is shown in table 9.

Table 9

OLS Estimate of Seats Won As function percentage of votes secured by Other Parties and Per Capita Real DSDP of states

| Intercept | Beta 1 | Beta ₂ | t_0 | t_1 | t_2 | R^2 | F | F* |
|------------|----------|-------------------|----------|---------|----------|----------|----------|----------|
| -4.3131242 | 0.167273 | 0.002988 | -1.60653 | 2.89387 | 3.406889 | 0.422214 | 11.69192 | 0.000154 |

Source : Author's Own Calculations

Results reported in table 9 highlight that

- 1. Function 2 fits the data reasonably well. The coefficient of multiple correlation continues to remain statistically significant despite one explanatory variable being excluded from the function.
- 2. The explained proportion of this function is 42.221% of total variation of seats won by Other Parties which is reasonably good.
- 3. But the explanatory power of this function is approximately 3% lower than that of model 1. It means that Number of Parties as an explanatory variable contributed at least 3% of explanatory power to model 1. It is, therefore, inferred that number of parties is not infructous, or irrelevant as the determinant of number of seats won by Other Parties; *a priori* reasoning about the role of number of parties in the determination of number of seats won strengthens the case for inclusion or retention of number of parties as the explanatory factor in model 1.
- 4. Non-significance of the coefficient of number of parties in model 1 is probably accounted by its significant relation with percentage of votes secured by Other Parties.
- 5. Intercept is not-significant, It implies that the variables, including number of parties, excluded from the model 2, do not influence the number of seats won by Other Parties.
- 6. Coefficients of percentage of votes secured by Other Parties and Per Capita GSDP are statistically significant.
- 7. Results of this model lend credence to the results of model 1 and strengthen the premise that the coefficient of number of Parties has turned not significant in model 1 due muti-collinearity.

11.4. Seats Won By Other Parties As Function Of Percentage Of Votes And Number Of Parties

Results of model 2 suggests further evaluation of causal relation of seats won by Other Parties with percentage of votes secured by Other parties and number of parties in poll fray in 2014. Model 3 is specified as follows:

$$Y_{3j} = \alpha + \beta_1 X_{1j} + \beta_2 X_{3j} + U_{3j}$$
 (3)

OLS estimate of econometric model 3 is given in table 10.

Table 10
OLS Estimate of mode 3-Seats Won by Other Parties as Function of Percentage of Votes obtained by Other Parties and Number of Parties

| Intercept | Beta ₁ | Beta ₂ | t_0 | t_1 | t_2 | R^2 | F | F* |
|-----------|-------------------|-------------------|----------|----------|----------|----------|----------|---------|
| -14.2694 | 0.137457 | 2.276139 | -2.63057 | 2.172221 | 2.817285 | 0.369122 | 9.361469 | 0.00063 |

Source : Author's Own Calculations

An examination of results of model 3, reported in table 10, reveals that

- The function fits the data very well, since the coefficients of (1). Multiple correlation; (2). Intercept;
 (3). Percentage of Votes secured by Other Parties; and (4). Number of parties in election battle in 2014, are statistically significant.
- 2. The explained proportion of variation of seats won from different states is 36.912% of total variation of seats won among the states. The explanatory power of this function is lower than that of models 1 and 2. This means that neither Per Capita GSDP nor number of parties is an irrelevant factor of determination of seats won by Other Parties.
- 3. The statistical significance of the coefficients of percentage of votes and number of parties imply that the non-significance of number of parties in model 1 is explained by multicollinearity. Results of this function support the authenticity and validity of model 1.

11.5. Seats Won By Other Parties As Function Of Per Capita Real Gsdp And Number Of Parties

Model 4 treats seats won by Other Parties as the function of Per Capita Real GSDP and Number of Parties in electoral contest. The model is specified as follows

$$Y_{4j} = \alpha + \beta_2 X_{2j} + \beta_3 X_{3j} + U_{4j}$$
 (4)

OLS estimate of model 4 is reported in table 11.

Table 11
Regression Model 4 of seats won by Other Parties As Function of Number of Parties and Per Capita Real GSDP

| Intercept | Beta ₁ | Beta 2 | t_0 | t_1 | t_2 | R^2 | F | F* |
|-----------|-------------------|----------|----------|----------|----------|----------|----------|----------|
| -9.38993 | 1.810641 | 0.002074 | -1.57717 | 1.862923 | 1.795223 | 0.342332 | 8.328379 | 0.001225 |

Source : Author's Own Calculations

An examination of results, reported in table 11, reveals that

- 1. Regression model 4, which treats seats won by Other Parties as a function of number of parties and per capita real GSDP, fits the data well so far as the statistical significance of the coefficient of multiple correlation is concerned. But the function explains only 34.23% of total variation of seats won by Other Parties in parliamentary election of 2014. Thus, this function has the lowest explanatory power among the first four regression model.
- 2. The coefficients of number of parties and per capita real SDP are statistically significant only at 0.07 and 0,08 probability levels; these probabilities are greater than 0.05 probability at which the coefficients of other models are tested for significance. The fact that the coefficients of number of parties and per capita GSDP in models 2 and 3 are significant and model 2 excludes number of parties while model 3 excludes per capita GSDP as an explanatory variable, it may be inferred that the statistical non-significance of these coefficients at 0.05 probability in this function is accounted by multicollinear nature of these two variables. This result refutes our proposition that number of parties and percentage of votes received by Other Parties are significantly related.

3. Above discussion suggests that the non-significance of the coefficient of number of parties in model 1 is explained by multicollinearity. It is, therefore, reasonable to accept model 1 as valid.

However, for the removal of any lingering doubt about the correctness of the above inferences about model 1, regression models of seats won by Other Parties as a function of each of the three explanatory variables taken separately separately are examined.

11.6. Number Of Seats Won By Other Parties Is A Function Of Percentage Of Votes

Regression model 5 treats the seats won by Other Parties in 2014 as a function of percentage of votes received by Other Parties. The model is given hereunder.

$$Y_{5,i} = \alpha + \beta_1 X_1 + U_{5,i}$$
 (5)

OLS estimate of model 5 is given in table 12.

Table 12
OLS Estimate of Regression model 5: Seats Won by Other Parties Depend on Percentage of Votes

| Intercept | Beta ₁ | t_0 | t_1 | R^2 | F | F* |
|-----------|-------------------|----------|----------|----------|----------|----------|
| -0.85206 | 0.196211 | -0.29826 | 2.985353 | 0.212642 | 8.912335 | 0.005303 |

Source: Author's Own Calculations

Table 12 reveals that

- 1. The function fits the data well since the coefficients of correlation and percentage of votes polled by Other Parties are statistically significant.
- 2. Percentage of votes polled by Other Parties is found as the genuine determinant of number of seats won by Other Parties.
- 3. Relatively low explanatory power makes the function non-preferable despite the above results. But the percentage of votes cannot be excluded from model 1 either on theoretical or empirical counts.

11.7. SEATS WON BY OTHER PARTIES AS FUNCTION OF PER CAPITA REAL GSDP

Model 6 considers number of seats won by Other Parties to depend on Per Capita Real GSDP of states. Besides, social and political factors economic development is an extremely important function of modern democracies. Economic growth/development is a universal objective of all countries of the world, irrespective of the developed or developing status of their economies, socialist or capitalist system and democratic or despotic polity. As democracies strive to promote welfare of the people and people aspire for growth of their incomes, democracy and economic development have been found to be directly related (Friedman, Milton, 1995). It is this *a priori* reasoning and theoretical thrust that prompted the researcher to select per capita GSDP as an important determinant of electoral performance of politicians and political parties.

The function is outlined below:

$$Y_{6j} = \alpha + \beta_2 X_{j2} + U_{5j}$$
 (6)

OLS estimate of econometric model 6 is reported in table 13.

Table 13
Seats Won by Other Parties depend on Per capita Real GSDP

| Intercept | Beta ₂ | t ^p | t_2 | R^2 | F | F* |
|------------|-------------------|----------------|----------|----------|----------|----------|
| 0.99405554 | 0.003361 | 0.458344 | 3.502551 | 0.271006 | 12.26787 | 0.001346 |

Source: Author's Own Calculations

Table 13 shows that

- 1. Function 6 fits the data better than model 5, since the coefficients of correlation and per capita SDP are statistically significant and the function explains 27.% of total variation of seats won by other parties from different states. Thus, the explanatory power of the function is greater than that of model 5.
- 2. The results furnished by the function conform to the findings of such scholars as Barro, Virmani, Prakash and Gupta.
- 3. Per capita SDP influences seats won much more than the percentage of votes received by Other parties. Thus, per capita GSDP cannot be dropped from model 1 despite its collinear nature with number of parties in election.

11.8. Number Of Seats Won By Other Parties Andnumber Of Parties

The function considers number of political parties in electoral battle as the sole determinant of the number of seats won by Other Parties in 2014. The rationale of inclusion of number of parties as an important determinant of election results has already been discussed. Therefore, it need not be elaborated again. The model is specified as follows:

$$Y_{67} = \alpha + \beta_3 X_{j3} + U_{7j} \tag{7}$$

Results of OLS estimate of function 7 are contained in table 14.

Table 14
OLS estimate of model 7: Seats Won by Other Parties As Function of Number of Parties

| Intercept | Beta ₃ | t_0 | t_3 | R^2 | F | F* |
|-----------|-------------------|---------|----------|----------|----------|---------|
| -13.3822 | 2.85452 | -2.3454 | 3.547696 | 0.276096 | 12.58615 | 0.00119 |

Source: Author's Own Calculations

Results of model 7 show that

- 1. This model fits the data reasonably well; coefficients of correlation and number of parties are statistically significant. The function explains 27.61% of total variation in number of seats won by Other Parties from different states. This percentage of explained variation of seats equal to the variation explained by function 6 and greater than that explained by function 6. Therefore, number of parties is as important determinant of seats won by Other Parties as percentage of votes received and per capita GSDP.
- 2. Results of models 5, 6 and 7 conclusively show that the non-significance of the coefficient of number of parties in model 1 in the presence of per capita GSDP and/or percentage of votes received by other parties is explained by multicollinearity. Therefore, model 1 is accepted as valid. This validates the specification of model 1 and theory underlying it.

12. FINDINGS AND CONCLUSIONS

Findings and conclusions are arranged in two groups: 1. Findings and Conclusions derived from descriptive statistics; and 2, Findings and Conclusions derived from econometric models.

13. FINDINGS AND CONCLUSIONS BASED ON DESCRIPTIVE STATISTICS

Following are the main findings from descriptive statistics:

- 1. Number of seats won by 'Other Parties' is not normally distributed among the states, while the distribution of percentages of votes polled is almost normally distributed among the states from which Other Parties contested the election of 2014.
- 2. Percentages of votes polled by other parties are almost normally distributed among the states from which they contested the elections; but the distribution of seats won by other parties is not normal, it is positively skewed and seats won are concentrated in few states.
- 3. Number of parties which contested 2014 parliamentary election is normally distributed among the states
- 4. Average number of seats won by 'Other Parties' and average number of parties in election fray are almost equal. It implies an average of one seat per state per party.
- 5. Results of descriptive statistics confirm the inference that Other Parties are not national and their influence is confined to specific states. Tis runs counter to the fact that such parties as Communist Party of India (Marxist), BSP and NCP as are recognized as national parties by election commission do not satisfy the criteria prescribed by election commission any more. Election of state assemblies of five states-Punjab, Uttrakhand, Goa, U.P., and Manipur have further furnished evidence in support of this thesis.
- 6. Distribution of per capita real GSDP among the states diverges from normal distribution. It is highly skewed and concentrated. States with high per capita real GSDP are concentrated in the narrow space around the mode.
- 7. Descriptive statistics of per capita real GSDP shows that the states of India are sharply divided into the developed and under developed states. Economic development and growth gains are spatially unevenly distributed among the states.

8. Illiteracy, low level of health, high infant mortality, blind faith and easy sway to caste, religion and other narrow beliefs and exploitation of the same by politicians and political parties are associated with under-development of states where other parties generally flourish, especially in assembly and local self-government elections.

14. FINDINGS AND CONCLUSIONS BASED ON ECONOMETRIC MODELS

Following are the main findings derived from 7 econometric models:

- 1. Each of the three pre-determined variables-Percentage of votes secured by Other Parties, per capita real GSDP of states and number of parties which contested election of 2014 individually affects the number of seats won by Other Parties. It shows that the choice of independent variables and specification of the form of the selected econometric models are empirically valid.
- 2. An interesting finding is that per capita real GSDP among the three pre-determined variables exercises greatest influence on seats won by Other Parties thanthe percentage of votes polled. This finding is in consonance with the findings of Arvind Virmani, Barro and, Prakash-Gupta that economic development and democratic elections are positively related.
- 3. Percentage of votes jointly with per capita real SDP, and jointly with number of parties significantly affects the number of seats won by Other Parties in 2014 parliamentary election.
- 4. But the joint influence of Per Capita GSDP and Number of Parties is found to be diluted by multicollinearity. Multicollinearity of these variables also affects econometric model 1.
- 5. Econometric model 1 is accepted as valid despite the statistical non-significance of the coefficient of number of parties, since the non-significance of the coefficient is accounted by multicollinearity. The acceptance of the validity of the model is also based on theoretical underpinnings of model 1.

It is noteworthy that Kendall and Stuart postulate that 'econometrics was developed for the quantification and verification of economic theory. Hence, statistics or econometrics cannot and should not be the substitute of theory. This is what explains our approval and acceptance of the validity of model 1.

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