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## **Analyzing 'Angoor': A Cinematic Adaptation of Shakespeare's *Comedy of Errors***

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### **Abstract**

Adaptations of popular or classic literary works into films has been a common practice in cinematic world in an effort to enhance its reach as well as popular appeal amongst the masses. The present paper attempts to analyze Gulzar's adaptation of Shakespeare's famous drama *Comedy of Errors* into a comedy film called *Angoor* in three particular areas- firstly in the light of similarities and differences in film and literature; secondly in the light of changes demanded of a new medium, and finally in the light of what it means to be 'faithful' to a work of literature.

**Keywords:** Adaptation, Comedy of Error, Cinematography, Indian cinema

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Adaptations of popular or classic literary works into films has been a common practice in cinematic world in an effort to enhance its reach as well as popular appeal amongst the masses, since visual images directly stimulate the perceptions of the audience and hence tend to prove more effective. John Harrington, in his book, *Film And/ As Literature* says that nearly two third of all the films ever made have been adopted from various literary forms such as novels, drama, short stories and many of them have been adopted in multiple languages, settings, formats and versions. Literary works, on the other hand, offer more freedom to the readers to engage with the plot and various characters without any constraints of time or word limit. The need and the significance for the cinematic version to remain fully or partially faithful or authentic to the original work is also a point of much debate.

The present paper attempts to analyze Gulzar's adaptation of Shakespeare's famous drama *Comedy of Errors* into a comedy film called *Angoor* in three particular areas- firstly in the light of similarities and differences in film and literature; secondly in the light of changes demanded of a new medium, and finally in the light of what it means to be 'faithful' to a work of literature. In other words, it would attempt to explore whether the filmmaker, being an independent artist and as good as 'a new author in his own right' almost 'rewrites' the whole work with his own perspective and tools of cinematography.

It is interesting to mention that Gulzar, before adapting Shakespeare's *Comedy of Errors* into a script for *Angoor* in 1982, had earlier, in 1968, penned down a script based on the above play adapted for a film called *Do Dooni Char* by Debu Sen, which was a flop at the box office. This film adaptation was a sequence to a play written by Gulzar in the 1960s, drawing plot from *Comedy of Errors*, which after a few productions, was then adopted for cinema and later went on to become Bollywood's unforgettable comedy, *Angoor*, which incidentally happens to be the sixth cinematic adaptation of Shakespeare's above-mentioned play. Shakespeare was introduced to Indian cinema in early 1960s, with the Bengali film *Bhrantibilas* in 1963, which was based on the first Indian adaptation of *Comedy of Errors* by the same name by Ishawar Chandra Vidyasagar in 1869, followed by *Do Dooni Char* and other film versions.

Not surprisingly, *Comedy of Errors* retains its proud place in Indian cinema as one of the most adapted Shakespearean plays in recent years followed by *Hamlet*. This reflects the close resemblance of the play as a part of popular culture in India based on the saga of mistaken identities, followed by Vishal Bhardwaj's recent engagement with Shakespearean drama and adaptation into films in the present generation. Gulzar deserves full credit for daring to remake in 1980s a film on the same play and theme which in 1960s had been a complete flop, and a film on which no producer was ready to put his money till a newcomer producer, Jai Singh, stepped in since he happened to be in love with Shakespearean drama.

Since the play was originally written for stage, Gulzar of course had to adapt his art of story writing to Indian taste and sensibilities so as to make his script innovative and appealing to the audience. Interestingly, the cult classic film, *Angoor* last year made its stage debut by none other than Gulzar's own friend Salim Arif by the name *Chakkar Chalaaye Ghanchakkar*. The veteran writer and director, who had not given his permission for a stage remake of his film earlier, was persuaded by his long-time friend and collaborator Salim Arif that if the play was initially written for theatre, it should certainly be possible to recreate it on the stage.'

So, this kind of varied experimentation with the play and writing and re-writing it to suit to various mediums and audience, is another interesting aspect that needs to be mentioned. The original Shakespeare play, its adaptation into a film *Angoor* and its stage adaptation *Chakkar Chalaaye Ghanchakkar*, are all centered around two pairs of identical twins separated at birth and causing utter confusion with their chance meeting in adulthood, yet the settings, situations and elements of comedy and surprises are different. Gulzar has tightened his original film script for the play and has added some new elements, though some of the dialogues from the film too have been retained. In director Salim Arif's own words: "The biggest challenge for me is to ensure that people forget the film within five minutes of watching the play. I want to hold on to the playfulness and carnival-like chaos of *Angoor*, but give them something new."

As the film acknowledges at the very beginning that several writers in the past have penned down stories revolving around twins but Shakespeare is the only one to have written a plot based on four twins- that is, two identical set of twins, related to each other in the form of two identical masters and two servants. This uniqueness is further established in the opening conversation between the mother and father of the identical twins. The mother, on hearing one child crying for milk and the other keeping mum, expresses that she had heard that the twins do everything at the same time but here, it is just the opposite and the father is quick in replying that such was the case in Corsican Brothers and here it is different because, "These are the children of Comedy of Errors."

What makes the identical 'error' extremely interesting and comical is that even the mother who gave birth to the twins and later, the wife, is not able to identify the 'error' and is as much confused by the duplicate identities as any other character in the film ranging from the servants, the goldsmith, the taxi driver or the police inspector. As a matter of fact, this delusion of identities is not merely related to the two sets of identical characters; the film expands this delusion to extend into every other area of life as well whether it is material, psychological or fictional, thereby suggesting that, in an era dominated by 'Simulacra and Simulation'- it has become extremely difficult to differentiate between the real and the unreal or hyper-real. (Jean Baudrillard 1981) Baudrillard asserts that "simulacrum is never

that which conceals the truth-it is the truth which conceals that there is none". This could also be a similar situation as in Freud's psychoanalytic theory of delusion, where Freud expresses that illusions need not necessarily be false. The important thing in delusion is not the nurturing of a false belief but the firm conviction of the person that his/her belief is true or real. And in case of psychotic disorders, it further gets extended to the question as to whose reality is more real- that of a sane or normal person or a person who is considered abnormal or who is under some kind of delusion. Freud, in his concept of projection, further explains how meaning tends to be reversed under the impetus of various kinds of stress and strains and how this reversal gives rise to delusional thinking.

The second Ashok, one who is unmarried, under the strong impact of detective novels, looks at every individual and every situation as spying against him and as a part of a larger gang up meant to rob him of his one lac cash amount that he has brought along with him on his arrival to an alien city for expanding his business in grapes. So much so that he locks up the money inside the cupboard and keeps the empty bag lying nearby so that the apparent 'gang' can be happy stealing the bag, while the money would stay with him. He is so paranoid about the assault on his cash amount that even while hiring a taxi for the hotel where he is going to stay, he would not want to disclose to the driver as to where he is going, for fear that the driver too could be a part of the gang who is spying on him to loot his money. And when the driver inquires that where should he take him if he does not tell the name of the place, he says that he is going to the Imperial hotel just to meet somebody and that he would not stay there. He includes every individual- male or female, whom he encounters in the city, as part of a gang, be it master, servant, policeman, taxi driver, employer or an employee. He orders Bahadur, his servant, not to leave the room of the hotel and not to open the door to anyone else except him when he knocks thrice with his fingernails and sings to the tune of 'pritam aan milo.' Bahadur too expresses his agreement to the master's opinion by saying that he does not want to venture out 'in this city of thugs.' The employee working with the goldsmith Chhedilal, takes a dig at it when he comments that the bejeweled necklace that Ashok has ordered for his wife would be so dazzling that once it is ready and worn by his wife, he would not be able to recognize his own wife and that it would seem to Ashok as if "he has hijacked someone else's wife." This pervading sense of delusion and utter confusion between real and unreal reaches its climax at the end when the first Ashok, after union with his twin brother, goes to meet his mother and takes Kashi bai, the old maid servant as his mother and touches her feet. This is expressed in Sudha, Ashok's wife's fear too when she hopes that let it not be two mothers this time because she has all along been very scared of duplicates in this house. In fact, right in the beginning of the film, while playing cards, when Sudha, gets two jacks and two kings in a game, she confesses that she is fed up of these duplicates. So, in a way, the reality of the game gets extended to the reality of life.

Looked at from the point of view of a social comedy, the error in recognition of the characters is accentuated by the utter chaos and confusion in the situations. Second Ashok's servant, Bahadur two, is always in a world of delusion through constant consumption of 'bhaang' (cannabis) and hence it is very difficult to differentiate if he is speaking the truth or partial truth or utter lies. When both of them land up in a situation of chaos in Sudha's house, one mistaken as Sudha's husband and the other as house maid Prema's husband, it is Bahadur's idea to mix dope in the fries and trap the two women under its impact. But the fact that he is not able to resist himself too from eating the doped fries, in spite of repeated warnings from his alter ego, his own heart, not to do so, speaks for itself and reasserts that it has gone beyond control to resist the temptations of being doped and duped, however harmful or harmless a situation it could be. And this delusion in situation reaches its peak when twin Bahadur, after being locked into the house, pretends to be a dog and is able to scare away the first Ashok and Bahadur from entering into their own house through barking like a dog. However, there is an anti climax to this delusion at the end, when after the union of lost brothers, one Ashok enquires from the other if he has a mole on the right shoulder and when the other refuses it, the first one says that he does not have it other and that means they are brothers. This dig related to the absence of any kind of physical identification on the bodies of either of the two brothers is a deliberate attempt to subvert the familiar notions of comedy where twins often exhibited some similar physical marks on their bodies.

In another situation of utter confusion, as second Ashok goes out to look for a place for business pursuits, he misunderstands first Bahadur as the second one, whom he had locked up in a hotel and Bahadur too takes him up as the same boss who is married and who does not smoke cigarettes. Neither of them is able to recognize each other's real identity and when Ashok denies himself being married or shouts at any reference related to a wife or sister-in-law or even that of Prema- Bahadur's wife, Bahadur feels that his 'sahib' has gone mad and that his 'Sudha didi'- Ashok sahib's wife, is doomed now. He not only tells it to Sudha and Tanu, Ashok's sister-in-law staying with them but spreads the word everywhere including at the jewelers and the Police station. The Police inspector, symbolizing an important branch of administrative system responsible for maintaining law and order, himself becomes an accomplice into the whole disorder when he also mistakes second Ashok as first one and forces him to go back to his wife or else, he would lock him up in the police station. And as Tanu, Ashok's sister-in-law claims that it is Sudha's demand for a necklace that has created the whole confusion since Ashok leaves the house in anger because of his wife's constant pestering for a necklace and vows not to return till the necklace is ready. And the necklace once ready, is again delivered to a mistaken identity, the other Ashok, who is unmarried and who is least interested in buying or keeping it since he again takes it as a part of a conspiracy to trap him into usurping his money. The fact that the necklace is



brought back to Ashok's wife by none other than the same courtesan Alka who is always under suspicion and envy of Sudha, is an assertion of some hope and order in an otherwise utterly suspicious and disordered situation.

The film, in an attempt to adapt itself to modern Indian middle class setting and characterization, tries to depict an overall atmosphere where people in general are caught up in a situation of suspicion, envy, uncertainty, escape from harsh realities of materialism and commercialization, yet there is a ray of hope not only in middle class's genuine acts like that of adopting poor children who are sometimes abandoned due to various reasons but also in servant's selfless service to the master or in a courtesan's faithfulness and loyalty to human values as exhibited by Alka. The opening scene where the poor 'Tangewala' (coachman) informs Ashok's father that an unfortunate lady has left her twins at the steps of a temple and that a crowd has collected there but no one is ready to accept them because they are worried about children's caste and that he has brought them over since he could not bear to leave them there, is a typical depiction of Indian sensibilities. Seth Raghuraj Tilak's heart is at once full of compassion against this blatant injustice and death of humanity and he not only readily agrees to adopt them along with his own twins, but without caring a fig for their caste or colour, finds them brave and beautiful too, with 'nice chunky eyes.' It is this generosity of human heart that has always been a part of Indian popular culture and value system and the film adaptation, while being a middle class social comedy in its most basic sense, simultaneously, brings out these human shades of kindness and compassion through small acts of generosity, be it in the form of goldsmith's employee Mansoor or in the large heartedness of Prema, the maid servant and above all, in the magnanimity of both the Bahadurs, who serve their masters in a most faithful and kind manner, ignoring occasional beating or humiliations. This strong assimilating bond between servant and master has not only been a feature of Indian middle-class families but almost a defining feature of Indian cinema too and many Bollywood blockbusters (Bobby, Zanjeer, Sharabi, Abhiman, to name a few) have thrived on this unbreakable bonding between hero/ heroine and the caretaker servant or maid.

Indian sensibility is also reflected in portrayal of family life and inter-personal relationships and in Ashok's beautiful relationship with his sister-in-law, Sudha's sister-Tanu. As the title of the film indicates, the grapes are bitter as well as sweet in taste and it depends on the situation in which one is caught up. The relationship between husband and wife, in the form of Ashok and Sudha is sweet and sour at the same time and though Sudha is envious of her husband's relations with other women and is demanding too, yet she loves Ashok to the extent that she will not have food if Ashok has gone hungry and forgets all her demands and envy when Ashok is resentful. The relationship between husband and sister-in-law in Indian culture and psyche, however, is often taken to be sweet and playful and as depicted

in the film, borders on teasing, jest and banter. Tanu, towards the end of the movie, when all mistaken identities are solved, playfully wonders why his brother-in-law kissed her the previous night.

In the light of the above arguments, it can be said that the film adaptation of *Comedy of Errors* as *Angoor*, is by and large faithful to the original text in scenes and situations related to social comedy except that it has been re-contextualized and shifted to the locale of urban India of the early decade of 80s and certain scenes and subplots have been omitted or replaced to suit it to the Indian middle-class sensibilities. The opening Egeon-Amelia framing story has been 're-appropriated' with a more Indian like story of a well to do businessman Raghuraj Tilak, living in Dinkapur, going out for a holiday with his wife and twin infants, when, on the way to reaching a ship, the couple is caught up in a situation of having to adopt another set of abandoned twin infants and the family getting separated due to a shipwreck, with one set of master and servant left with the mother and the other son and abandoned child with the father. Ashok R Tilak, who lived with his widowed mother and a servant, plans, along with his servant Bahadur, to travel to another city for business purposes to buy several acres of land for grape trees.

Ashok, already under lot of strain and fear of being robbed in a strange city of his huge cash amount meant to buy grape bearing trees, is suddenly taken aback when almost every individual in the new town seems to recognize them as someone already a part of the town, beginning from the station master at the station where they got down, to all other individuals they encounter in their one day stay. This co-incidental resemblance to another pair of twins already staying in the town is revealed only at the end of the film, after they have gone through all kinds of trials, tribulations, and confusions, including being locked up in a stranger's house and women of the house mistaking them for their husbands, the situational possibility of marital impropriety and finally at the end, being caught up by the police for stealing a necklace, which strengthens their pervading fear, rather a conviction of being hounded up in a new town by a gang of robbers, who somehow have come to know about their plans to buy the land and who now want to loot their money.

The key plot related to the demand for a necklace and all kinds of bitter as well as hilarious situations arising out of ordering a bejeweled necklace and getting it ready only by early next morning when all kind of harm has already been done, has been kept intact. The pinch subplot, however, has been removed and the romance between Antipholus of Syracuse and Luciana, Adriana's sister has again been played down to adapt to Indian culture and sensibilities in the sense of restricting it within the permissible moral limits and focusing more on the comical situation rather than mistaken brother-in-law, that is, second Ashok, taking advantage of the whole situation to seduce his supposed sister-in-law Tanu, who takes him to be his real brother-in-law. The basic spirit of the play has also been kept intact

in the sense that it is the confusing situations and not the characters themselves who try to dupe or pretend or disguise in order to take advantage of the unforeseen situations arising out of the 'comedy of errors.' The film adaptation, in an attempt to be as close to Indian middle-class psyche and scenario as possible, does away with all kinds of elitist or larger than life perceptions, situations or overtones that might have associated with Shakespearean drama and that could be another significant reason for its popularity amongst the masses.

The various scenes and situations being so close to Indian culture and its everyday manifestation, audience is able to relate to them with ease and can even take pride in being a part of it in some way or the other. The closing scene illustrates it most beautifully when, mistaken identities having been resolved, and married Ashok having come to know about last night's confusion, asks his wife Sudha: "Did anything happen last night?" and Sudha replies: "I was just saved. What if something would have happened?" This is a typical demonstration of particularly Indian middle class morality where a strange man compelled by the situation to spend a night with a woman who takes him to be his husband, and another woman who mistakes him to be her brother-in-law, does not violate the norms either with his supposed wife or supposed sister-in-law and no such thing 'happens' that could lead to any kind of marital problems or that could prove to be a source of any kind of guilt in the heart or consciousness of the two women. The relationship between married Ashok and Alka, the courtesan, has also been presented in a manner which could appear humanly compassionate as well as palatable to the audience. Though Sudha is constantly suspicious as well as envious of her husband's relationship with Alka, yet Alka has been represented in a favourable light where she is not only aware of her limits but also sympathetic and understanding towards Sudha's unfounded suspicions and not taking them to heart. She is rather defensive of Sudha's needs as a wife and scolds Ashok for not taking enough care of Sudha's desires and sentiments. The way she takes away the necklace from unmarried Ashok and hands it over to Sudha, dispelling all doubts and suspicions, is a human depiction of inter-personal man-woman relationship. It goes to the credit of the director, who also happens to be the script-writer of the film, not to have resorted to any kind of cheap commercial motives or for that matter, any deceit, treachery or selfishness while depicting various nuances of human relationships in comical situations.

The film, seen and analyzed in the light of two broad kinds of adaptations of Shakespeare that have hitherto been popular in India, related to free adaptation mode of Parsi theatre and a more faithful and academic mode of Bengal theatre, tends to fall in between the two in the sense that it is largely faithful to the original play and duly acknowledges its debt in the beginning as well as at the end of the movie, yet it takes enough liberty in adapting it to Indian setting, characterization, culture and humanity, even if this entails making a few small changes in the plot and characters in the process. Yet there is no radical departure

from the original play and the film is a delight in the 'display of virtuosity in plot construction and in witty self-reflexiveness.' The material conditions of production in Parsi theatre, its hybrid art and stylistic nuances are reflected in successful representations of Bollywood films as well as Shakespearean drama.

The film, though owes its debt to foreign Shakespearean plot, which itself was borrowed from earlier Roman and Greek sources, yet, is a powerful reflection of Indian popular culture and emerging value system and deliberately abstains itself from any kind of elitist tone, style or other associations. The film, being a popular mass medium, chooses, what Northrop Frye calls "transcultural" and 'popular' Shakespeare, rather than going for academic and elite version and that accounts for immense popularity of the film. In its own humble way, this popular Shakespearean film, participates as much in the process of, what I.A. Richards calls, "interanimation of words" (Richards 1936) as may be some more sophisticated versions like recent adaptations by Vishal Bhardwaj. In the process, it also tends to make use of some other Shakespearean motives like what is there in a name and a rose would smell as sweet by any other name. When Sudha tells her husband Ashok that initially her father had confused his name with that of Bahadur and vice-versa, Ashok replies that in that case she would have married 'that ass'- meaning Bahadur. Bahadur, however, is quick to answer that name does not change a man's personality and that she would have still married you irrespective of any name, even if his name was 'Chirkoot kumar.' The same name given to both the twins also reflects this idea that identical persons cannot be differentiated by different names, since it is not the names that matter, but the defining traits.

In the contemporary Indian context, this 'comedy of errors' related to mistaken identities could be extended to mistaken political, religious, cultural or even mistaken gender identities and like that of 'angoors' (grapes), the experience could be sweet, bitter or bitter-sweet and sweet-bitter as well. As told by the unmarried servant to his master- unmarried Ashok, towards the end of the film, when they are caught up by the police, that this city is very dicey and "Let two of us stay hanging on the vine itself, there is no grape that is sweet in this town." (ham dono ko lage rahne do belon pe; is shahar me koi angoor meetha nahi hota.) So, the film is successfully able to depict the bitter truths of life related to love, loyalty, morality and virtuosity in a light hearted comical vein, retaining large part of the wit, humour and originality of the source.

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## **Burnout and Self-Efficacy Among Sports Persons: A Comparative Study**

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### **Abstract**

A sportsman is a person who participates in a sport, but the phrase also refers to someone who plays sports with fairness and respect for the opposing player or team. The contentment with life is contingent upon both external and internal factors. Despite all the external determinants, sportspersons aspire for internal solace which appears to be the major source of high performance which ultimately lies upon their intrinsic psychological strengths. Burnout is characterized by the three elements of exhaustion, cynicism, and inefficacy and it is a continuous reaction to severe psychological and interpersonal stressors at work. The objective of this study is to investigate the comparison between athletes' burnout and Self-efficacy in both males and females. A purposive sample of 110 sports persons, both male and female has been selected.

For measuring Burnout, 'Maslach Burnout Inventory' (MBI) and for "Self-efficacy General self- efficacy Scale' (Schwarzer and Jerusalem, 1995; Weber et al., 2013) were administered. Data is analyzed by using T-test. Results eloquently illustrated the gender disparities that were relevant to both measures. Results have been discussed in detail in the research paper.

**Keywords:** Self-efficacy, Burnout, Cynicism, Sports person

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## Introduction

Sports are becoming more popular, and the level of competition is rising exponentially. Some athletes turn to sports as a career, putting themselves through physical, mental, and spiritual strain to pursue ever-higher goals. Sports people's tendency to burn out may be influenced by this strain. A person who participates in sports is referred to as a sportsperson, sportsman, or sportswoman. It could refer to a person who is well renowned for advocating sports or athletic pursuits. A person who is engaged in or trained to specialize in a sport requiring physical strength, speed, or endurance is referred to as a sportsperson. A sportsman is a person who participates in a sport, but the phrase also refers to someone who plays sports with fairness and respect for the opposing player or team. When a sportsperson plays any game or participates in any competitive event, he assesses his ability or potential in his mind and this belief is one's self-efficacy.

Self-efficacy is the reliance that one can carry out a task or reach a desired outcome. It is the foremost factor in the development of burnout in athletes, as it can affect their ability to cope with the demands of their sport and the challenges they face. One of the fundamental ideas at the core of "Albert Bandura's Social Learning Theory" is self-efficacy.

Athletes who have high levels of self-efficacy are more likely to hold out in the face of setbacks and challenges and are less likely to experience burnout. On the other hand, athletes who have low levels of self-efficacy may be at risk and vulnerable to burnout, as they may lack the confidence and motivation to continue striving for success.

Self-efficacy can be influenced by a number of factors, including an athlete's past experiences, the support and encouragement they receive from coaches and teammates, and their overall mental and physical health. It is important for sportspeople of all genders to work on building their self-efficacy in order to prevent burnout and maintain their mental and physical well-being. This can include setting realistic goals, seeking out supportive relationships, and taking care of their physical and mental health. Like drive, self-efficacy is regarded as one of the key elements influencing athletic success.

According to Bandura's self-efficacy theory, Self-efficacy is a powerful component and way for people to cope with trauma. It is the key parameter in a person's self-system. The sense of one's own self-efficacy is considered to be one of the major factors affecting sports achievement.

People's perceptions about their potential to succeed and reach a specific performance level are known as self-efficacy (Bandura 1977). "Self-efficacy perception" alters the feelings and attitudes that motivate people to work hard, keep them from surrendering, help them get over short setbacks, and give them power over life's circumstances so they

can accomplish their goals. (Gencturk and Memis, 2010).

The results via the appropriate literature support Bandura's (1986) observations show that when faced with a challenge, a person with a high self-efficacy perception puts out more effort to achieve a goal, is robust when faced with challenges, and is tenacious (Kiremit & Gokler, 2010).

Self-efficacy beliefs have a significant impact on people's success levels, emotional responses, and opinion types. People with low self-efficacy belief believe that the jobs they will accomplish are even worse in reality, whilst those with strong self-efficacy belief might be more conducive and effective when presented with highly challenging tasks. This kind of viewpoint limits one's perspective on problem solutions in addition to raising worry and stress levels. Self-efficacy has been found to be a close association with the happiness and well-being of people. (Singh and Singh, 2015; Nara, 2017).

Skaalvik et al. (2008) suggest that self-efficacy and levels of burnout are significantly correlated. Taekwondo athletes may not experience burnout in terms of depersonalization and emotional tiredness because they feel at ease in their teams, have enough support, feel safe, behave civilly, and work restfully in a stress-free setting. (Cimen 2007) The athlete's sense of self-efficacy has an impact on how well they perform in sports. Surgevil (2006) also revealed that the ability to see one's own self-efficacy as being higher is crucial for overcoming burnout. Self-efficacy in controlling unpleasant emotions at work was substantially connected with emotional stability and job burnout, according to Alessandri et. al. There may be some overlap between burnout in the workplace and burnout in athletes. (Singh, Hooda and Gautam, 2014; Nara, 2013).

A psychological condition known as burnout is characterized by emotional tiredness, pessimism, and a decreased sense of personal accomplishment. (Schaufeli & Buunk, 2003; R. E. Smith, 1986). The majority of athletes greatly enjoy participating in sports. Regrettably, excessive demands may occasionally cause burnout as a result of continual stress. (Maslach & Leiter, 1997). Pertaining to one interpretation, burnout "erosion of the human soul." dedication and engagement gradually turn into the reverse when somebody is burned out, namely an absence of dedication and truancy (Schaufeli & Enzmann, 1998). Burnout entails detrimental psychological and physical effects. When someone gets hammered out, they frequently retreat from acquaintances and co-workers, feeling hopeless and unmotivated. (Schaufeli & Enzmann, 1998). According to Maslach et al. (2001), Burnout is a sustained reaction to ongoing psychological and behavioural pressures at work. Burnout is caused by an excessive amount of training and stress paired with insufficient recovery. There are numerous on and off-field parameters, such as physical, travel, time, and intellectual ones, that can cause stress throughout training., and societal obligations, and



withdrawal from the activity, are all associated with burnout.

Burnout is a chronic, unfavourable state of mind that, in "normal" people, is brought on by work. It is primarily characterized by exertion, but it can also include hardship, a sense of diminished attainment, a loss of enthusiasm, and the emergence of detrimental perceptions and actions at work (Schaufeli and Enzmann 1998). This psychological disorder creeps up on a person gradually but goes undetected for a very long time (Nara, 2013). It is the outcome of a mismatch in the workplace between intention and actuality. Because the illness is often accompanied by ineffective coping mechanisms, burnout frequently becomes conscience. Athlete burnout has been the subject of numerous descriptions and explanations. R. E. Smith's (1986) "Cognitive-Affective Stress Model, Silva's (1990) Negative Training Stress Response Model", Coakley's (1992) "Unidimensional Identity Development and External Control Model", and "Schmidt and Stein's (1991) and Raedeke's (1997)" "Commitment Model" states as "Gender has no relation of self-efficacy and burnout in sports person". According to this viewpoint, burnout has a good or bad impact on the psychological and physiological status of athletes in sports situations. Because of this, it is crucial to understand the relationship between self-efficacy and burnout. Athletes who experience burnout suffer grave consequences that are a major worry for competitive sports in general. Burnout is more likely to happen as an athlete becomes more driven and committed to working hard during training and succeeding as an athlete. The signs of exhaustion in athletes as well as the risk factors should indeed be understood by coaches and medical professionals.

Sports burnout can occur for a variety of causes. It is easier to divide it into internal and external components, which incorporate physical exhaustion, unreasonable time constraints, and occasionally even injuries. Internal reasons include rivalry, unreasonable demands, or a decline in passion for the practice.

Alcohol consumption is the third-largest factor for disease and disability. Mortality resulting from alcohol consumption is much higher than some of the most serious diseases such as diabetes, tuberculosis, and HIV/AIDS (WHO, 2018). The rural population is more vulnerable to the harmful effects of alcohol consumption than the urban. There is greater normalization and acceptance of alcohol use in rural areas and even alcoholism is not considered a disease (NIMHANS, 2012). Consumption of unrecorded alcohol is also quite high in rural areas (Benegal et al., 2003). This shows that alcohol abuse or the problems related to alcohol consumption are serious and with time the consumption of alcohol is increasing especially among youth. Therefore, there is a need for taking the issue of alcohol consumption in earnest.

## **Review of literature**

Kocak (2019) demonstrated that those who have higher levels of self-efficacy are associated with less athlete burnout than low ones. And also they found self-efficacy and burnout in sports persons irrespective of gender. Burnout levels are elevated as participants' age declines. Vallarino et.al (2022) investigate that no gender- or sport-related inequalities that are particularly noticeable exist.

Marwat et. al (2021) revealed that the level of self-efficacy varies significantly between male and female athletes. Overall findings indicated that the majority of athletes believed that self-efficacy benefited their success in sports. Athletes are motivated by their own efficacy and expectations, and they become more conscious of how their perceptions of and beliefs in their own abilities affect their performance in sports.

Previous research on gender and self-efficacy in sports has yielded mixed results. Depending on specific studies, Andros athletes tend to have higher levels of self-efficacy than female athletes (Jones & Hanton, 2005), while others have found no significant differences between genders (Gould et al., 2002). It is possible that these discrepancies may be due to differences in the samples or measures used across studies.

There is also limited research on the relationship between gender and burnout in sports. One study found that male athletes reported higher levels of burnout than female athletes (Skaalvik & Skaalvik, 2007), while another found no significant differences between genders (Gould et al., 2002). Again, these inconsistent findings may be due to the use of different samples and measures. According to studies on self-efficacy in sports (Haney and Long, 1995; Stajkovic and Luthans, 1998). The poor self-efficacy is negatively correlated with task-related performance. Incompetency can also lead to a loss of focus, which can result in more errors, slower responses, increased tension, and increased burnout (Guillén and Feltz, 2011).

Overall, the existing research on gender and self-efficacy and burnout in sports is inconclusive and there is a need for further investigation. This study aims to contribute to the literature by examining these relationships in a more diverse sample of athletes. Burnout in athletics is a psychological and physiological phenomenon. According to Eades, it appears in reaction to the athlete's prolonged stress brought on by training and competition. It results in mental and physical exhaustion, a lack of empathy for other people, a feeling of exclusion from society, a decline in athletic performance and success, a loss of the personal significance of sport, numbness, role sophistication, and role conflicts. It might lead to quitting the activity. Self-efficacy and burnout are prime and salient psychological concepts in the field of sports psychology. An individual's self-efficacy is defined as confidence in their capacity to perform well under particular conditions, while burnout is characterized by feelings of

energy depletion, reduced accomplishment, and increased negativity related to one's work (Maslach, Schaufeli, & Leiter, 2001). Research has shown that both self-efficacy and burnout have significant impacts on an athlete's performance and well-being. (Gould, Dieffenbach, & Moffett, 2002).

One factor that may influence an athlete's self-efficacy and burnout is their gender. Gender is a socially constructed aspect of identity that is often associated with certain expectations and stereotypes (West & Zimmerman, 1987). Self-efficacy can increase trust in their capacity to execute their roles. Previous research has suggested that there may be gender differences in self-efficacy and burnout in sports (Jones & Hanton, 2005), but the relationship between these variables and gender is not well understood. As a result, the goal of this research was to look into the link that exists between gender, self-efficacy, and burnout in sports. How confident one feels about participating in physical activity, exercising, and performing well in competition may be influenced by conventional gender stereotypes about male or female sports or tasks.

### **Problem**

To explore the gender differences in self-efficacy and burnout among both male and female sports persons.

### **Hypothesis**

There would be significant gender differences in self-efficacy and burnout among both male and female sports persons.

## **METHODOLOGY**

### **Design**

Two group research design was used to determine the gender variations in self-efficacy and burnout among both male and female sports persons.

### **Sample**

A purposive sample of 110 sports persons both male and female was selected. All the subjects selected have been going for regular practice in the university ground of CRSU Jind, studying at PG level and belonging to an age group of 24-26 years.

### **Tools**

#### **Maslach Burnout Inventory**

The MBI (Maslach Burnout Inventory) is used to assess the three components of the burnout syndrome: "emotional exhaustion, depersonalization and reduced personal accomplishment". There are 22 items which are divided into three subscales. The items are answered in terms of the frequency with which the respondent experiences these

feelings on a 7-point fully anchored scale (ranging from 0 "never" to 6 "everyday". "Cronbach alpha ratings of 0.90 for emotional exhaustion, 0.76 Depersonalization and 0.76 for Personal accomplishment were reported by Schwab".

### **General Self-Efficacy Scale**

The "General Self-Efficacy Scale (GSE) consists of 10 items that assess optimistic self-beliefs to cope with a variety of difficult demands in life with statements" such as "I can usually handle whatever comes my way" (Schwarzer and Jerusalem, 1995; Weber et al., 2013)". Participants' responses were rated using a four-point scale ranging from 1 (does not describe me at all) to 4 (describes me to a great extent). In the present study, Cronbach's alpha coefficient for the GSE was 0.86.

### **Procedure**

For the execution of the current work sports persons were contacted. After their voluntary participation and fulfilling the criteria to be included in the work, rapport was established with each participant and assured them about the confidentiality of their responses. After the completion of the questionnaires, questionnaires were taken back and the Participants were thanked for their precious valuable time and their cooperation. They were instructed to fill each inventory/ scale/ questionnaire as per their instruction. After fulfilling each proforma, the researcher scored their responses as per the norms of each scale/ questionnaire/ inventory. Further raw scores were subjected to statistical analysis by using SPSS (Statistical Package for Social Sciences).

### **Result and Discussion**

To achieve the goal of the current study, collected data were recorded for statistical analysis. The t-test was used to examine all of the data. Moreover, the role of self-efficacy and burnout with regard to the gender of sports persons has been also explored.

*Table 1 Mean differences between male and female sports persons.*

Variables	Gender	Mean	SD	t-value
BURNOUT	M	80.09	10.6	0.97
	F	94.63	10.6	
Burnout subscales: emotional exhaustion	MF	30.31	9.0	12.52
		48.76	5.6	
personal accomplishment	M	37.48	8.9	-9.09
	F	21.90	8.7	
depersonalization	M	12.29	3.77	14.7
	F	23.73	4.21	
SELF-EFFICACY	M	21.20	8.46	-2.14
	F	17.87	7.76	

The current study's goal is to look into the gender differences in self-efficacy and burnout among both male and female sports persons. As a review of Table No. 1 results assuredly disclosed that there are significant differences in burnout and self-efficacy among sports persons. In burnout, females reported a higher mean i.e. 94.63 and SD is 10.6 and in their subscales which is emotional exhaustion, females reported a higher mean i.e. 48.76 and SD 5.6 while in personal accomplishment males. reported higher mean i.e. 37.48 and SD 8.9. In other subscale, which is depersonalization, females scored higher than males i.e. 23.73 and SD 4.21. High levels of depersonalization in athletes may be by the repression of emotions, as well as the stress of competition and the drive to succeed. (Gautam and Singh, 2019). In the other variable which is self-efficacy, males revealed a higher mean than females i.e. 21.20 and SD 8.46. also, play an important role in every human being's life because if we increase or improve our self-perception we will definitely enhance our lives because basic perceptions of their own efficacy will help them to excel in their chosen sports and whilst important for daily life. The single biggest factor influencing a sports person's confidence is their past success. Students are more likely to think they will succeed in the future if they have previously excelled at a particular skill. The indirect experience of watching a model in action may additionally have a significant impact on an athlete's sense of self-efficacy. People check out their own potentiality by monitoring people who are similar to them and executing tasks. If a pupil witnesses a friend publishing a poem, he might think he can do the same. Surgevil (2006) also demonstrated that having the capacity to see a person's own self-efficacy as being higher is crucial for overcoming burnout. Nara (2017) also validates the same research evidence. Some studies show females reporting higher emotional exhaustion (Schaufeli, 1998) and also some studies i.e. Santen S.A, Holt D.B, Kemp J.D, Hemphill R.R(2004), showed that there is no gender difference in emotional exhaustion. Preceding studies have indicated that there may be gender differences in self-efficacy and burnout in sports (Jones & Blanchard, 2010).

Research has also shown that both self-efficacy and burnout have a significant impact on an athlete's performance and well-being (Gould, Dieffenbach, & Moffett, 2002). Like drive, self-efficacy is regarded as one of the key elements influencing athletic success. Purvanova and Muro's results refute the widespread assumption that in relation to men a female marks higher burnout as, we know females are more emotionally drained than men whilst men mark higher in the sense of invisibility. As we know Chronic stress is a significant contributor to burnout, so it's important to understand how psychological inflammation impacts the system overall. Results have made evident that gender differences in the above measures.

In a nutshell, it may be stated that a higher self-efficacy-based approach might also be a

helpful perspective for graceful life as it emphasizes upon sportsperson potentials and strengths which can highlight that we definitely enhance our lives because basic perceptions of their own efficacy will help them to excel in their chosen sports.

**Limitations:**

Small sample

Some more psychological correlates like mental health, emotional adjustment, optimism, etc. could have been investigated.

Some more demographic variables could have been measured.

**Implications:**

This study has many behavioural and applied values in the current scenario as it has dealt with sportspersons. Generally, their physical health is always being taken as a priority but how their psychological correlates play a vital role is a matter of concern. This investigation gives guidelines to the sports coaches as well as trainers to make the training engrossing for both male and female sportspersons so that they are more motivated to excel in competitive activities.

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# School Dropouts among Scheduled Castes: A Caste Wise Analysis of Rural Areas of Jind District in Haryana

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## Abstract

The present research paper tried to understand the class wise school dropout and gender gap among scheduled castes at various stages in rural areas of Jind district in Haryana. Primary data has been collected from 890 sample households of selected twenty villages. Class and gender wise total enrolled, continued and dropouts have been calculated in per cent. Based on primary data, the dropout rate is recorded higher at the upper primary level, where as it is comparatively less at secondary, primary, and senior secondary stages respectively. Further, it is observed that more than half of the students belonging to the Khatik caste did not continue their studies at primary stage. The dropout rate is high among the Doom caste at upper primary stage. Similarly, two-third students of the Sansi caste did not continue their studies at secondary level, and no student belonging to the Deh caste continued the study at senior secondary stage among scheduled castes. It is also recorded that the average dropout rate among the girls is less as compared to boys at various stages of education except senior secondary in the study area. The financial constraints, domestic work, marriage, no interest of parents and ill health are the major reasons of dropouts in the study area.

**Keywords:** Scheduled Castes, Continued and Dropout Students, Educational Stages; Primary, Upper primary, Secondary and Senior Secondary, Gender Gap.

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## Introduction

Education is a basic need for a person and it plays a major role in "creating the basic ideas, habits and attitudes of a child with view to producing well balanced individuals. It is also the basic requirement for human development, survival of the society and economic growth. The development of an individual and the progress of a nation depend on education. It is also equally important to improve the women status and autonomy. It contributes to an increase in confidence and decision-making power within the household" (Sharma, et.al, 2007).

Chug (2011) described that "the dropout problem is pervasive in the Indian education system. Many children, who enter school, are unable to complete education and multiple factors are responsible for children dropping out of school. She identified important risk factors that include; poverty, low educational level of parents, the weak family structure, pattern of schooling of sibling, and lack of pre-school experiences, family background, domestic problems which create an environment which negatively affects the value of education, and multitude of school factors such as un congenial atmosphere, poor comprehension, absenteeism, attitude and behavior of the teachers and failure or repetition in the same grade etc". After a year, Sajjad, et. al, (2012) studied based on sample of 129 respondents from four government primary schools of south east Delhi that "poverty, illiteracy and callous attitude towards girl education are the factors for the high drop out of girls. Similarly, academic attainment of parents, large family size, and low income occupations are the key determinants that influence the increasing magnitude of children dropping out of school. They also found that dropout rate is more among girls than boys".

Gouda and Sekher (2014) based on the data from National Family Health Survey -3 observed that "the dropout was high among the children belonging to Muslim, Scheduled Caste and Scheduled Tribe families in India. The dropout was higher among girls than boys. The major reasons of dropouts are children were not interested in studies, cost was too much, work outside to contribute to family income, got married, poor infrastructure, lack of teachers, quality of education etc."

Ansary (2017) explained the socio-economic factors of dropout situation in rural primary education in Rajshahi district of Bangladesh. He found that "girls were more likely to be out of school compared to their peer boys counterparts, indicating gender disparity in formal education. He also analyzed that individual as well as household level attributes are important determinants of school dropout, besides that age, sex, parent's education and occupation, residence and land ownership pattern were found to be highly significant predictors in determining dropping out from school among the rural children of Bangladesh".

In a recent study, Mollah and Tarafdar (2021) also tried to highlight dropout and enrolment

of children in school level based on gender in India up to the secondary level of education, during the last one decade, viz., for the 2004-2005 to 2013-2014. They found that "the enrolment percentage of girls has improved over two fold to boys. The study reveals that on average, nearly 25 per cent students dropout by time they reach primary level, 43 per cent by upper primary level and 54 per cent by secondary level each year. Further, they observed the positive improvement of girls' education compared to about 27 per cent boys, 24 per cent girls dropout by the time they reach primary level and 43 per cent boys, 42 per cent girls dropout by the time they reach upper primary level and 54 per cent boys, 55 per cent girls dropout by the time they reach at secondary level".

The problem of dropout of students at various stages such as primary, upper primary, secondary and senior secondary is deeply seated in almost all the developing countries like India. Hence, it has attracted the attention of academicians, researchers, and policy makers for a long time.

### **Definition of Dropout**

According to dictionary of education dropout is "most often designates an elementary or secondary school pupil who has been in membership during the regular school term and who withdraws or is dropped from membership for any other reason except death or transfer to another school before graduating or before completing an equivalent programme of studies, such an individual is considered a drop-out whether his dropping out occurs during or between regular school, whether his dropping out occur before or after he has passed the compulsory school attendance age whether or not he has completed a minimum required amount of school work" (Good, 1973). "Indian school education system is divided into four stages; primary stage includes class I to V, upper primary stage includes class VI to VIII, secondary stage included class IX to X, and senior secondary stage includes XI to XII. It is general phenomenon that dropout exists in each and every class level of the school" (Siddique, 2013).

### **Need of the present study**

Despite of governmental efforts, the other household, social and economic factors play a major role in influencing the dropouts of education. Therefore, it is very important to understand the family and parental characteristics to examine the reasons behind school dropouts at various stages of educational attainment.

It has been observed that the literacy rate has improved sharply among scheduled castes females as compared to males, but the gap is still high. As per census of India "the effective literacy rate for males increased from 65.88 per cent in 2001 to 75.10 per cent in 2011 registering an increase of 9.22 per cent among scheduled castes in rural Haryana. On the

other hand, the female literacy rate has increased from 40.64 per cent in 2001 to 55.20 per cent in 2011 registering an increase of 14.56 per cent. The gap between male and female literacy rate among scheduled castes has reduced from 25.24 per cent in 2001 to 19.90 per cent in 2011 in rural Haryana". The gender gap is still undesirably high and cause for concern.

Hence, with this backdrop, authors have tried to understand the class and gender wise school dropouts among scheduled castes at various stages in rural areas of Jind district of Haryana.

### **Objectives of the Study**

The main objectives of the present study are;

- (i) to study the caste and class wise school dropouts among scheduled castes in various stages of education in rural areas of Jind district.
- (ii) to study the gender gap at various stages of school dropouts among scheduled castes in rural areas of Jind district.

### **Study Area**

The district is located in the northern part of Haryana state and lies between 29° 3' and 29° 51' north latitudes and 75° 53' and 76° 47' east longitudes. As per Census 2011, the district Jind has 302 villages including four un-inhabited villages. On its east and north east lie the districts of Karnal and Kurukshetra respectively. Its boundary line on the north forms the inter-state Haryana-Punjab border with Patiala and Sangrur districts of Punjab across it. In the west and south-west it has a common boundary with Hisar and in its south and southeast lie the districts of Rohtak and Sonapat respectively.

### **Source of Data and Research Methodology**

The present study is based on primary as well as secondary sources of data. The primary data has been collected by using well prepared schedule and conducted the personal interview with the head of household. On the basis of five selected parameters such as percentage of scheduled caste population, literacy rate, work participation rate, village distance from the town, and number of households of scheduled caste community in a village, 890 sample households have been taken from twenty selected villages with the help of stratified random sampling (Table 1). To find out the extent of enrollment, continued and dropout children, 1st class to 12th class have been analyzed. Class and gender wise enrolled, continued and dropouts of scheduled castes have been calculated in per cent. Finally, the gender gap of school dropouts among scheduled castes at various stages has also been analyzed in the rural areas of Jind district.

**Table 1****Jind District: Selected Villages and Number of Households**

Sr. No.	Name of Selected Village	Sample Households	Sr. No.	Name of Selected Village	Sample Households
1.	Dhamtan Sahib	60	11.	Nirjan	40
2.	Dhabi Tek Singh	60	12.	Bahadurpur	40
3.	Pipaltha	60	13.	Karela	40
4.	Dhanauri	60	14.	Gurthali	30
5.	Dhathrath	60	15.	Silla Kheri	30
6.	Morkhi	60	16.	Paju Kalan	30
7.	Pegan	60	17.	Anta	30
8.	Koel	50	18.	Kamach Khera	30
9.	Shahpur	50	19.	Gharwali	30
10.	Lohchab	40	20.	Khrera Gandawala	30

Note: The households have been selected as per the availability of number of households of scheduled castes in the villages.

**Source:** *Field Survey, 2016. Compiled by Authors*

## Result and Discussions

### Population Characteristics

Based on sample households, the total population of eight select scheduled castes from 20 villages is 4,773 persons comprising 2,563 males and 2,210 females. The Chamar caste accounts for more than 36 per cent population of the sample households closely followed by the Balmiki with approximately 31 per cent. The Dhanaks occupy the third position with 18 per cent population while the Deh and the Banjara castes shared about 1.7 per cent.

The overall literacy rate is 76 per cent while the male and female literacy rates are 85 per cent and 65 per cent respectively. The highest literacy rate is recorded in the Khatik and lowest literacy rate in the Deh. The sex ratio is recorded 862 females per thousand males. The average size of the household is 5.4 persons. The largest size of household among scheduled castes is observed among the Deh and the smallest size of households is reported by the Khatik. The caste wise population characteristics have also been expressed in the table 2.

The caste and class wise enrolled, continued and dropout status of students at various stages of education from primary stage to senior secondary stage has been discussed in the forthcoming section.

**Table 2**  
**Population Characteristics of Sample Households among Scheduled Castes in Rural Areas of Jind District**

Parameters	Scheduled Castes								
	Chamar	Balmiki	Dhanak	Doom	Sansi	Khatik	Deh	Banjara	Total
No. of Households	328	276	157	056	040	021	006	006	890
Total Population	1734	1486	857	298	217	103	41	37	4773
(Per cent)	36.33	31.13	17.96	06.24	04.55	02.16	00.88	00.78	100.0
Male Population	938	788	459	164	110	64	24	16	2563
Female Population	796	698	398	134	107	39	17	21	2210
Pop. (0-6 Yr.)	188	164	108	46	27	11	05	03	552
Male Pop. (0-6 Yr.)	101	87	55	27	13	06	03	00	292
Female Pop. (0-6 Yr.)	87	77	53	19	14	05	02	03	260
Population (> 0-6 Yr.)	1546	1322	749	252	190	92	34	36	4221
Male Population (> 0-6 Yr.)	837	701	404	137	97	58	16	21	2271
Female Population (> 0-6 Yr.)	709	621	345	115	93	34	18	15	1950
Total Literates	1216	941	573	202	137	74	23	27	3193
(Per cent)	78.65	71.18	76.50	80.16	72.11	80.43	63.89	79.41	75.65
Male Literates	740	549	347	121	83	51	16	16	1923
(Per cent)	88.41	78.32	85.89	88.32	85.57	87.93	76.19	100.0	84.68
Female Literates	476	392	226	81	54	23	07	11	1270
(Per cent)	67.14	63.12	65.51	70.43	58.06	67.65	46.67	61.11	65.13
Sex Ratio	849	886	867	817	973	609	708	1313	862
Household Size	5.3	5.4	5.5	5.3	5.4	4.9	6.8	6.2	5.4

**Source:** *Field Survey, 2016. Compiled by Authors*

### **Dropout Status of Students at Primary Stage**

Education plays an important role for the development of personality as well as to improve the quality of lifestyle and status of the individual. The elementary education is almost compulsory irrespective of gender in every part of India. According to the Right of Children to Free and Compulsory Education Act (2009) "every child of the age of six to fourteen years shall have the right to free and compulsory education in a neighborhood school till the completion of his or her elementary education".

Table 3 highlighted the caste and class wise status of children at primary stage. It is found that about two-fifths children have discontinued their studies at primary level. It is also evident from the table that nearly two-third students have dropped their studies in fifth class only. Similarly, 7.6, 19, 25.6 and 38.1 per cent students have not continued their studies in class one to class four respectively. It may be noted that as the standard of class increases the dropout rate also increases in boys as well as in girls among scheduled castes at primary level. Further, it is also recorded that dropout is five per cent higher

among boys than girls at primary stage. The dropout rate is less in girls as compared to boys except in fifth class at this particular stage. The maximum dropout rate between boys and girls is found in second class and it is followed by fourth class.

At primary level the highest dropout rate is recorded among the Khatik caste and followed by the Doom and the Sansi, while it is lowest in the Deh caste. The castes like the Chamar, the Banjara, the Dhanak, the Balmiki have recorded the rate of dropout below the average at primary level. The maximum dropout of 54.5 per cent and 57.1 per cent is found among boys and girls respectively in the Khatik caste.

The largest gender gap is recorded in the Banjara caste, while negatively gender gap is recorded in the Sansi caste at the primary level. Further, the highest gender gap is observed in class third among the Sansi, and it is followed by class fifth and second in the Banjara; class fourth and first in the Balmiki and the Khatik respectively. On the other hand, the maximum negative gender gap is found in the fifth class among the Sansi caste, while in class fourth among the Khatiks. It is noted that at the time of survey, no dropout is found among the Dhanak, the Deh and the Banjara castes in first class in the study area.



**Table 3**  
**Caste and Class Wise Continued and Dropout Students at Primary Stage**  
**among Scheduled Castes in Rural Areas of Jind District**

Caste	Total Students	Number of Students in Per cent at Primary Stage (I to V Class)																	
		I			II			III			IV			V			Primary Stage (I-V)		
		Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls
Chamar	Continued	87.5	76.9	96.7	76.5	74.1	79.2	77.9	82.5	73.0	63.5	63.4	63.6	37.6	40.5	32.9	60.0	58.8	61.5
	Dropout	12.5	23.1	03.3	23.5	25.9	20.8	22.1	17.5	27.0	36.5	36.6	36.4	62.4	59.5	67.1	40.0	41.2	38.5
Balmiki	Continued	96.2	93.1	100	84.4	72.7	95.7	79.1	65.5	93.8	64.8	48.3	84.0	32.8	39.4	24.0	62.9	59.0	67.9
	Dropout	03.8	06.9	00.0	15.6	27.3	04.3	20.9	27.6	06.3	35.2	51.7	16.0	67.2	60.6	76.0	37.1	41.0	32.1
Dhanak	Continued	100	100	100	83.3	70.6	100	60.7	52.9	72.7	71.9	65.2	88.9	28.0	31.7	23.5	60.7	59.2	63.0
	Dropout	00.0	00.0	00.0	16.7	29.4	00.0	39.3	47.1	27.3	28.1	34.8	11.1	72.0	68.3	76.5	39.3	40.8	37.0
Doom	Continued	90.0	100	83.3	81.8	85.7	75.0	76.9	75.0	80.0	41.7	42.9	40.0	22.6	11.1	38.5	51.9	47.7	57.6
	Dropout	10.0	00.0	16.7	18.2	14.3	25.0	23.1	25.0	20.0	58.3	57.1	60.0	77.4	88.9	61.5	48.1	52.3	42.4
Sansi	Continued	77.8	83.3	66.7	90.0	100	83.3	50.0	00.0	80.0	46.2	50.0	40.0	27.8	50.0	10.0	53.4	58.6	48.3
	Dropout	22.2	16.7	33.3	10.0	00.0	16.7	50.0	100	20.0	53.8	50.0	60.0	72.2	50.0	90.0	46.6	41.4	51.7
Khatik	Continued	75.0	75.0	00.0	100	100	100	100	100	100	20.0	25.0	00.0	26.7	27.3	25.0	44.8	45.5	42.9
	Dropout	25.0	25.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	80.0	75.0	100	73.3	72.7	75.0	55.2	54.5	57.1
Deh	Continued	100	100	100	66.7	50.0	100	00.0	00.0	00.0	00.0	00.0	00.0	50.0	50.0	50.0	66.7	60.0	75.0
	Dropout	00.0	00.0	00.0	33.3	50.0	00.0	00.0	00.0	00.0	00.0	00.0	0.0	50.0	50.0	50.0	33.3	40.0	25.0
Banjara	Continued	100	100	00.0	00.0	00.0	00.0	00.0	00.0	00.0	100	00.0	100	50.0	50.0	0.0	60.0	50.0	100
	Dropout	00.0	00.0	00.0	100	100	00.0	00.0	00.0	00.0	00.0	00.0	0.0	50.0	50.0	0.0	40.0	50.0	0.0
Continued Students		92.4	89.2	96.1	81.0	74.1	88.9	74.4	71.1	78.7	61.9	56.3	68.9	33.0	36.7	27.9	59.7	57.6	62.4
	Dropout Students	07.6	10.8	03.9	19.0	25.9	11.1	25.6	28.9	21.3	38.1	43.8	31.1	67.0	63.3	72.1	40.3	42.4	37.6

Source: Field Survey, 2016. Compiled by Authors

**Dropout Status of Students at Upper Primary Stage**

The dropout status of students at upper primary stage has been expressed in table 4. It shows that about 47 per cent students have discontinued their studies at the stage of upper primary. It is found that more than half of the students have dropped their studies in seventh and eighth class, while about one-third in sixth class. The dropout rate is also observed less among 'girl' students than boys that is 5.6, 22.1 and 15.1 per cent in sixth, seventh and eighth class respectively. About two-third of the students have not continued their studies among the Doom and it is followed by the Banjara. The lowest dropout is found in the Sansi caste. The highest dropout among the boys is found in the Doom caste, whereas the Banjara among the girls. The maximum gender gap is recorded in the Sansi caste (32 per cent) whereas the highest negative gender gap is found among the Banjara caste (46.7 per cent). The highest dropout rate is recorded among the Doom caste (72 per cent), the Khatik caste (70 per cent) and the Banjara caste (66.7 per cent) in eighth, seventh, and sixth class respectively, whereas it is lowest among the Dhanak caste (22.2 per cent), the Chamar caste (47.1 per cent), and the Sansi caste (35.7 per cent) in sixth, seventh and eighth class respectively.

About one-sixth of dropout is higher among boys than girls at upper primary stage. The dropout rate is less among girls as compared to boys at upper primary level. It is highest in class seventh (22.1 per cent), and followed by eighth (15.1 per cent) and sixth class (5.6 per cent). The highest gender gap is recorded among the Sansi in class seventh (80 per cent), and it is followed by class sixth and eighth among the Khatik (66.7 per cent) and the Dhanak (44.5 per cent) respectively. On the other hand, the cent per cent negative gender gap is found in the seventh and eighth class among the Banjara caste, while in class sixth it is among the Sansi (13.3 per cent). At the time of survey, no dropout is recorded among the Deh caste at this stage of education in Jind district.

**Table 4**  
**Caste and Class Wise Continued and Dropout Students at Upper Primary Stage among Scheduled Castes in Rural Areas of Jind District**

Caste	Total Students	Number of Students in Per cent at Upper Primary Stage (VI to VIII Class)											
		VI			VII			VIII			Upper Primary Stage (VI-VIII)		
		Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls
Chamar	Continued	68.0	61.5	75.0	52.9	42.9	66.7	51.8	46.3	60.5	56.2	48.3	66.9
	Dropout	32.0	38.5	25.0	47.1	57.1	33.3	48.2	53.7	39.5	43.8	51.7	33.1
Balmiki	Continued	66.7	64.3	68.8	45.6	43.1	48.9	44.5	41.2	50.0	49.8	46.1	54.6
	Dropout	33.3	35.7	31.3	54.4	56.9	51.1	55.5	58.8	50.0	50.2	53.9	45.4
Dhanak	Continued	77.8	79.2	75.0	38.3	18.8	60.7	62.3	45.5	90.0	56.4	44.9	73.3
	Dropout	22.2	20.8	25.0	61.7	81.3	39.3	37.7	54.5	10.0	43.6	55.1	26.7
Doom	Continued	62.5	60.0	66.7	33.3	26.7	44.4	28.0	23.1	33.3	35.1	30.3	41.7
	Dropout	37.5	40.0	33.3	66.7	73.3	55.6	72.0	76.9	66.7	64.9	69.7	58.3
Sansi	Continued	71.4	80.0	66.7	42.9	20.0	100	64.3	55.6	80.0	59.5	45.8	77.8
	Dropout	28.6	20.0	33.3	57.1	80.0	00.0	35.7	44.4	20.0	40.5	54.2	22.2
Khatik	Continued	50.0	33.3	100	30.0	16.7	50.0	50.0	66.7	40.0	40.9	33.3	50.0
	Dropout	50.0	66.7	00.0	70.0	83.3	50.0	50.0	33.3	60.0	59.1	66.7	50.0
Deh	Continued	100	100	00.0	00.0	00.0	00.0	100	0.0	100	100	100	100
	Dropout	00.0	00.0	00.0	00.0	00.0	00.0	0.0	0.0	0.0	0.0	0.0	0.0
Banjara	Continued	33.3	00.0	50.0	33.3	100	00.0	50.0	100	0.0	37.5	66.7	20.0
	Dropout	66.7	100	50.0	66.7	00.0	100	50.0	0.0	100	62.5	33.3	80.0
<b>Continued Students</b>		<b>68.7</b>	<b>66.0</b>	<b>71.6</b>	<b>45.4</b>	<b>35.9</b>	<b>58.0</b>	<b>49.8</b>	<b>43.8</b>	<b>58.9</b>	<b>52.5</b>	<b>45.5</b>	<b>61.9</b>
<b>Dropout Students</b>		<b>31.3</b>	<b>34.0</b>	<b>28.4</b>	<b>54.6</b>	<b>64.1</b>	<b>42.0</b>	<b>50.2</b>	<b>56.2</b>	<b>41.1</b>	<b>47.5</b>	<b>54.5</b>	<b>38.1</b>

**Source:** *Field Survey, 2016. Compiled by Authors.*

### **Dropout Status of Students at Secondary Stage**

After attaining the education at upper primary level, secondary and senior secondary level are important stages. It is evident from the table 5 that about 44 per cent students were not in a position to continue their studies due to some reasons at the secondary level. More than half of the students have dropped their studies in tenth class and nearly 38 per cent is in ninth class. The dropout rate is also recorded less among girls' students than boys that are 6.8 and 4.4 per cent in ninth and tenth class respectively.

The highest dropout rate is recorded among the Sansi (66.7 per cent) while lowest is observed in the Chamar caste (36.7 per cent) at secondary level. All castes except the Chamar and the Deh castes have the dropout rate above the average (44.5 per cent). The maximum gender gap is found among the Banjara caste (66.7 per cent). On the other hand, the largest negative gender gap is found among the Doom caste (9.1 per cent). No gender gap is recorded among Sansi caste in this particular stage. The maximum dropout is found among the Sansi (62.5 per cent), and cent per cent among the Deh caste in ninth and tenth class respectively, while it is lowest among the Chamar caste (31.4 per cent and 41.2 per cent) in ninth and tenth class. The dropout rate is less among girls than boys at secondary level. Dropout is about seven per cent higher among boys than girls at this particular stage. The negatively cent per cent gender gap is recorded among the Deh caste in class tenth because no boy is enrolled in this particular class. It may be noted that, at the time of survey, no student is enrolled among the Banjara caste in ninth class also.

**Table 5**  
**Caste Wise Continued and Dropout Students at Secondary Stage among Scheduled Castes in Rural Areas of Jind District**

Caste	Total Students	Number of Students in Per cent at Secondary Stage (IX to X Class)								
		IX			X			Secondary Stage		
		Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls
Chamar	Continued	68.6	57.9	82.2	58.8	55.7	65.0	63.3	56.6	74.1
	Dropout	31.4	42.1	17.8	41.2	44.3	35.0	36.7	43.4	25.9
Balmiki	Continued	54.3	60.3	45.2	48.7	49.3	47.4	51.4	54.3	46.3
	Dropout	45.7	39.7	54.8	51.3	50.7	52.6	48.6	45.7	53.8
Dhanak	Continued	67.3	58.6	78.3	38.5	37.8	40.0	52.9	47.0	63.2
	Dropout	32.7	41.4	21.7	61.5	62.2	60.0	47.1	53.0	36.8
Doom	Continued	64.7	71.4	60.0	48.3	53.3	42.9	54.3	59.1	50.0
	Dropout	35.3	28.6	40.0	51.7	46.7	57.1	45.7	40.9	50.0
Sansi	Continued	37.5	50.0	25.0	30.8	27.3	50.0	33.3	33.3	33.3
	Dropout	62.5	50.0	75.0	69.2	72.7	50.0	66.7	66.7	66.7
Khatik	Continued	58.3	50.0	66.7	40.0	25.0	100	52.9	40.0	71.4
	Dropout	41.7	50.0	33.3	60.0	75.0	0.0	47.1	60.0	28.6
Deh	Continued	66.7	50.0	75.0	0.0	-	0.0	57.1	50.0	60.0
	Dropout	33.3	50.0	25.0	100	-	100	42.9	50.0	40.0
Banjara	Continued	-	-	-	50.0	0.0	66.7	50.0	0.0	66.7
	Dropout	-	-	-	50.0	100	33.3	50.0	100	33.3
<b>Continued Students</b>		<b>61.9</b>	<b>58.9</b>	<b>65.7</b>	<b>49.7</b>	<b>48.2</b>	<b>52.6</b>	<b>55.5</b>	<b>52.8</b>	<b>59.7</b>
<b>Dropout Students</b>		<b>38.1</b>	<b>41.1</b>	<b>34.3</b>	<b>50.3</b>	<b>51.8</b>	<b>47.4</b>	<b>44.5</b>	<b>47.2</b>	<b>40.3</b>

**Source:** *Field Survey, 2016. Compiled by Authors.*

### **Dropout Status of Students at Senior Secondary Stage**

Table 6 also highlighted the status of dropout at the senior secondary level. About two-fifth of the total enrolled students have not continued their studies at the level of senior secondary. It is interested to note that the gender gap of dropout rate is less than one percent. However, the gender gap is recorded three times more in 12th class as compared to 11th class among scheduled castes in the rural areas of Jind district of Haryana.

It is also found that all the boys belonging to Deh caste have discontinued their study at the

senior secondary level, where as no dropout is observed in the Banjara caste. The largest negative gender gap is observed in the Sansi caste (26 per cent) and it is followed by the Chamar and the Balmiki.

### **Dropout Status of Students at All Levels**

Table 7 highlighted the total enrollment, continued and dropout at the four different stages such as primary, upper primary, secondary and senior secondary. Based on sample data the overall average dropout for all the classes (I to XII) among scheduled castes is 43.2 per cent, where as the average dropout for primary, upper primary, secondary and senior secondary levels are 40.3 per cent, 47.5 per cent, 44.5 per cent and 39.8 per cent respectively. It is recorded that the average dropout rate is less among girls than boys at all the levels except senior secondary level. As per data, the gender gap in drop out is observed highest in upper primary level that is 16.4 per cent, where as it is lowest in primary level that is 4.8 per cent.

Finally, the maximum dropout is recorded from class Ist to class XIIth among the Khatik caste (54.2 per cent) and it is followed by the Doom caste. On the other hand, the lowest dropout is found in the Deh caste (40 per cent). The castes like the Chamar and the Dhanak have recorded the rate of dropout below the average at the aggregate levels. Further, it is recorded that average dropout rate is less among girls than boys at the aggregate level in all the castes except the Banjara caste. The highest gender gap in drop out is observed among the Deh caste that is 20 per cent where as it is lowest among the Balmiki (3.3 per cent).

**Table 6**  
**Caste Wise Continued and Dropout Students at Senior Secondary Stage among Scheduled Castes in Rural Areas of Jind District**

Caste	Total Students	Number of Students in Per cent at Senior Secondary Stage (XI to XII Class)								
		XI			XII			Senior Secondary Stage (XI-XII)		
		Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls
Chamar	Continued	86.7	88.9	66.7	53.9	53.1	55.3	61.4	63.7	56.1
	Dropout	13.3	11.1	33.3	46.1	46.9	44.7	38.6	36.3	43.9
Balmiki	Continued	77.4	77.8	76.9	51.3	55.6	40.9	58.9	61.1	54.3
	Dropout	22.6	22.2	23.1	48.7	44.4	59.1	41.1	38.9	45.7
Dhanak	Continued	86.4	83.3	90.0	58.7	54.3	72.7	67.6	61.7	81.0
	Dropout	13.6	16.7	10.0	41.3	45.7	27.3	32.4	38.3	19.0
Doom	Continued	100	00.0	100	58.8	54.5	66.7	61.1	54.5	71.4
	Dropout	00.0	00.0	00.0	41.2	45.5	33.3	38.9	45.5	28.6
Sansi	Continued	75.0	50.0	100	35.7	55.6	00.0	44.4	54.5	28.6
	Dropout	25.0	50.0	00.0	64.3	44.4	100	55.6	45.5	71.4
Khatik	Continued	60.0	50.0	66.7	40.0	28.6	66.7	46.7	33.3	66.7
	Dropout	40.0	50.0	33.3	60.0	71.4	33.3	53.3	66.7	33.3
Deh	Continued	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0
	Dropout	100	100	00.0	100	100	00.0	100	100	00.0
Banjara	Continued	00.0	00.0	00.0	100	100	00.0	100	100	00.0
	Dropout	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0	00.0
<b>Continued Students</b>		<b>80.9</b>	<b>80.6</b>	<b>81.3</b>	<b>53.0</b>	<b>53.6</b>	<b>51.8</b>	<b>60.2</b>	<b>60.4</b>	<b>59.8</b>
<b>Dropout Students</b>		<b>19.1</b>	<b>19.4</b>	<b>18.8</b>	<b>47.0</b>	<b>46.4</b>	<b>48.2</b>	<b>39.8</b>	<b>39.6</b>	<b>40.2</b>

Source: Field Survey, 2016. Compiled by Authors.

**Table 7**  
**Caste Wise Educated, Continue and Dropout Students at Various Stages of Educational Attainment among Scheduled Castes in Rural Areas of Jind District**

Caste	Total Students	Number of Students at Various Levels of Educational Attainment																	
		Primary Stage			Upper Primary Stage			Secondary Stage			Senior Secondary Stage			All Stages					
		Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls			
Chamar	Educated	450	245	205	306	176	130	221	136	85	132	91	41	1109	648	461			
	Continue	270	144	126	172	85	87	140	77	63	81	58	23	663	364	299			
	Dropout	180	101	79	134	91	43	81	59	22	51	33	18	446	284	162			
<b>Dropout in Per cent</b>		<b>40.0</b>	<b>41.2</b>	<b>38.5</b>	<b>43.8</b>	<b>51.7</b>	<b>33.1</b>	<b>36.6</b>	<b>43.4</b>	<b>25.9</b>	<b>38.6</b>	<b>36.3</b>	<b>43.9</b>	<b>40.2</b>	<b>43.8</b>	<b>35.1</b>			
Balmiki	Educated	310	173	137	273	154	119	218	138	80	107	72	35	908	537	371			
	Continue	195	102	93	136	71	65	112	75	37	63	44	19	506	292	214			
	Dropout	115	71	44	137	83	54	106	63	43	44	28	16	402	245	157			
<b>Dropout in Per cent</b>		<b>37.1</b>	<b>41.0</b>	<b>32.1</b>	<b>50.2</b>	<b>53.9</b>	<b>45.4</b>	<b>48.6</b>	<b>45.6</b>	<b>53.7</b>	<b>41.1</b>	<b>38.9</b>	<b>45.7</b>	<b>44.3</b>	<b>45.6</b>	<b>42.3</b>			
Dhanak	Educated	201	120	81	149	89	60	104	66	38	68	47	21	522	322	200			
	Continue	122	71	51	84	40	44	55	31	24	46	29	17	307	171	136			
	Dropout	79	49	30	65	49	16	49	35	14	22	18	04	215	151	64			
<b>Dropout in Per cent</b>		<b>39.3</b>	<b>40.8</b>	<b>37.0</b>	<b>43.6</b>	<b>55.1</b>	<b>26.7</b>	<b>47.1</b>	<b>53.0</b>	<b>36.8</b>	<b>32.3</b>	<b>38.3</b>	<b>19.0</b>	<b>41.2</b>	<b>46.9</b>	<b>32.0</b>			
Doom	Educated	77	44	33	57	33	24	46	22	24	18	11	07	198	110	88			
	Continue	40	21	19	20	10	10	25	13	12	11	06	05	96	50	46			
	Dropout	37	23	14	37	23	14	21	09	12	07	05	02	102	60	42			
<b>Dropout in Per cent</b>		<b>48.1</b>	<b>52.3</b>	<b>42.4</b>	<b>64.9</b>	<b>69.7</b>	<b>58.3</b>	<b>45.6</b>	<b>40.9</b>	<b>50.0</b>	<b>38.9</b>	<b>45.4</b>	<b>28.6</b>	<b>51.5</b>	<b>54.5</b>	<b>47.7</b>			
Sausi	Educated	31	17	14	25	11	14	07	05	02	08	06	02	71	39	32			
	Continue	27	12	15	17	13	04	14	10	04	10	05	05	68	40	28			
	Dropout	46.5	41.4	51.7	40.5	54.2	22.2	66.7	66.7	66.7	55.6	45.4	71.4	48.9	50.6	46.7			
<b>Dropout in Per cent</b>		<b>29</b>	<b>22</b>	<b>07</b>	<b>22</b>	<b>12</b>	<b>10</b>	<b>17</b>	<b>10</b>	<b>07</b>	<b>13</b>	<b>09</b>	<b>06</b>	<b>83</b>	<b>53</b>	<b>30</b>			
Khatik	Educated	13	10	03	09	04	05	09	04	05	07	03	04	38	21	17			
	Continue	16	12	04	13	08	05	08	06	02	08	06	02	45	32	13			
	Dropout	55.2	54.5	57.1	59.1	66.7	50.0	47.1	60.0	28.6	53.3	66.7	35.3	54.2	60.4	45.3			
<b>Dropout in Per cent</b>		<b>09</b>	<b>05</b>	<b>04</b>	<b>02</b>	<b>01</b>	<b>01</b>	<b>07</b>	<b>02</b>	<b>05</b>	<b>02</b>	<b>02</b>	<b>00</b>	<b>20</b>	<b>10</b>	<b>10</b>			
Deh	Educated	06	03	03	02	01	01	04	01	03	00	00	00	12	05	07			
	Continue	03	02	01	00	00	00	03	01	02	02	02	00	08	05	03			
	Dropout	33.3	40.0	25.0	00.0	00.0	00.0	42.9	50.0	40.0	100.0	100.0	00.0	40.0	50.0	30.0			
<b>Dropout in Per cent</b>		<b>05</b>	<b>04</b>	<b>01</b>	<b>08</b>	<b>03</b>	<b>05</b>	<b>04</b>	<b>01</b>	<b>03</b>	<b>02</b>	<b>02</b>	<b>00</b>	<b>19</b>	<b>10</b>	<b>09</b>			
Banjara	Educated	03	02	01	03	02	01	02	00	02	02	02	00	10	06	04			
	Continue	02	02	00	05	01	04	02	01	01	00	00	00	09	04	05			
	Dropout	40.0	50.0	00.0	62.5	33.3	80.0	50.0	100.0	33.3	00.0	00.0	00.0	47.4	40.0	55.6			
<b>Dropout in Per cent</b>		<b>1139</b>	<b>642</b>	<b>497</b>	<b>859</b>	<b>492</b>	<b>367</b>	<b>638</b>	<b>390</b>	<b>248</b>	<b>362</b>	<b>245</b>	<b>117</b>	<b>2998</b>	<b>1769</b>	<b>1229</b>			
<b>Total Educated Persons</b>		<b>680</b>	<b>370</b>	<b>310</b>	<b>451</b>	<b>224</b>	<b>227</b>	<b>354</b>	<b>206</b>	<b>148</b>	<b>218</b>	<b>148</b>	<b>70</b>	<b>1703</b>	<b>948</b>	<b>755</b>			
<b>Total Continue Persons</b>		<b>459</b>	<b>272</b>	<b>187</b>	<b>408</b>	<b>268</b>	<b>140</b>	<b>284</b>	<b>184</b>	<b>100</b>	<b>144</b>	<b>97</b>	<b>47</b>	<b>1295</b>	<b>821</b>	<b>474</b>			
<b>Dropout in Per cent</b>		<b>40.3</b>	<b>42.4</b>	<b>37.6</b>	<b>47.5</b>	<b>54.5</b>	<b>38.1</b>	<b>44.5</b>	<b>47.2</b>	<b>40.3</b>	<b>39.8</b>	<b>39.6</b>	<b>40.2</b>	<b>43.2</b>	<b>46.4</b>	<b>38.6</b>			

Source: Field Survey, 2016. Compiled By Authors.



### **Some Important Reasons for Dropout**

There are various factors associated with the process of dropping out from school. Hunt (2008) highlighted some of these factors belong to "the individual or child, such as poor health, under-nutrition or lack of motivation to learn. Some of factors emerged from children's household situations such as child labour, migration and poverty". School level factors also play a pivotal role in increasing pressure to dropout such as "teacher absenteeism, location of school, quality of poor educational provision" (Alexander, 2008). "Demand and supply driven factors, embedded in cultural and contextual realities influence the process of dropping out from school" (Sabates, 2010).

Table 8 also reveals the various reasons for dropout. The financial constraints, domestic work, marriage, no interest of parents and ill health are the major reasons of dropouts in the study area. About 52 per cent boys and 18 per cent girls were dropouts to supplement the meager income of the family. It may be noted that more than two-fifth of the girls were dropout of their school because of domestic work and marriage. Further, nearly 15 per cent of the girls were dropout due to no interest of the parents. It is also observed that no girl was dropout due to bad company of the children, physical handicap, inadequate school infrastructure, and less transport facilities. On the other hand, about 13.4 per cent boys were dropout because of their bad company in the schools. Besides that ill health, parents illiteracy, poor teaching quality, language deficiency, insufficient time, physical handicap, inadequate school infrastructure, and less transport facilities.

### **Conclusions**

The present paper tried to analyze school dropouts and its responsible factors at various stages among scheduled castes in rural areas of Jind district in Haryana. Based on sample data, it is recorded that more than two-fifth of the students have discontinued their studies. The dropout rate is recorded higher at the upper primary level (47 per cent) and secondary level (45 per cent) where as at primary level it is recorded comparatively less (40 per cent) among scheduled castes in the study area. Further, it is also found that the dropout rate among girls is less than boys at the aggregate level among scheduled castes. Finally, about two-third of the students have discontinued their studies due to financial constraints, domestic work and marriage in the study area.

**Table 8**  
**Reasons of School Dropout among Scheduled Castes in Rural Areas of Jind District**

Reasons of School Dropouts	(In Per cent)		
	Total	Boys	Girls
Financial Constraints	39.8	51.6	18.2
Domestic Work	13.2	08.5	21.8
Marriage	11.3	05.7	21.4
No Interest of Parents	09.3	06.0	15.6
Bad Company of Children	08.7	13.4	00.0
Ill Health	06.6	06.9	06.1
Parents Illiteracy	03.4	02.3	05.5
Poor Teaching Quality	02.3	02.1	02.8
No School Near by	02.0	00.6	04.6
Language Deficiency	01.9	01.6	02.4
Insufficient Time	01.0	00.6	01.6
Physical Handicap	00.3	00.5	00.0
Inadequate School Infrastructure	00.1	00.1	00.0
Less Transport Facility	00.1	00.1	00.0
Total	100.0	100.0	100.0

**Source:** *Field Survey, 2016. Compiled By Authors.*

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# **Adoption of Ind-AS and Value Relevance of Accounting Data- A Kaleidoscopic View**

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## **Abstract**

Value relevance is generally considered to measure relationship between financial information and stock performance in the market. Though there exist different views of value relevance, measurement view having prominent relevance is used for this study. This paper examines the influence of Ind-AS on the value relevance of accounting data before and after adoption using S&P BSE SENSEX 30 companies. Like to earlier studies, Ohlson model is used for exploring the association among MV of Equity and BV of Equity & EPS. BVPS & EPS has been a linear function of market share as per this Model. The result show that value relevance has improved and almost doubled after introduction of Ind-AS.

**JEL Code:** C12, G11, M41

**Keywords:** Earnings per share, Value Relevance, Ohlson model, Ind-AS, Book value per share.

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## **Introduction**

Advancements and improvements of existing accounting standards are mechanics to improve financial reporting quality. These advancements of accounting standards can also be linked with financial transparency as well as clouding the informational asymmetry. Transparency in financial markets carries paramount importance for society as a whole. The quality of accounting information is one of the important elements influencing stakeholder's economic decisions to poured their money in any of the fruitful decision making (Kouki, 2018). Transparent company accounts has its own importance for investors (individual and institutional investors) resulting into better and fair comparison at national and international scale. The information provided by financial statement should fairly reflect firm's position as well as prospects for future investment. Thus, because of this reason, encouragement and enforcement of IFRS is considered important by the standards setters (Devalle et al., 2010). That is why the International Accounting Standard Board (IASB) developed a sole set of remarkable globally recognised "International Financial Reporting Standards (IFRS)" to facilitate investors and various other users of financial statements to compare the financial performance of companies at international level.

Turning to underline the relevance of financial reports, these reports are considered as a best way for communicating the performance of organizations to the numbers of stakeholders of the organizations. These reports guide and assist different users in their future investment prospects. For fulfilling this communicative role, International Accounting Standard Board argues that financial statements should possess some qualitative characteristic that would make financial statements relevant for taking decisions (Musa & Tanimu, 2017). Qualitative trait are the attributes which make financial disclosure useful and contains the key element of accounting quality i.e., relevance, reliability, understand ability and comparability (Al-Dmour et al., 2018). Most accounting researchers now spend a lot of time researching the quality of financial reporting, especially in developed capital markets.

## **Value Relevance of Accounting Information**

"Value relevance refers to the quality of information provided by financial statements to reflect firm value, as measured by the statistical relationship between financial statement information and stock returns" (Kargin, 2013). There exist different perspectives about value relevance, which explain it in a different way. As per the fundamental analysis view of value relevance, financial figures are considered to be value relevant if it results in change in the values of stock returns. It can be measured by the returns, the firm generates through improving accounting information on trading strategies. The second point of view is the predictive perspective of value relevance, which states that financial statement

information is considered value relevant if it helps foresee any underlying value attribute. As a result, information is considered significant if it can be used to anticipate future earnings (Nilsson & Kand , 2003).

Further, Informational view states accounting data to be value relevant if investors use it while setting price (Francis & Schipper, 1999). Measurement View considers information to be value relevant by its capacity to capture information that impact equity value regardless of source. Different perspectives carry different views but measurement view is found to be the most important one and therefore, it is considered for this study. Since the purpose of this study is to examine the usefulness and applicability of accounting data in the context of the implementation of Ind-AS, Following section explains about Ind-AS.

### **Background of Indian Accounting Standards (Ind-AS):**

The prompt growth of international market across the World truly depicts those financial reports prepared as per local GAAP and Accounting Standards (AS) will in no way to satisfy the requirements of international investors (Musa & Tanimu, 2017). India, being a developing country can't keep itself away from the developments taking place across the world (Vardia, Kalra, & Soral, 2016). Thus, in an effort to enhance transparency and harmonisation of financial reporting standards, The Indian Accounting Standard (Ind-AS) will be converged with IFRS in phases, according to a 2015 letter from the Ministry of Corporate Affairs (MCA). Ind-AS are standards converged with IFRS to make financial reporting more internationally accessible for Indian companies. As per MCA notification, it was recommended that convergence to Ind-AS would be pursued in a phased manner on the basis of companies' net worth and listing status. These phases have been classified into following four categories.

**Table 1: Implementation of Ind-AS: Phase wise details**

<b>Phases</b>	<b>With Effect From</b>	<b>Companies</b>	<b>Net Worth</b>
1	1 <sup>st</sup> April, 2016	Mandatory For All Public And Unlisted Companies.	Net Worth $\geq$ ₹ 500 Crore
2	1 <sup>st</sup> April, 2017	All companies must comply with this requirement if they are either listed or in the process of being listed. (as on 31.03.2016)	Net value of at least ₹ 250 crore but $<$ ₹ 500 crore
3	1 <sup>st</sup> April, 2018	Mandatory for all banks, NBFCs, and insurance businesses	Net worth $\geq$ ₹ 500 crore.
4	1 <sup>st</sup> April, 2019	Mandatory for all Non-Banking Financial Companies	Net worth greater than or equal to ₹ 250 crore but less than ₹ 500 crore

### **Literature review and Hypothesis Development**

Value relevance studies have gained a lot of impetus after the introduction of the global standard -IFRS in different countries. Devalle et al., (2010) determined that there exists conflicting evidence of enhanced value relevance with the sample of 3721 businesses listed at European stock exchanges. In Germany, France, & UK, the impact of earnings on share price grew after the implementation of IFRS, whereas the impact of BV of equity decreased in all of these nations except the UK. Bogstrand & Larsson, (2012) depicts empirical evidence for an enhanced value-relevance in both earnings figures as well as book values. Tsalavoutas et al., (2012) noticed that after Greece switched to IFRS, there had been no appreciable change in value relevance.

Chebaane & Othman, (2014) studied the footprint of implementing the necessary (IFRS) on the book value & value relevance of earnings. Using 10838 firm year observations from emerging economies, it concluded that value relevance of firms is positively related with capital market. Garcia et al., (2017) examined improvement in accounting quality of four Latin American companies due to shift in standards from local to international and seeks to determine if the adoption of the IFRS by businesses has an impact on the relevance and timeliness of essential accounting variables. A sample of 923 businesses from Chile, Brazil, Mexico and Argentina were used in this study, which was done between 2000 and 2014. The findings demonstrate that shifting from regional accounting norms to standards that have received worldwide approval, using panel data and quantile regression have increased value relevance. Additionally, the findings imply that large enterprises have profits timeliness.

Musa & Tanimu, (2017) studied value relevance of financial figures after IFRS adoption in Nigeria. Random sample of 77 companies listed on NSE Nigeria was selected and by analysing its variable using least square, it reveals that there exists a significant relation between BV of equity and net income on stock price. This depicts that financial figures are more value relevant after IFRS adoption. Badu & Appiah, (2018) determined how much accounting data contributes to the volatility in stock prices of companies that are listed on the Ghana Stock Exchange. Results shows that there is a positive and significant correlation between BV of equity and earnings in context of stock prices. Earnings, contrary to book value of equity, account for more fluctuation in stock market valuations. However, the analysis reveals that from 2005 to 2014, despite Ghana's adoption of the IFRS, book value and earnings relevance drastically decreased.

Nijam & Jahfer, (2018) used comparative studies in the pre & post-IFRS adoption eras to investigate the influence of value relevance in Sri Lanka. Implementing the Ohlson price regression model with a sample of 204 businesses listed on the Colombo Stock Exchange,

it was determined that accounting information provided by enterprises listed on the CS Exchange is value relevant following the IFRS adoption period.

In Indian context Srinivasan & Narasimhan, (2012) used an empirical research to investigate the value relevance of Consolidated Financial Statement. The study examines data from 59 corporations over a four-year period whose subsidiary earnings are greater than 20% of total sales. According to preliminary findings, yearly parent-only financial statements are more valuable than annual CFS. In contrast, CFC are discovered to be value relevant everywhere quarterly financial statements are accessible, whereas parent-only financial statements are not. Mulenga, (2015) using fixed effect and random effect model it concluded that out of all the variables EPS was found to be highly correlated with share price. Vardia et al., (2016) ended up that adoption of Ind-AS show improvement in the value relevance of accounting information on the basis of responses and regression model. Mulenga & Bhatia, (2020) using price and return model it ended up that accounting information has tremendous value in certain sectors but poor value in others. Similarly, Tamilselvi & Nandini, (2020) using data set of 100 companies, the study concludes that adoption of Ind-AS leads to increased value relevance of accounting data. The above studies provide contradict insights about the impact of Ind-AS / IFRS on value relevance. This aspect needs more investigations to provide an adequate conclusion and theory development. Similarly, in reference to above studies, the following alternative hypothesis is designed:

H<sub>a</sub>: Transition to Ind-AS increases value relevance of earnings per share and book value.

### **Objective and Research Methodology**

Ind-AS convergence with IFRS seeks to deliver more accurate and transparent financial statements, making it more relevant to accounting data users than local accounting standards. The primary goal of the present study is to examine the influence of Ind-AS on the value relevance of accounting data by comparing the magnitude of value relevance of accounting data in pre & post era. This research would be useful not just to academics, but also to regulatory agencies and standard-setting bodies in easing the process of establishing reporting requirements that are sensitive to local economic conditions. It will also be a valuable addition to the worldwide literature on harmonisation.

This study adopts descriptive research design and S&P BSE SENSEX 30 companies have been considered as sample size. The sample didn't include financial and banking companies as these are subject to different regulatory requirements. Exclusion of nine financial and banking companies' leaves the sample size to 21, which are further reduced to 19 due to exclusion of two more companies because of inadequacy of data. List of remaining sample companies are as follows:



**Table 1: Sample Companies**

<b>Companies</b>	<b>Industry</b>
Asian Paints Ltd.	Furniture and furnishing Paints
Bajaj Auto Ltd.	Car and utility vehicles
Bharti Airtel Ltd.	Telecom services
Ultra tech Cement Ltd.	Cement& cement products
Hindustan Unilever Ltd.	Personal Products
Infosys Ltd.	It consulting &Software
Imperial Tobacco (ITC) Ltd.	Cigarettes and tobacco products
Larsen & Turbo Ltd.	Construction &Engineering
Mahindra & Mahindra Ltd.	Car and utility vehicles
Maruti Suzuki Ltd.	Car and utility vehicles
NTPC Ltd.	Electric utilities
Oil And Natural Gas Corporations Ltd.	Exploration and Production
Power Grid Corporation Of India Ltd.	Electric utilities
Reliance Industry Ltd.	Integrated oil and gas
Sun Pharmaceutical Ltd.	Pharmaceutical
TATA Steel Ltd.	Iron &Steel product
Tata Consultancy Services(TCS) Ltd.	It consulting &Software
Tech Mahindra Ltd.	It consulting &Software
Titan Ltd.	Consumer Durables

**Source:** BSE website

This research work is mainly based on secondary data. The data has been extracted from companies' annual reports listed on BSE and websites such as money control, yahoo finance etc. Further the collected data pertains to eight years from 2012-2013 to 2019-2020 where time period from 2012 to 2016 covers Pre Ind-AS period and from 2016 to 2020 covers Post Ind-AS period. These sub sets of period have been chosen to facilitate better comparison before and after convergence to Ind-AS. The data related to Pre Ind-AS period is as per local GAAP and Post Ind-AS period is as per Ind-AS.

**Table 2: Sources of Information**

<b>Variable</b>	<b>Source</b>
Market value per share (MV)	Indian stock exchange (BSE& NSE)
Earnings per share (EPS)	Annual reports : Consolidated balance sheet/ financial ratios (online version)
Book value per share (BVPS)*	Annual reports: consolidated balance sheet/ financial ratios (online version)

\*Annual reports of some companies did not cover book value per share. Therefore, it has been computed using the following formula:

$$\text{Book value per share} = \text{Net assets} / \text{Number of outstanding equity share}$$

#### Model specifications

Various other similar studies that sought to investigate impact of IFRS on value relevance of accounting data have employed the Ohlson's Model of value relevance (1995) (Nijam & Jahfer, 2018; Devalle, Onali, & Magarini, 2010; Bogstrand & Larsson, 2012; Musa & Tanimu, 2017; Gjerde, Knivsfla, & Sættem, 2008). The Ohlson price model states:

$$MV_{it} = a_0 + B_1 EPS_{it} + B_2 BVPS_{it} + e_{it}$$

Where  $MV_{it}$  is market value per share of company  $i$  at time  $t$ ,  $EPS_{it}$  is earning per share of company  $i$  at time  $t$ ,  $BVPS_{it}$  is book value per share of company  $i$  at time  $t$  and  $e_{it}$  is error term. As per this Ohlson Price Model, price of market share is a linear function of its EPS and BVPS (Vardia, Kalra, & Soral, 2016; Nijam & Jahfer, 2018; Warsame, 2016). But, there exist some different views among researchers related to this model. Some of the researchers have focussed on the relationship between MV and BV while some on the relationship between MV and EPS (Nijam & Jahfer, 2018). As far as value relevance of accounting data is concerned, all these studies have used Ohlson model. Therefore, this study also employs the same model for accomplishing its objectives.

**Table 3: Description of Variables**

Code	Nature
MV (Market value per share)	Dependent variable
MV1 - Pre MV MV2 - Post MV	
EPS (Earnings per share)	Independent variable
EPS1- Pre EPS EPS2- Post EPS	
BVPS (Book value per share)	Independent variable
BVPS1-Pre BVPS BVPS2- Post BVPS	
T	Time period { From 2012-2013 to 2019-2020}

**Source:** Authors

In this study, initially, the combined influence of BVPS & EPS in justifying market prices is measured and thereafter, individually influence of each of independent variable on market price is determined and examined.

#### Analysis & Discussion

*Descriptive statistics of EPS, BVPS and MV in Pre Ind-AS period and in Post Ind-*

*AS period:***Table 4: Comparison of Descriptive statistics of EPS, BVPS and MV in pre and post Ind-AS period**

Particulars	Min. (Rs.)		Max. (Rs.)		Mean (Rs.)		Std. Dev.	
	Pre.	Post.	Pre.	Post.	Pre.	Post.	Pre.	Post.
Earnings per share (EPS)	-74.540	-63.410	168.460	260.88	45.63	54.01	46.19	63.66
Book value per share (BVPS)	16.690	38.200	1014	1636	281.59	339.7	238.90	363.5
Market value per share (MV)	11.165	120.160	4099	8056	733.86	1319.39	776.08	1672

**Source:** Compiled from Annual Reports of companies and website of BSE

Table 4 depicts comparison of descriptive statistics of EPS, BVPS and MV in pre and post Ind-AS period. EPS range from Rs. -74.54 to Rs. 168.46 with mean Rs.45.63 and std. deviation 46.19 while BVPS varied from Rs.16.690 to Rs.1014 with mean Rs.281.59 and std. deviation 238.90. MV has varied from Rs.11.16 to Rs. 4099 with mean Rs.733.86 and std. deviation 776.80 in Pre Ind-AS period while EPS range from Rs. -63.41 to Rs 260.88 with mean Rs.54.01 and std. deviation 63.66. BVPS range from Rs.38.20 to Rs.1636 with mean Rs.339.7 and std. deviation 363.5. MV ranges from Rs.120.16 to Rs. 8056 with mean Rs. 1319.3 and std. deviation 1672 in post Ind-AS period.

*Correlation Matrix***Table 5: Pearson Correlation Coefficient**

Correlation	MV	EPS	BV
MV	<b>1</b>		
EPS	<b>0.793</b>	<b>1</b>	
BV	<b>0.712</b>	<b>0.723</b>	<b>1</b>

**Source:** Author's calculations

Table 5 depicts the correlation matrix of variables used in the study. The correlation between the variables is quite low as all the person correlation coefficient is less than 0.8. Market value (MV) have positive relation with EPS and BV of 0.793 and 0.712 respectively. As among themselves, EPS and BV have positive correlation of 0.723.

**Checking Multicollinearity****Table 6: Variance Inflation Factors (VIF)**

Variables	Un- Centered VIF	Centered VIF
C	2.055	NA
BV	5.136	2.537
EPS	4.589	2.236

**Source:** Authors calculations

Table 6 shows the value of un- centered and centered VIF of both independent variables. Centered VIF of both independent variables lie between 1 to 5 (2.537 and 2.236) which shows a moderate collinearity. This means that both independent variables have a moderate correlation between them, which is not an issue.

**Modelling of the framework:**

For analysis purpose, the Ohlson model was applied separately for pre period and post period. **The pre period model is represented as:**

$$MV_{1it} = a_0 + B_1 EPS_{1it} + B_2 BVPS_{1it} + e_{it}$$

where, MV1 is market value for pre period of company i at time t, EPS1 is Earnings per share for pre period of company i at time t, BVPS1 is Book value per share for pre period of company i at time t.

Using the OLS (Ordinary least square) and estimating the equation the following results are found:

**Table 7: Regression model result of Pre Ind-AS period**

Variables	Coefficient	Std. Error	t- statistics	p value
EPS1	6.554	1.955	3.351	0.0013
BVPS1	1.137	0.378	3.008	0.0036
C	114.44	104.522	1.094	0.2772
R- squared = 0.458		Durbin Watson stat.= 1.908		
Adj. R-squared = 0.443		F-statistics = 30.9		
Prob. ( f – stat.) = 0.000				

**Source:** Author's calculation

Resulted model equation is as under for pre Ind-AS period:

$$MV_1 = 114.4427 + 6.5541 * EPS_1 + 1.1375 * BVPS_1$$

**The post period model could be represented as:**

$$MV_2 = a_0 + B_1 EPS_{2it} + B_2 BVPS_{2it} + e_{it}$$

where, MV2 is market value for post period of company i at time t, EPS2 is Earnings per

share for post period of company i at time t, BVPS2 is Book value per share for post period of company i at time t.

**Table 8: Regression model result of post Ind-AS period**

Variables	Coefficient	Std. Error	t- statistics	Probability
EPS2	9.873	2.231	4.425	0.0000
BVPS2	2.657	0.390	6.801	0.0000
C	-116.888	109.18	-1.070	0.2879
R- squared = 0.834		Durbin Watson stat.= 2.193		
Adj. R-squared = 0.829		F-statistics = 183.85		
Prob. ( f – stat.) = 0.000				

**Source:** Author's calculation

$$\text{Estimated equation: } MV2 = C (1) + C (2)*EPS2 + C (3)*BVPS2$$

Resultant model equation:

$$MV2 = - 116.8886 + 9.8732*EPS2 + 2.6576*BVPS2$$

The above results show that coefficients of BV and EPS are positive in both pre and post Ind-AS period meaning significant association thus it can be concluded that both variables have influence on market price. The p-value (t stat.) shows that EPS has significant positive relation with market price. The p - value (t stat.) of BVPS is 0.0036 for pre period and 0.0000 for post period thus, it can be concluded that it also have significant positive relation with market price.

The Durbin Watson value is 1.908 in pre Ind-AS period indicating positive autocorrelation and 2.193 in post Ind-AS period indicating a negative serial correlation. Thus it can be inferred that the model is fit or good in both the period.

The adjusted R- Squared value is 44 % in pre- Ind-AS period while it is 82 % in post-Ind-AS period which means that the value is nearly doubled after adoption of Ind-AS. It is clear that both the independent variables explain or have influenced market price more in post period as compared to pre-period. In other words, market price is influenced by EPS and BVPS to the extent of 82% while the influence of other variables is just 18%.

The sig. value of f-stat. is found to be 0.000 which is below 0.05 level. Hence, the alternate hypothesis is accepted which means that transition to Ind-AS increases value relevance of EPS and BVPS in case of the selected companies during the study period.

### Conclusion

Accounting information serves information needs of various stakeholders particularly investors. Value relevance of this information is investigated in this study by considering the impact of new set of accounting standards i.e. Ind-AS. For this, impact of EPS and

BVPS on MV is determined to assess the value relevance. On the basis of foregoing findings, it is possible to conclude that the value relevance of accounting data has grown since the introduction of Ind-AS. Apart from other variables, the study finds that EPS and BV are both positively and substantially associated to value relevance i.e. market value of respective stock. Thus, it can be concluded that convergence to global standard has improved quality of financial statements and reports. Though the study has covered only top companies, it is reflection of value relevance of accounting information with regard to adoption of Ind-AS which has been converged with IFRS. Therefore, EPS and BV of the companies are important information for predicting the market value of stocks. Theoretically, it is also good for the whole stock market to ensure a sustainable and valid association between the earnings and market behaviour of the company's stock. Furthermore, it represents the fact that investors base their stock investing decisions on accounting data. Here, it is also suggested that this relation needs to be assessed in more depth such as BSE 100 and BSE 200 companies and sector - wise also. Further, a comparison between NSE and BSE may also be made in this regard. Along with this, the same perspective can be checked using consolidated and standalone financial statement with a view to analyse which statement seems to be more value relevant. The set of accounting measures might be enlarged by taking more variables such as assets, cash flows in addition to EPS and BVPS.

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# **Awareness and Customer Satisfaction with E-Banking Services in Rohtak City**

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## **Abstract**

The present study investigates the awareness and satisfaction level of E-banking services in Rohtak city. The study is based on primary data, collected by using a questionnaire. It was found customers use different e-banking services. Most of them use e-banking for fund transfer and are highly satisfied with the service. The customers agree that their banks are trustworthy, efficient and secure their private information but due to the less responsiveness or less effective design of Website reduce the customer satisfaction level. Governments, social organisations, and institutions must educate people about e-banking and also take care of cyber security measures in order to prevent situations like these from occurring.

**Keywords:** E-banking, Awareness, Customer satisfaction, Services quality

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## **Introduction**

A strong banking sector can be defined as the Economy's lifeline, so we can say that the present and future of the Economy depend upon the development of the banking sector, which cannot be achieved by following the traditional banking method. This encourages the banking industry to reconstruct its models, giving birth to the banking sector's automation and innovation of new technology, fastest service delivery, and consumer-centric policies by understanding their needs.

### **Concept of E-Banking**

Electronic banking, also known as virtual banking, cyber banking, and online banking, is termed as delivering the banking products and services to customers via the internet or can say online access to all traditional services of banking, including fund transfer, deposits, online loan, and online payments to the customers without any paper transactions. United Nations Conference on Trade and Development (UNCTAD) defines "Electronic banking refers to the development of retail and wholesale banking services over the internet. It involves individual and corporate clients and includes bank transfers, payment and settlement, documentary collections and credits, corporate and household lending, card business". A method that enables a consumer to execute personal or business banking transactions over an electronic or telecommunications network is referred to as "e-banking". Banks offer a feature that streamlines online banking and enables users to quickly access their bank accounts. To carry out tasks like fund transfers, checking account statements, utility bill payments, opening a bank account finding the closest ATM, obtaining information on financial products and services, applying for loans, and other things, e-banking entails using a personal computer, smart phone, laptop, or personal digital assistant. E-Banking helps increase productivity and cut the cost of transactions and many other benefits that increase the importance of "Electronic banking". FINLAND was the first country that took first step toward internet banking.

In INDIA, E-Banking was introduced in 1991 under the recommendation of the Narasimhan committee. In 1998, the Industrial Credit and Investment Corporation of India (ICICI) was the first who started E-Banking in India under the name INFINITY. In India, online banking services were initially launched in 1996 for a limited kind of services such as account information, and cash transfer between the branches. In the banking and corporate sectors, the brand term "INFINITY" became the magic word in 1997. The implication of IT brings a noticeable change in the working of the banking sector. Nowadays, all major banks provide internet services, making it easy to access everywhere.

As we know, RBI is the apex Bank of India. The Reserve Bank of India (RBI) regulated the Information Technology Act, 2000 for easy and safe access to E-Banking. It established

an internet banking WORKING GROUP to look into the many facets of the technology. The working group formed by the RBI emphasizes on three key characteristics of internet banking :-

- technology and security issues
- legal issues and
- Regulatory and supervisory issues.

According to the RBI, all recommendations made by this group should be adopted by all banks that offer e-banking services.

### **INITIATIVES BY GOVT. TO PROMOTE E-BANKING**

Department of Expenditure, Ministry of Finance has taken several steps to encourage Central Government Ministries and Departments to embrace mobile e-banking technologies for cashless or paperless transactions and e-payments, which are as follows-

- ✓ With effect from October 17, 2000, The Information Technology Act, 2000 was adopted to offer legal recognition to electronic transactions and other forms of electronic business
- ✓ RBI establishes a working group to regulate e-banking activities and provide guidelines to banks.
- ✓ The introduction of the Bharat QR code, Unified Payments Interface (UPI), National Unified USSD Platform (NUUP), Bharat Bill Payment System (BBPS), and Aadhaar Payment Bridge (APB).
- ✓ Under the CPGRAMS (The Centralized Public Grievances Redressal and Monitoring System) has resolved 4475 out of 4508 grievances satisfactorily.
- ✓ Strengthen the PFMS (Public Financial Management System), web-based online software.
- ✓ Development of the Generic Internal Audit Manual to guide the internal audit engagements by the CGA (Controller General of Accounts).
- ✓ The BHAVISHYA PORTAL has been used to process pension cases by this department and its subordinate entities.
- ✓ To educate and enhance customer knowledge regarding electronic payments, e-BAAT (electronic banking awareness and training) programs are conducted by the Reserve Bank of India (RBI).
- ✓ Establish E- Office, a mission mode project in a phased manner.

- ✓ Establishment of the Central Pension Accounting Office (CPAO), which ensures the paperless transaction by digital sign.

## **E-BANKING SERVICES**

E-banking, in simple terms, is a banking arrangement in which a customer can perform variety of online transactions that are completely safe and secure from beginning to end. E-Banking encouraged paperless or cashless transactions. It also comes with several privileges, obligations, and expenses. E-banking encompasses a wide range of services.

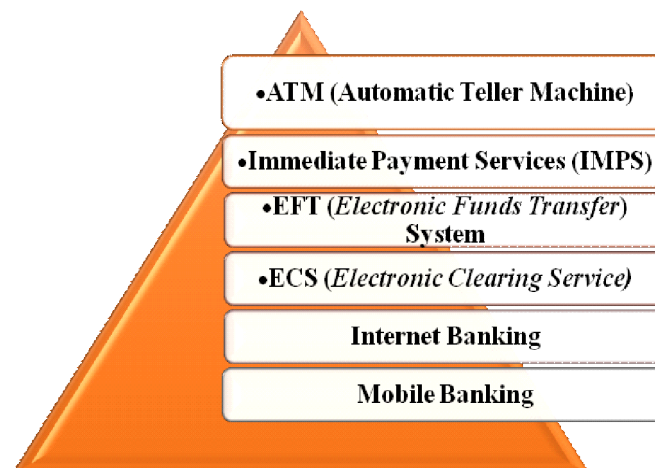
### ❖ **Automatic Teller Machine**

ATM is a specialized computer device that manages their customer's bank account holders' funds more conveniently. It enables the users to check account balances, make cash withdrawals or deposits, and print a record of account activities. Account or conduct other non-financial transactions without relying on a bank.

### ❖ **Immediate Payment Services (IMPS)**

IMPS is a reliable and real-time fund transfer system that delivers an instant, 24-hour interbank electronic fund transfer service that may be received in various ways. Plastic cards, which include the debit card and credit cards, prepaid cards etc.

**Figure 1: E-banking services**



### ❖ **EFT (Electronic Funds Transfer) System**

A common way to transfer money between accounts through a computer network is through an electronic funds transfer. While replacing paper-based transfers and human intermediaries, electronic funds transfers nevertheless provide the customer accessibility of conducting own banking. A personal identifying number (PIN) or

the login credentials for the customer's internet banking information is used to protect EFT transactions. This includes-

- ◆ National Electronic Fund Transfer (NEFT)
- ◆ Real Time Gross Settlement Systems (RTGS)
- ❖ **ECS (Electronic Clearing Service)**

Electronic Clearing Service is the way of transferring electronic funds from one bank account to another bank account. Most of time, institutions utilise it to send payments in bulk, including dividends, interest, salaries, pensions, and other types of payments. ECS can be used to pay loans as well as SIP investments and bills payments to phone, electricity, and water.

- ❖ **Internet Banking**

Banks and other financial institutions provide their customers a 24×7 service that enables them to perform various types of financial transactions remotely using their banking app. Internet banking helps the customer to check their account balances and their transaction history, auto bill payments, transfer money between accounts etc.

- ❖ **Mobile Banking**

Mobile banking, offered by the banks and financial institution which enables the customers to execute their financial transaction with the help of various mobile wallets. It is a 24\*7 service under which customer has to link their bank account with the app, can transfer the money, bill payments. Various mobile wallets are-

- ◆ Paytm wallet
- ◆ BHIM pay
- ◆ Amazon pay
- ◆ Google pay

## **OBJECTIVE OF THE STUDY**

- To study the relationship between demographic factors and customer adoption of internet banking
- To study the various internet banking services offered by Commercial banks and to assess the level of awareness and customer satisfaction with multiple e-banking services.

## **RESEARCH METHODOLOGY**

The present study is descriptive and based on the primary data. The principal purpose of

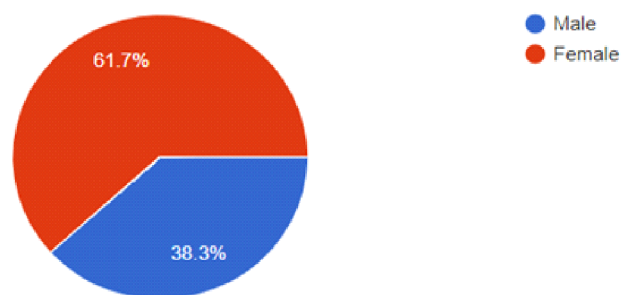
descriptive research is to study the satisfaction of consumers with selected e-banking services in Rohtak City. Data collection for this study involves using a questionnaire and has a sample size of 83. The questionnaire is filled out through a Google form. Information was collected, and analysis taking respondents' socioeconomic backgrounds into account, including the factor of education, age, and income.

## DATA ANALYSIS AND INTERPRETATION

### ● Gender of selected customers

The Researcher divided the respondents into male and female groups in order to analyse the success of the distribution of e-banking services among the chosen respondents and assess the efficacy of the research.

**Figure 2: Gender of Respondents**

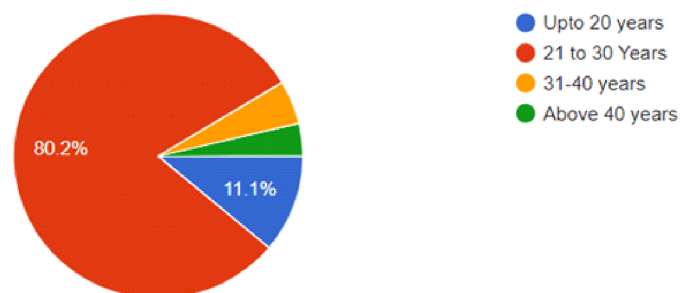


This Figure shows that 61.7% of the respondents are female and 38.3% are male. It is emphasized that the awareness and usage of e-banking is maximum with the females as compared to male respondents.

### ● Age of selected customers

Age is one of the elements impacting the level of awareness and satisfaction from e-banking services. The respondents from the sample are categorized into four age groups for analysis purposes-

**Figure 3: Age of Respondents**

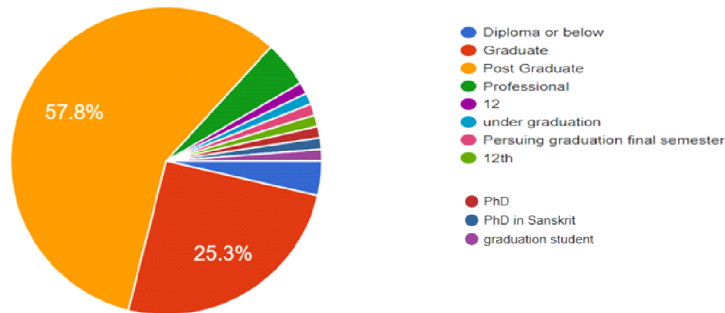


This Figure shows that 80.2% of respondents lie under the age of 21 to 30 years. Followed by 11.1% of respondents who fall under the age of up to 20 years. 4.9% are from 31 to 40 years and 3.7% respondents are belong into the last category that is above 40 years. This analysis shows that the maximum respondents are youngsters, using the e- banking services.

● **Educational qualification of selected customer**

Education is the main factor that affects the usage and awareness of e-banking services. It also includes a social change for a better standard of living. The Researcher categorized respondents into four groups based on their educational backgrounds: postgraduate, undergraduate, diploma, and professional.

**Figure 4: Educational Qualification of the Respondents**

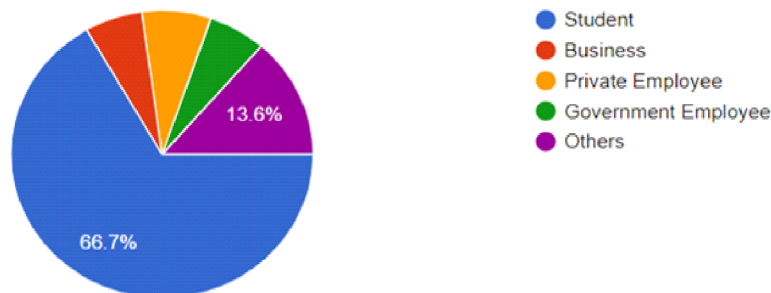


This Figure shows that the majority, 57.8% respondents are post graduate, and 25.3% respondents are Graduate. It is concluded that Post Graduate students & Graduate students are majorly using the electronic banking services.

● **Occupation status of selected customers**

Occupation is one factor that helps to know the perception of the respondents' usage and awareness of the e-banking services. The respondents are divided into four categories to ascertain their status: students, government personnel, business owners, independent contractors, and professionals.

**Figure 5: Occupation of the Respondents**



The Figure 5 represents that the majority, 66.7% respondents, are students that are using e-banking services, 6.2% of respondents are business owners, 7.4% of respondents are private employees, 6.2% of respondents are Government employees, and 13.6% respondents that are pursuing other activities. It is concluded that the maximum number of students are availing the e-banking services.

- **Monthly income of the selected customers**

Monthly income is a factor that decides the level of banking operations. Perception and satisfaction levels may differ according to the income of the individuals. Thus, the respondents' classification according to their income level is considered indispensable for this study.

**Figure 6: Monthly Income of the Respondents**

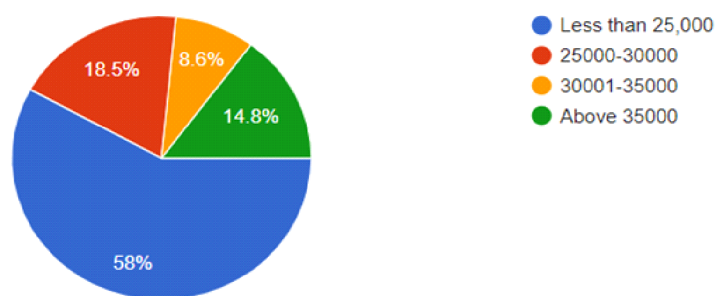
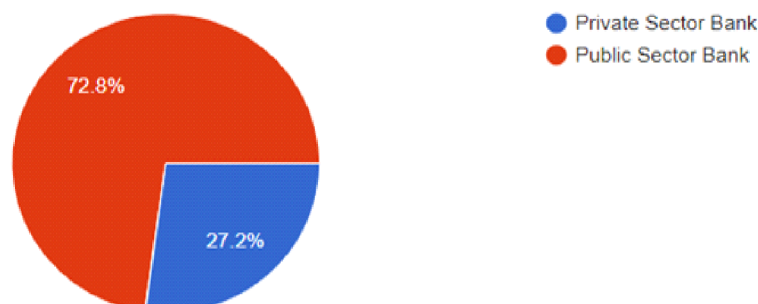


Figure 6 represents that the majority 58% respondents relay in the income group of less than 25000, 18.5% respondents are in 25000-30000 group, 8.6% respondents are in 30000-35000 income group and 14.8% respondents are relay in income group of above 35000.

- **Bank-wise classification of selected customers**

The study mainly focused on the level of customer satisfaction among customers of public and private sector banks.

**Figure 7: Distribution of Respondents in Private and Public Banks**



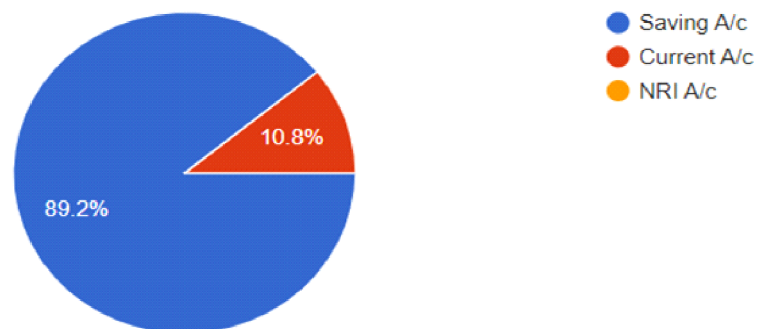
According to the above mentioned Figure, public sector banks are used by 72.8% of

respondents, while private banks are used by 27.2% of respondents.

- **Nature of bank account held by the selected customers**

Banks are offering different types of account. The nature and type of account influences the customer satisfaction from e-banking services of banks.

**Figure 8: Nature of Bank Account of Respondents**

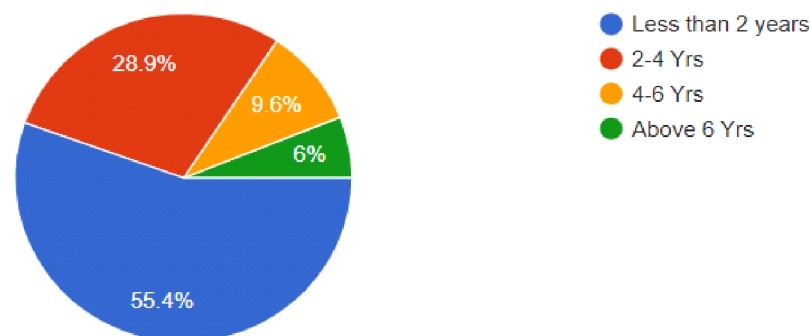


The Figure 8 shows that majority 89.2% Respondents are using saving account and 10.8% of respondents are using the current account.

- **Classification of selected customers based on their banking experiences**

Banking Experience plays a crucial part in the evaluation of the specified banking services and customer satisfaction. Depending on how long a consumer has kept their account open, their level of satisfaction may change and can be interpreted.

**Figure 9: Banking Experience of Respondents**



The Figure 9 represents that the 55.4% of respondents have less than two years of banking experience, 28.9 % of respondents have banking experience between the 2 to 4 years, 9.6% of respondents are using banking services between the 4 to 6 years, and 6% are using from above six years.



● **Analysis of Level Consumer Awareness and Consumer satisfaction regarding the E-Banking Services**

**(a) Level of awareness**

Consumer awareness reflects the current and potential consumer knowledge regarding the E -Banking services and how they are used. Increasing client awareness enables bankers to communicate their principles and methods. Making banking consumers informed helps to retain existing customers and draw in new ones. Awareness includes up-to-date and thorough understanding of the process, safety precautions, advantages, etc.

**Table 1: Represents the Frequency of Level of Awareness**

<b>Title</b>	<b>Unaware</b>	<b>Less Aware</b>	<b>Neutral</b>	<b>Aware</b>	<b>Highly Aware</b>
View account statements	1	3	11	20	48
Fund transfer	4	1	11	20	47
Withdrawal/Deposit by using ATM	3	3	4	16	57
Mobile /DTH Recharging	2	3	14	13	51
Online shopping & Online trading services	2	1	11	25	44
Payment of bills (payment of utility bills)	3	4	10	21	45
Pay direct and indirect taxes	10	15	7	26	25
Ticket Booking (train / Bus / Flight / Movies)	1	7	15	21	39
Request for Demand Draft/ pay order/ cheque book	8	13	18	17	27
TDS (Tax Deducted at Source) enquiry	13	19	18	15	18
Demat A/c or Share trading services	14	11	18	20	20
Real Time Gross Settlement (RTGS)	11	10	16	23	23
Electronic Clearance Service (ECS)	12	15	15	22	19
Religious Offerings /Donations	12	11	18	17	25
e-locker facility	18	9	14	18	24

**Source:** *Author's calculation.*

**Table 2: Represents the Percentage of Level of Awareness**

<b>Title</b>	<b>Unaware</b>	<b>Less Aware</b>	<b>Neutral</b>	<b>Aware</b>	<b>Highly Aware</b>
View account statements	1.2	3.6	13.3	24.1	57.8
Fund transfer	4.8	1.2	13.3	24.1	56.6
Withdrawal/Deposit by using ATM	3.6	3.6	4.8	19.3	68.7
Mobile /DTH Recharging	2.4	3.6	16.9	15.7	61.4
Online shopping & Online trading services	2.4	1.2	13.3	30.1	53
Payment of bills (payment of utility bills)	3.6	4.8	12	25.3	54.2
Pay direct and indirect taxes	1.2	18.1	8.4	31.3	30.1
Ticket Booking (train / Bus / Flight / Movies)	1.2	8.4	18.1	25.3	47
Request for Demand Draft/ pay order/ cheque book	9.6	15.7	21.7	20.5	32.5
TDS (Tax Deducted at Source) enquiry	13	22.9	21.7	18.1	21.7
Demat A/c or Share trading services	16.9	13.3	21.7	24.1	24.1
Real Time Gross Settlement (RTGS)	13.3	12	19.3	27.7	27.7
Electronic Clearance Service (ECS)	14.5	18.1	18.1	26.5	22.9
Religious Offerings /Donations	14.5	13.3	21.7	20.5	30.1
e-locker facility	21.7	10.8	16.9	21.7	28.9

*Source: Author's calculation.*

The above table shows that the consumers have highest level of awareness from (Withdrawal/Deposit by using ATM) are 57 frequencies, 68.7% and Mobile /DTH Recharging represents the 61.4% (frequency 51) level of awareness among the users, View account statements and Fund transfer shows 57.8% (frequency 48) and 56.6% (frequency 47)

By analysing the above table, we can conclude that the consumer has less level of awareness regarding the factor TDS (Tax Deducted at Source) enquiry with the 21.7% (frequency 18), Demat A/c or Share trading services with 24.1% (frequency 20), Electronic Clearance Service (ECS) with 22.9% (frequency 19), e-locker facility of 28.9% (frequency 24).

From the above table bankers can understand about the awareness level of the customers regarding the e- banking services given by the banks which facilitates the bank to make them aware regarding the services of the bank to motivate the e- banking in maximum.

#### **(b) Level of Customer Satisfaction**

This table shows the satisfaction level of selected customers from the e-banking activities.

**Table 3: Represents the Frequency of Level of Satisfaction**

<b>Title</b>	<b>Unsatisfied</b>	<b>Less Satisfied</b>	<b>Neutral</b>	<b>Satisfied</b>	<b>Highly Satisfied</b>
Withdrawing cash	1	2	5	29	46
Depositing of cash	0	3	7	37	36
Managing debit/credit cards	3	2	9	30	39
Payment of Utility bills	3	4	10	30	36
Request for a/c balance/ statement/ cheque book	3	3	11	24	42
Fund Transfer	2	2	6	25	48
Shopping at physical store/Online store	2	3	5	24	49
Brokerage and agency services	8	6	27	21	21
Other bank services	2	8	19	25	29

*Source: Author's calculation.*

The above table 3 represents the frequency of level of satisfaction among the consumers of e- banking which reflects that the consumer is more satisfy about the Withdrawing cash with the frequency 46, Shopping at physical store/online store with the frequency 49, highest satisfaction which reduce the need of cash, Fund Transfer with the frequency of 48. Consumer are less satisfied with the Brokerage and agency services with the frequency of 21 and other e-banking services provided by the banks shows the frequency of 29.

**Table 4: Represents the Percentage of Level of Satisfaction**

<b>Title</b>	<b>Unsatisfied</b>	<b>Less Satisfied</b>	<b>Neutral</b>	<b>Satisfied</b>	<b>Highly Satisfied</b>
Withdrawing cash	1.2	2.4	6	34.9	55.4
Depositing of cash	0	3.6	8.4	44.6	43.4
Managing debit/credit cards	3.6	2.4	10.8	36.1	47
Payment of Utility bills	3.6	4.8	12	36.1	43.4
Request for a/c balance/ statement/ cheque book	3.6	3.6	13.3	28.9	50.6
Fund Transfer	2.4	2.4	7.2	30.1	57.8
Shopping at physical store/Online store	2.4	3.6	6	28.9	59
Brokerage and agency services	9.6	7.2	32.5	25.3	25.3
Other bank services	2.4	9.6	22.9	30.1	34.9

*Source: Author's calculation.*

The above table represent the frequency of level of satisfaction among the consumers of e- banking which reflects that the consumer is more satisfy about the withdrawing cash represents the 55.4%, Shopping at physical store/Online store with the 59%, highest satisfaction which reduce the need of cash, Fund Transfer with the 57.8%. Consumer are less satisfied with the Brokerage and agency services with the 25.3% and other e-banking

services provided by the banks shows the 34.9%.

- **Analysis of Mean performance and Standard Deviation of dimensions of service quality for Customer Satisfaction**

This section reveals the mean score and standard deviation of various dimensions used in the study to analyse customer satisfaction. The result of this analysis is represented in two subsections; the first subsection shows the summated mean and standard deviation of all the dimensions of service quality (Reliability, Responsiveness, Fulfilment, Efficiency, Privacy/ Security, Website Design, and Customer Satisfaction & Loyalty). The next subsection reveals an individual mean score of every item present in the dimensions of service quality.

#### **Summated Mean Square**

Summated mean and standard deviation are computed based on respondents' feedback regarding the dimensions of service quality and customer satisfaction. The below table shows the summed mean and standard deviation for the independent variable Customer Satisfaction and the dependent Customer Satisfaction & Loyalty.

**Table 5: Dimensions of Service Quality of Customer Satisfaction**

<b>Variables</b>	<b>No. of Respondents</b>	<b>Mean</b>	<b>Standard Deviation</b>
Reliability	80	23.47	4.87
Responsiveness	80	19.29	3.81
Fulfilment	80	20.55	3.34
Efficiency	80	20.05	3.59
Privacy/ Security	80	20.28	3.59
Website Design	80	19.89	4.05
Customer Satisfaction	80	12.02	2.55
Customer Loyalty	80	20.03	4.32

*Source: Author's calculation.*

The table 5 represents that the Summated Mean score of the Reliability is very high (23.47), which represents that the respondents of the bank have trust on the quality of services and have a good perception related to the performance. Similarly, Fulfilment, Efficiency, Privacy/ Security and customer loyalty are around same (20.55), (20.05), (20.28) and (20.03). Respondents are moderate towards the factor Responsiveness and Website Design that is (19.29) and (19.89). The factor Customer Satisfaction has the lowest mean score (12.02). This conclude that the customer or respondents agrees that their bank are trustworthy, efficient and secure their private Information but due to the less responsiveness or less effective design of Website reduce the customer satisfaction level.

#### **Individual Mean Score of Dimensions of Service Quality**

The mean score is calculated and shown in the table below, along with the summed mean

and standard deviation, to help the reader understand the relative significance of each of the eight dimensions of service quality.

**Table 6: Represent the Reliability dimension of service quality**

No.	Title	Mean Score	Standard Deviation
1	Information that is provided on the web pages is accurate	4.02	0.86
2	Links are problem-free, accurate and the pages are downloaded quickly	3.82	1.02
3	I can rely on the web pages functioning properly	3.83	0.94
4	Information content and texts are easy to understand	4.10	0.95
5	The links that are provided by Internet banking is correct	3.82	0.99
6	Customers can rely on the Information given are not being misused	3.86	1.10

*Source: Author's calculation.*

The mean score and standard deviation of Reliability dimension of service quality proves that the respondents can trust the bank. The standard deviation of all the factors under this particular dimension indicates that the respondent's feedback differed across the sample. The above table shows that, in all the six factors of Reliability, the highest Mean Score represents the respondent's positivity that the "Texts and informational items are simple to understand". With a Mean value (4.10) and a Standard Deviation of (0.95). Respondents with the Mean score (4.02), Standard deviation (0.86) felt that the Information that is provided on the web pages is accurate. Similarly, respondents were likely to believe that the Links are problem-free, accurate and the pages are downloaded quickly and web page are functioning properly. Respondents believed that their banks do not misuse the customer information with mean score of 3.86, and the standard deviation of 1.10.

## CONCLUSION

Every person needs a bank account in order to use financial services and get government subsidies. Because they must use any e-banking services, bank account holders subsequently become e-banking customers. To truly benefit from e-banking services, people should be familiar with computers or mobile devices. Customers use intermediaries to help them use e-banking services, and those intermediaries charge extra for their assistance on top of the e-banking fees. Governments, social organisations, and institutions must educate people about using computers and mobile devices for e-banking in order to prevent situations like these from occurring. In addition, a streamlined, multi-channel delivery system with total control over the transactions is being designed to make banking easier. In the current competitive environment, providing speed and ease is essential. It must guarantee security,

Additionally, e-banking services maintain anonymity and security. Additionally, the most recent electrical Internet connectivity is required for bank product and service delivery channels. The mobile telecommunications service providers and internet service providers must collaborate they hold hands with the bankers to guarantee premium service at a reasonable price.

In the dynamic environment customers' expectations are evolving. Bankers must be well informed of the evolving needs and requirements of all consumer segments when creating innovative electronic banking services. Since these e-delivery channels are intended for bank customers, it is necessary to regularly assess their level of satisfaction.

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# **Intergenerational Occupational Mobility among Balmiki Caste: A Case Study of Silani Pana Zalim Village of Jhajjar District, Haryana**

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## **Abstract**

Occupational mobility means the change in occupation from one generation to the next generation. It modifies the labour market and brings changes to the socio-economic profile of individuals or a family. Based on primary data, the present study analyzes the individual household wise three generational occupational mobility of Balmiki Caste in the village of Silani Pana Zalim of Jhajjar district, Haryana. The 'transition' or 'mobility' matrix is applied for three pairs; grandfather to father, father to respondent (son) and grandfather to respondent to measure the extent of mobility of individual household in the village. It is found that grandfather of the respondent was engaged in nine occupations among Balmiki caste. About 85 per cent respondent's grandfather engaged in five occupations, like sweeping, livestock rearing, worked as chowkidar/peon, agricultural labour and masonry labour. It is observed that father of the respondent was engaged in eight occupations and about 94 per cent are engaged in five occupations, like sweeping, worked as chowkidar/peon, livestock rearing, and masonry labour. Further, it is recorded that the respondents involved in 14 occupations and nearly four-fifth are engaged in five occupations such as sweeping, masonry labour, defense, agricultural labour and helper. Rest of the nine respondents are engaged in one occupation each covering 2.13 per cent. It may be noted that the households engaged in the primary activities have been decreased from 34 per cent to four per cent from grandfather to respondent. On the other hand, the occupations related to tertiary activities have been increased from 62 per cent to 96 per cent from grandfather to respondents. Further, it is recorded that the maximum 'mobility' from grandfathers to fathers' occupations in agricultural labour, basket maker, defense and road constructor. It is also noticed that 13 per cent respondents have adopted the father and grandfather traditional occupation of sweeping in the village.

**Keywords:** Occupational Mobility, Social Mobility, Upward and Downward Mobility, Immobility, Transition Matrix, Intergenerational, Primary, Secondary and Tertiary Activities

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## Introduction

Occupation is considered a good indicator of social status, income, and living standards in the literature on social mobility (Weeden, 2002). The occupation indicates that whether a particular caste or group of population is engaged in primary, secondary or tertiary occupation, which is positive index of development. Miller (1960) has defined the concept of occupational mobility, "as the movement from one occupational category to another, that is consists of manual to non-manual, semi-skilled to skilled and some rank, which consists with the social and cultural prestige. It may happen in two different directions, horizontally and vertically. Vertical mobility means a change in the position between social levels. Horizontal mobility means a change in the position at the same social level".

Many scholars have defined the concept of social mobility. In 1927, Sorokin defined social mobility as, "any transition of an individual or social object or value-anything that has been created or modified by human activity-from one social position to another". Barber (1957) explained that "the term social mobility has been in use for 'movement, either upward or downward, between higher or lower social classes; or more precisely, movement between one relatively full time, functionally significant social role and another that is evaluated as either higher or lower'. This movement is to be conceived as a process occurring overtime, with individuals (and their family units) moving from one role and social class position to another because of what they have done or what has happened to them in various kinds of social interaction, such as in their family or in their work organization, or during war or socio-economic expansion in their society".

Lipset and Bendix (1959) defined the concept as, "the process by which individuals move from one position to another in society-positions which by general consent has been given specific hierarchical values". Further, Hawkes (1972) explained the inter-generational mobility as, "the difference between father's status and son's eventual status. The intra-generational mobility is related with the change in social position that happens during a person's lifetime. On the other hand, inter-generational mobility is a change in social position that happens over multiple generations". Reddy and Swaminathan (2014) described that the study of "occupational mobility can help identify the extent to which the process of economic development and modernization has broken traditional hierarchies and caste and class barriers to occupational choice".

Recently, Chamar and Arya (2015) analyzed the caste wise occupational mobility in village Sisar Khas. Based on 178 households from 10 selected castes, the three generational occupational mobility have been identified by the authors. The grandfather, father and respondent was engaged in 12, 13 and 18 occupations respectively. They observed that "the highest occupational mobility is recorded in Dhanak caste from grandfather to father

and the lowest mobility is found in Jat from father to respondent (son) and from grandfather to respondent among Kumhar and Gujjar castes. The occupational mobility is observed from traditional occupations to tertiary activities among all the social groups in the village Sisar Khas". After a year, Arya (2016) also studied the occupational mobility among Dhanak caste in rural Haryana. She collected the primary data from 320 households of selected 15 villages of five districts. As per field survey, respondent (son) engaged in 33 occupations, father and grandfather are engaged in 24 and 21 occupations respectively. She identified that "many new occupations have been adopted by the respondents like shop keeping, defense, driving, hawking, ear cleaning, waiter, factory worker, plumber, painting, tailoring etc. the author also found that the occupational mobility has been diverted from traditional activities to other tertiary activities among Dhanak caste in rural Haryana".

Thus, the present research work intends to analyze the three-generation occupational mobility from grandfather to father and father to respondent (son) among the Balmikis, a scheduled caste community in the village Silani Pana Zalim of Jhajjar district, Haryana.

### **Objectives of the Study**

The main objectives of the present study are;

1. to study the occupations of individual household of Balmiki Caste in Silani Pana Zalim village of Jhajjar district.
2. to analyze the three-generational occupational mobility of Balmiki Caste in Silani Pana Zalim village of Jhajjar district of Haryana.

### **Study Area**

The village Silani Pana Zalim is the part of Jhajjar district in Haryana state. It extends from 28° 57' 15" north latitude and 76° 16' 05" east longitude. It is situated about 6 kilometers away from Jhajjar town on the National Highway 352. It is surrounded by the village Jhajjar (Rural) on the North, Sikanderpur on the East, Silani Pana Keso on the South, and Babra on the West (Fig.1).

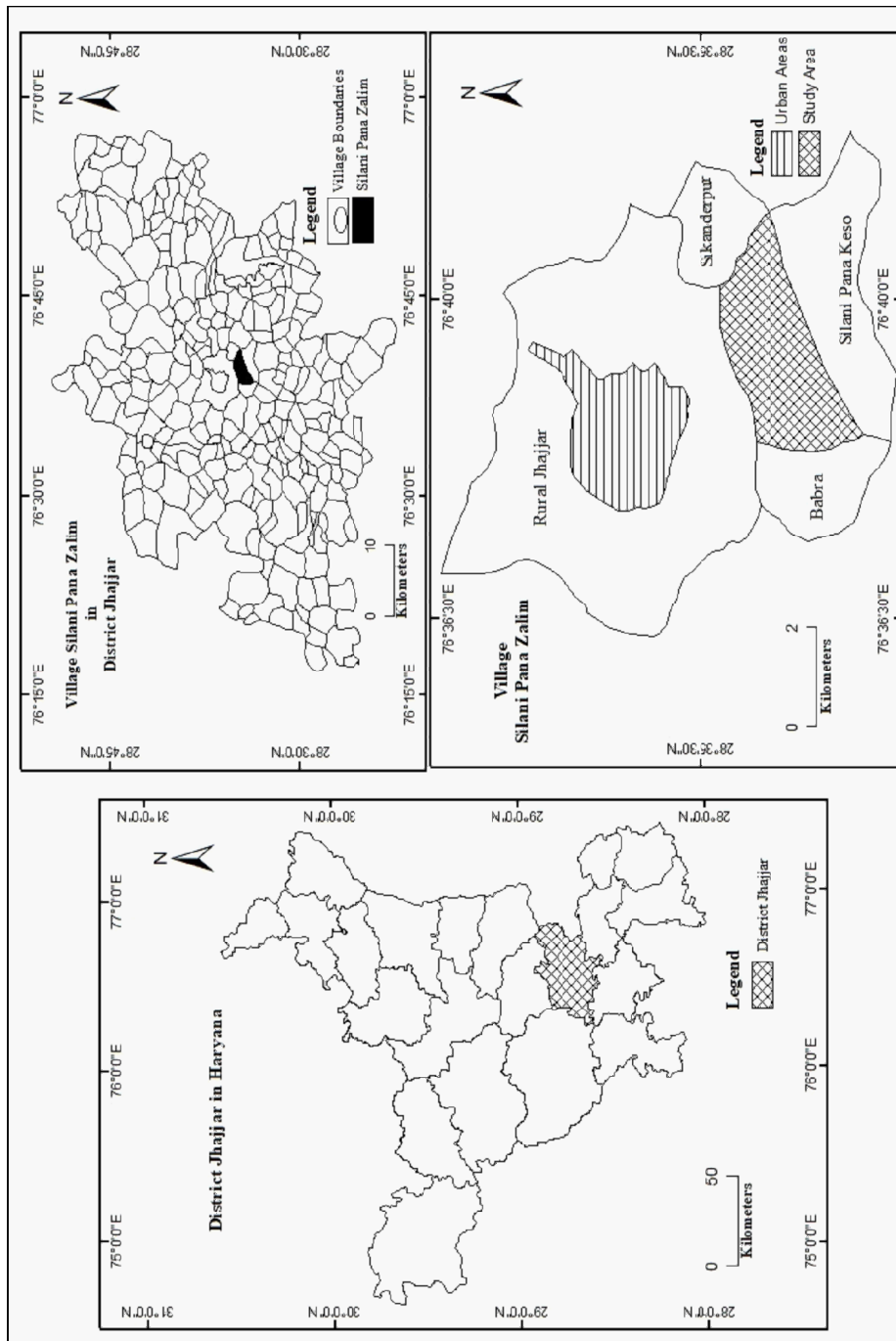


Fig. 1

### **Different Name of Balmiki Caste**

Singh (1994) elaborated that the Balmiki community can be found throughout the state of Haryana, where they are locally known by various names mentioned like Balmik; Bhangi; Bhangi/Chuhra; Chura; Halalkhor; Jamadar; Khakrobe; Lalbegi; Mehtar and Valmiki etc.

### **Source of Data and Research Methodology**

The study is based on primary data collected on the bases of structured scheduled and personal interview conducted from the head of the household. The primary data of all the 47 households (100 per cent) belonging to Balmiki caste was collected from the village Silani Pana Zalim of Jhajjar district during the period of Feb-March, 2022. The number of households engaged in various occupations has been calculated in per cent in proportion to total households of Balmiki caste among grandfather, father, and respondent (son) separately (three generations). Finally, the 'transition' or 'mobility' matrix developed by Motiram and Singh (2012) is applied for three pairs; grandfather to father, father to respondent (son) and grandfather to respondent to identify the extent of mobility of individual household (frequency) in the village and shown with the help of tables.

### **Population Characteristics**

The total population based on sample households is 234 persons comprising 130 males and 104 females. The total population of 0 to 6 years is 17 persons which comprise six males (35.3 per cent) and 11 females (64.7 per cent). More than 6 years population is 217 persons which included 124 males (57.1 per cent) and 93 females (42.9 per cent). The overall literacy rate of the respondents among Balmiki caste in the village is recorded nearly 76 per cent at the time of survey. The male literacy rate in the village is as high as 80 per cent while among female it is about 70 per cent. The work participation rate of the Balmiki Caste is recorded 42.3 per cent. So far as sex ratio is concerned, there are 800 females per 1000 males in the village. The average size of household in the village is 5.0 persons. The population characteristic is expressed in table 1.

### **Occupations of Grandfather, Father, and Respondent (Son)**

As per field survey, it is found that grandfather of the respondent was engaged in nine occupations among Balmiki caste in village Silani Pana Zalim. About 85 per cent respondent's grandfather engaged in five occupations. The highest number of respondent's grandfather engaged in traditional occupation of sweeping (38 per cent), and it is followed by livestock rearing (23 per cent), worked as chowkidar/ peon (11 per cent), agricultural labour (6 per cent) and masonry labour (6 per cent). On the other hand, nearly 15 per cent households were engaged in rest of the four occupations like piggery, basket maker, defense and road constructor as shown in table 2 (A). Further, it is recorded that more than three-

fifth were engaged in tertiary activities and about one-third in primary activities.

Further, it is observed that father of the respondents was engaged in various eight occupations and about 94 per cent are engaged in five occupations, like sweeping (40 per cent), defense (17 per cent), worked as chowkidar/ peon (15 per cent), livestock rearing (11 per cent), and masonry labour (11 per cent). On the other hand, approximately six per cent respondent's father engaged in only three occupations like piggery, driving and coolie which covers 2 per cent each as expressed in table 2 (B). It is interested to note that the occupations of tertiary activities have been increased from 62 to 87 per cent. Based on primary data, the respondents involved in 14 occupations and nearly four-fifth are engaged in five occupations. About half of the respondents are engaged in the traditional occupation of sweeping. It is followed by masonry labour (15 per cent), defense (8 per cent), agricultural labour (4 per cent) and helper (4 per cent). Nearly one-fifth respondents are engaged in rest of the nine occupations covering one occupation each by 2 per cent.

It may also be noted that the households engaged in the primary activities have been decreased from 34 per cent to four per cent from grandfather to respondent. Whereas, the occupations related to tertiary activities have been increased from 62 per cent to 96 per cent from grandfather to respondent as highlighted in table 2 (C).

Mobility generally refers to the process of which individuals, families, households, or other categories of people move within or between social strata in a society (Lillard and Wills, 1994). The occupational mobility between grandfather, father, and respondent (son) generation has been discussed in the forthcoming text.

### **Occupational Mobility from Grandfather to Father**

Based on survey, it is recorded that about 46 per cent frequencies transit in upward status in three occupations like; masonry labour, defense, and coolie. On the other hand, 18 per cent frequencies moved in the downward status by adopting the occupation of sweeping from the occupation of livestock rearing. Similarly, one-third frequencies recorded moved upward and two-third downward in the occupation of masonry labour and sweeping respectively from the agricultural labour. Likewise, half of the frequencies moved upward from piggery to sweeping. All the frequencies of basket maker moved in upward site to chowkidar/peon and defense occupations. Nearly, two-fifth of the frequencies moved in upward from sweeping to livestock rearing, masonry labour, defense and driving occupations. It is noted that immobility has been observed in the occupation of chowkidar/peon from grandfather to father' occupation.

About one- third frequencies of masonry labour moved in upward and downward mobility to chowkidar/peon and sweeping respectively. Cent per cent frequencies related

to defense has downward transit to sweeping and frequencies of road constructor have moved in upward by adopting the profession of defense from grandfather to fathers' occupation (Table 3).

**Table 1**

**District Jhajjar: Village Silani Pana Zalim**

**Population Characteristics of Total Households among Balmiki Caste**

<b>Population Characteristics</b>	<b>Balmiki Caste</b>	
Number of Total Households	47	100.0
Total Population	234	100.0
Male Population	130	55.56
Female Population	104	44.44
Total Population (0-6 Yrs)	17	07.26
Male Population (0-6 Yrs)	06	35.29
Female Population (0-6 Yrs)	11	64.71
Total Population (> 6 Yrs)	217	92.74
Male Population(> 6 Yrs)	124	57.14
Female Population(> 6 Yrs)	93	42.86
Total Literate Persons	164	75.58
Male Literates	99	79.84
Female Literates	65	69.89
Total Workers	99	42.30
Sex Ratio (Female/1000 Males)	800	
Child Sex Ratio (Female/1000 Males)	1833	
Household Size (Persons/Household)	5.0	

**Source:** *Field Survey, 2022. Compiled by Authors.*

**Table 2**  
**District Jhajjar: Village Silani Pana Zalim**  
**Occupations of Grandfather, Father, and Respondents (Son) among Balmiki Caste**

Sr. No.	Name of the Occupation	Grandfather (A)		Father (B)		Respondent (C)		Immobility (Three Generational)	
		HHs	(%)	HHs	(%)	HHs	(%)	HHs	(%)
1.	Livestock Rearing	11	23.40	05	10.64	00	00.00	00	00.00
2.	Agricultural Labour	03	06.38	00	00.00	02	04.26	00	00.00
3.	Piggery	02	04.26	01	02.13	00	00.00	00	00.00
<b>(A) Primary Activities</b>		<b>16</b>	<b>34.04</b>	<b>06</b>	<b>12.77</b>	<b>02</b>	<b>04.26</b>	<b>00</b>	<b>00.00</b>
<b>Primary Occupations</b>		<b>03</b>	<b>-</b>	<b>02</b>	<b>-</b>	<b>01</b>	<b>-</b>	<b>00</b>	<b>-</b>
4.	Basket Maker	02	04.26	00	00.00	00.00	0.00	00	00.00
<b>(B) Secondary Activities</b>		<b>02</b>	<b>04.26</b>	<b>00</b>	<b>00.00</b>	<b>00.00</b>	<b>0.00</b>	<b>00</b>	<b>00.00</b>
<b>Secondary Occupations</b>		<b>01</b>	<b>-</b>	<b>00</b>	<b>-</b>	<b>00</b>	<b>-</b>		
5.	Sweeping	18	38.30	19	40.43	23	48.94	06	12.76
6.	Chowkidar/Peon	05	10.64	07	14.89	00	00.00	00	00.00
7.	Masonry Labour	03	06.38	05	10.64	07	14.89	00	00.00
8.	Defense	02	04.26	08	17.02	04	08.52	00	00.00
9.	Road Constructor	01	02.13	00	00.00	00	00.00	00	00.00
10.	Driving	-	-	01	02.13	01	02.13	00	00.00
11.	Coolie	-	-	01	02.13	00	00.00	00	00.00
12.	Helper	-	-	-	-	02	04.26	00	00.00
13.	Band Master	-	-	-	-	01	02.13	00	00.00
14.	Fruit/ Vegetable Seller	-	-	-	-	01	02.13	00	00.00
15.	Earth Worker	-	-	-	-	01	02.13	00	00.00
16.	Nursery Growers	-	-	-	-	01	02.13	00	00.00
17.	Supervisor	-	-	-	-	01	02.13	00	00.00
18.	Man Power Construction	-	-	-	-	01	02.13	00	00.00
19.	Clerk	-	-	-	-	01	02.13	00	00.00
20.	Teaching	-	-	-	-	01	02.13	00	00.00
<b>( C )Tertiary Activities</b>		<b>29</b>	<b>61.70</b>	<b>41</b>	<b>87.23</b>	<b>45</b>	<b>95.74</b>	<b>06</b>	<b>12.76</b>
<b>Tertiary Occupations</b>		<b>05</b>	<b>-</b>	<b>06</b>	<b>-</b>	<b>13</b>	<b>-</b>	<b>01</b>	<b>-</b>
<b>Total Occupations</b>		<b>09</b>		<b>08</b>		<b>14</b>		<b>01</b>	
<b>Total Households</b>		<b>47</b>	<b>100.0</b>	<b>47</b>	<b>100.0</b>	<b>47</b>	<b>100.0</b>	<b>06</b>	<b>12.76</b>

**Source:** Field Survey, 2022. Compiled by Authors. Note: HHs; Number of Households.

Table 3  
District Jhajjar  
Village Silani Pana Zalim: Occupational Transition Matrix of Individual Household  
From Grandfather to Father among Balmiki Caste

Occupations of Grandfather's	Frequencies of (Grandfather's)	Occupations of Father's (Per cent)												
		Livestock Rearing	Agricultural Labour	Piggery	Basket Maker	Sweeping	Chowkidar/ Peon	Masonry Labour	Defense	Road Constructor	Driving	Coolie		
Livestock Rearing	11	36.3	-	-	-	18.2	-	-	09.1	27.3	-	-	-	09.1
Agricultural Labour	03	-	00.0	-	-	66.7	-	-	33.3	-	-	-	-	-
Piggery	02	-	-	50.0	-	50.0	-	-	-	-	-	-	-	-
Basket Maker	02	-	-	-	00.0	-	50.0	-	-	50.0	-	-	-	-
Sweeping	18	05.6	-	-	-	61.1	-	-	11.1	16.6	-	05.6	-	-
Chowkidar/ Peon	05	-	-	-	-	-	1000	-	-	-	-	-	-	-
Masonry Labour	03	-	-	-	-	33.3	33.3	-	33.3	-	-	-	-	-
Defense	02	-	-	-	-	100.0	-	-	-	00.0	-	-	-	-
Road Constructor	01	-	-	-	-	-	-	-	-	100.0	00.0	-	-	-
Driving	00	-	-	-	-	-	-	-	-	-	-	-	-	-
Coolie	00	-	-	-	-	-	-	-	-	-	-	-	-	-
Frequencies of (Father's)	47	05	00	01	00	19	07	05	08	00	01	01	01	01

Source: Field Survey, 2022. Compiled by Authors.

Note: Green Colour indicates Upward Mobility; Red Colour Indicates Downward Mobility and Yellow Colour indicates No Mobility.



**Table 4**  
**District Jhajjar: Village Silani Pana Zalim**  
**Immobility and Mobility from Grandfather to Father among Balmiki Caste**

Occupations of Grandfather's	HHs	Frequency of Immobility	(%)	Frequency of Mobility	(%)	Shifted to Father's Occupations
Livestock Rearing	11	04	36.3	07	63.7	Sweeping (2), Masonry Labour (1), Defense (3) and Coolie (1).
Agricultural Labour	03	00	00.0	03	100	Sweeping (2) and Masonry Labour (1).
Piggery	02	01	50.0	01	50.0	Sweeping (1).
Basket Maker	02	00	00.0	02	100	Chowkidar/Peon (1) and Defense (1).
Sweeping	18	11	61.1	07	38.9	Livestock Rearing (1), Masonry Labour (2), Defense (3) and Driving (1).
Chowkidar/Peon	05	05	100	00	00.0	Nil
Masonry Labour	03	01	33.3	02	66.7	Sweeping (1) and Chowkidar/Peon (1).
Defense	02	00	00.0	02	100	Sweeping (2).
Road Constructor	01	00.	00.0	01	100	Defense (1).
Driving	-	-	-	-	-	-
Coolie	-	-	-	-	-	-
<b>Village Silani Pana Zalim (%)</b>	<b>47</b>	<b>22</b>	<b>46.8</b>	<b>25</b>	<b>53.2</b>	<b>Livestock Rearing (2.1), Sweeping (17.0), Chowkidar/Peon (4.3), Masonry Labour (8.6), Defense (17.0), Driving (2.1) and Coolie (2.1).</b>

Source: Field Survey, 2022. Compiled by Authors. Note: HHs: Number of Households.

Table 4 represents the frequencies (households) of immobility and mobility of occupations among Balmiki caste from grandfather to father. About 47 per cent frequencies recorded in the category of immobility, because they end up their occupation in same category. More than half of the frequencies have changed their occupations into various, another occupations such as livestock rearing (2 per cent), sweeping (17 per cent), chowkidar/peon (4 per cent), masonry labour (8 per cent), defense (17 per cent) driving (2 per cent) and coolie (2 per cent) from grandfather to fathers' occupation. Further, it may be also noted that the largest number of frequencies moved downward from the occupations of livestock rearing, agricultural labour, piggery, masonry labour and defense to traditional occupation of sweeping; and same percentage of share moved upward from livestock rearing, basket maker, sweeping and road constructor by adopting the respectable jobs in department of defense.

#### **Occupational Mobility from Father to Respondent (Son)**

The occupational mobility of second-generation pairs (father to son) has been shown in table 5. This table represents the transition movement in upward and downward from fathers' occupations to son occupations. According to survey, it is recorded that two-fifth frequencies of respondent moved upward in agricultural labour and earth worker, as compared to their father's occupation and three-fifth moved in downward status by adopting the occupation of sweeping from livestock rearing. Cent per cent frequencies of piggery occupations moved in upward mobility and they involved in the self-occupied profession like fruit vegetable seller. Similarly, more than two-fifth of the frequencies of sweeping transit to upward in masonry labour, defense, nursery growers, supervisor, and teaching. It may be noted that nearly three-fifth of the frequencies have not changed their occupation from fathers to son. It has also been observed that immobility between father to respondent generation is quite high. About 29 per cent frequencies moved in upward direction by adopting the occupation of driving and helper. Rest of the 71 per cent frequencies moved in downward mobility and they involved in the occupations of agricultural labour, sweeping, and masonry labour, from chowkidar/peon. Likewise, three-fifth frequencies of respondent moved in upward from masonry labour to defense, bandmaster, and clerk from fathers' occupation to respondent. However, two-fifth of the frequencies moved downward by adopting the traditional occupation of sweeping. Amongst the fathers who involved in the respectable job in the department of defense their son moved in downward with adopting the traditional occupation of sweeping, masonry labour, helper, and manpower construction. Cent per cent frequency of fathers related to driving moved to upward in the occupation of defense. All the frequencies involved in the profession of coolie moved downward by adopting the occupation of sweeping from father to respondent.

Table 6 shows the immobility and mobility of occupations between father and respondent. Approximately, three-fourth of the frequencies has changed their occupations as compared to fathers' occupation such as sweeping, masonry labour, defense, agricultural labour, helper, driving, band master, fruit vegetable seller, earth worker, nursery growers, supervisor, manpower construction, clerk and teaching. Further, it may also be noted that the maximum frequencies of respondent moved downward from livestock rearing, chowkidar/peon, masonry labour, defense, and coolie by adopting the occupation of sweeping among father to son generations.

### **Occupational Mobility from Grandfather to Respondent (Son)**

The next pair transition mobility between grandfather to respondent has been shown in the table 7. The table reveals that more than one-fourth of the frequencies moved upward by adopting the occupations of agricultural labour, masonry labour and earth-workers; whereas nearly three-fourth of the frequencies transit into sweeping occupation from livestock rearing. Further, more than two-third of the frequencies moved upward by selecting the occupations of masonry labour and defense from agricultural labour. Cent per cent respondent frequencies of piggery transit upward to fruit vegetable seller and nursery growers. Half of the frequencies moved upward to masonry labour and same share of percentage moved downward to sweeping from basket maker.

Similarly, more than half of the frequencies of sweeping moved to upward in masonry labour, defense, helper, band master, supervisor, manpower construction and clerk, from grandfather to respondent. Likewise, two-fifth frequencies of respondent moved upward from chowkidar/peon to driving, and helper. However, three-fifth of the frequencies moved downward by adopting the occupations of agricultural labour and sweeping. About one-third frequencies moved upward the profession of teaching and same share of percentage moved downward to sweeping from the occupation of masonry labour. Cent per cent frequencies of respondent related to defense have downward mobility in the occupation of sweeping. All the frequencies of road construction moved in upward by adopting the occupation of defense from grandfathers to respondent.

Table 5  
District Jhajjar  
Village Silani Pana Zalim: Occupational Transition Matrix of Individual Household  
From Father to Respondent (Son) among Balmiki Caste

Occupations of Father's	Occupations of Respondent's (Per cent)																						
	Frequency of (Father's)	Livestock Rearing	Agricultural Labour	Piggery	Basket Maker	Sweeping	Chowkidar/Peon	Masonry Labour	Defense	Road Constructor	Driving	Coolie	Helper Pvt Company	Band Master	Fruit Vegetable Seller	Earth Worker	Nursery Growers	Supervisor Pvt Company	Man Power	Construction	Clerk	Teaching	
Livestock Rearing	05	00.0	20.0	-	-	60.0	-	-	-	-	-	-	-	-	-	20.0	-	-	-	-	-	-	-
Agricultural Labour	00	-	-	-	-	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-
Piggery	01	-	-	00.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Basket Maker	00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sweeping	19	-	-	-	-	57.8	21.0	05.3	-	-	-	-	-	-	-	-	05.3	05.3	-	-	-	05.3	-
Chowkidar/Peon	07	-	14.3	-	-	42.8	00.0	14.3	-	14.3	-	-	14.3	-	-	-	-	-	-	-	-	-	-
Masonry Labour	05	-	-	-	-	40.0	00.0	20.0	-	-	-	-	-	20.0	-	-	-	-	-	-	20.0	-	-
Defense	08	-	-	-	-	37.5	25.0	12.5	-	-	-	-	12.5	-	-	-	-	-	12.5	-	-	-	-
Road Constructor	00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Driving	01	-	-	-	-	-	-	-	-	00.0	-	-	-	-	-	-	-	-	-	-	-	-	-
Coolie	01	-	-	-	-	100	-	-	100	-	00.0	-	-	-	-	-	-	-	-	-	-	-	-
Helper Pvt Company	00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Band Master	00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fruit Vegetable Seller	00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Earth Worker	00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nursery Growers	00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Supervisor Pvt Company	00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Man Power Construction	00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Clerk	00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Teaching	00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Frequencies of Respondent (Son)	47	00	02	00	00	23	00	07	04	00	01	00	02	01	01	01	01	01	01	01	01	01	01

Source: Field Survey, 2022. Compiled by Authors.

Note: Green Colour indicates Upward Mobility; Red Colour Indicates Downward Mobility and Yellow Colour indicates No Mobility.

**Table 6**  
**District Jhajjar: Village Silani Pana Zalim**  
**Immobility and Mobility from Father to Respondent (Son) among Balmiki Caste**

Occupations of Father's	HHs	Frequency of Immobility	(%)	Frequency of Mobility	(%)	Shifted to Respondent's Occupations
Livestock Rearing	05	00	00.0	05	100	Agricultural Labour (1), Sweeping (3), and Earth Worker (1).
Agricultural Labour	00	00	00.0	00	00.0	Nil
Piggery	01	00	00.0	01	100	Fruit/ Vegetable Seller (1).
Basket Maker	00	00	00.0	00	00.0	Nil
Sweeping	19	11	57.8	08	42.2	Masonry Labour (4), Defense (1), Nursery Growers (1) Supervisor Pvt. Company (1) and Teacher (1).
Chowkidar/Peon	07	00	00.0	07	100	Agricultural Labour (1), Sweeping (3), Masonry Labour (1), Driving (1) and Helper Pvt. Company (1).
Masonry Labour	05	00	00.0	05	100	Sweeping (2), Defense (1), Band Master (1) and Clerk (1).
Defense	08	01	12.5	07	87.5	Sweeping (3), Masonry Labour (2), Helper Pvt. Company (1), Man Power Construction (1).
Road Constructor	00	00	00.0	00	00.0	Nil
Driving	01	00	00.0	01	100	Defense (1).
Coolie	01	00	00.0	01	100	Sweeping (1).
<b>Village Silani Pana Zalim (%)</b>	<b>47</b>	<b>12</b>	<b>25.5</b>	<b>35</b>	<b>74.5</b>	<b>Agricultural Labour (4.3), Sweeping (25.5), Masonry Labour (14.9), Defense (6.4), Driving (2.1), Helper Pvt. Company (4.3), Band Master (2.1), Fruit/Vegetable Seller (2.1), Earth Worker (2.1), Nursery Growers (2.1), Supervisor Pvt. Company (2.1), Man Power Construction (2.1), Clerk (2.1) and Teacher (2.1).</b>

Source: Field Survey, 2022. Compiled by Authors. Note: HHs; Number of Households.

Table 7  
District Jhajjar  
Village Silani Pana Zalim: Occupational Transition Matrix of Individual Household  
From Grandfather to Respondent (Son) among Balmiki Caste

Occupations of Grandfather's	Frequencies of (Grandfather's)	Occupations of Respondent's (Per cent)																					
		Livestock Rearing	Agricultural Labour	Piggery	Basket Maker	Sweeping	Chowkidar/Peon	Masonry Labour	Defense	Road Constructor	Driving	Coolie	Helper Pvt. Company	Band Master	Fruit Vegetable Seller	Earth Worker	Nursery Growers	Man Power Construction	Supervisor Pvt. Company	Teaching			
Livestock Rearing	11	00	09.1	-	-	72.7	-	09.1	-	-	-	-	-	-	-	09.1	-	-	-	-	-	-	-
Agricultural Labour	03	-	00	-	-	33.3	-	33.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Piggery	02	-	-	00	-	-	-	-	-	-	-	-	-	-	-	50.0	-	-	-	-	-	-	-
Basket Maker	02	-	-	-	00	50.0	-	50.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sweeping	18	-	-	-	-	44.4	-	16.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chowkidar/Peon	05	-	20.0	-	-	40.0	00	-	-	20.0	-	-	-	-	-	-	-	-	-	-	-	-	-
Masonry Labour	03	-	-	-	-	33.3	-	33.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33.3
Defense	02	-	-	-	-	100	-	-	00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Road Constructor	01	-	-	-	-	-	-	-	100	00	-	-	-	-	-	-	-	-	-	-	-	-	-
Driving	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Coolie	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Helper Pvt. Company	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Band Master	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fruit Vegetable Seller	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Earth Worker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nursery Growers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Supervisor Pvt. Company	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Man Power Construction	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Clerk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Teaching	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Frequencies of Respondent (Son)	47	00	02	00	00	23	00	07	04	00	01	00	02	01	01	01	01	01	01	01	01	01	01

Source: Field Survey, 2022. Compiled by Authors.

Note: Green Colour indicates Upward Mobility; Red Colour Indicates Downward Mobility and Yellow Colour indicates No Mobility.

**Table 8**  
**District Jhajjar: Village Silami Pana Zalim**  
**Immobility and Mobility from Grandfather to Respondent (Son) among Balmiki Caste**

Occupations of Grandfather's	HHs	Frequency of Immobility	(%)	Frequency of Mobility	(%)	Shifted to Respondent's Occupations
Livestock Rearing	11	00	00.0	11	100	Agricultural Labour (1), Sweeping (8), Masonry Labour (1), and Earth Worker (1).
Agricultural Labour	03	00	00.0	03	00.0	Sweeping (1), Masonry Labour (1), and Defense (1).
Piggery	02	00	00.0	02	100	Fruit/ Vegetable Seller (1), Nursery Growers (1).
Basket Maker	02	00	00.0	02	00.0	Sweeping (1) and Masonry Labour (1).
Sweeping	18	08	44.4	10	55.6	Masonry Labour (3), Defense (2), Helper Pvt. Company (1), Band Master (1), Supervisor Pvt. Company (1), Man Power Construction (1) and Clerk (1).
Chowkidar/Peon	05	00	00.0	05	100	Agricultural Labour (1), Sweeping (2), Driving (1) and Helper Pvt. Company (1).
Masonry Labour	03	01	33.3	02	66.7	Sweeping (1) and Teaching (1).
Defense	02	00	00.0	02	100	Sweeping (2).
Road Constructor	01	00	00.0	01	100	Defense (1).
<b>Village Silami Pana Zalim (%)</b>	<b>47</b>	<b>09</b>	<b>19.1</b>	<b>38</b>	<b>80.9</b>	<b>Agricultural Labour (4.3), Sweeping (31.9), Masonry Labour (12.7), Defense (8.5), Driving (2.1), Helper Pvt. Company (4.3), Band Master (2.1), Fruit/ Vegetable Seller (2.1), Earth Worker (2.1), Nursery Growers (2.1), Supervisor Pvt. Company (2.1), Man Power Construction (2.1), Clerk (2.1) and Teaching (2.1).</b>

Source: Field Survey, 2022. Compiled by Authors. Note: HHs, Number of Households.

Table 8 shows the immobility and mobility of occupations between grandfather and respondent (son). More than four-fifth frequencies of respondent recorded in the category of mobility like sweeping, masonry labour, defense, agricultural labour, helper, driving, band master, fruit vegetable seller, earth worker, nursery growers, supervisor, manpower construction, clerk, and teaching from grandfather to respondent. Further, the highest frequencies of respondent moved downward from livestock rearing, agricultural labour, basket maker, chowkidar/peon, masonry labour, and defense by adopting the traditional occupation of sweeping from grandfather to respondent generation.

### Conclusions

It is concluded that grandfather, father, and respondent (son) were engaged in nine, eight and 14 occupations among Balmiki caste in the village of Silani Pana Zalim. It is noted that the households engaged in the primary activities have been decreased from 34 per cent to four per cent from grandfather to respondent. On the other hand, the occupations related to tertiary activities have been increased from 62 per cent to 96 per cent from grandfather to respondents. Further, it is recorded that the maximum 'mobility' from grandfathers to fathers' occupations in agricultural labour, basket makers, defense and road constructor. The immobility has been noted in 13 per cent frequencies of the respondent from father and grandfather traditional occupation of sweeping in the village.

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## **A Study of Taxpayers' Perception towards Income Tax Rules in India**

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### **Abstract**

In terms of the number of individuals and other corporate entities it applies to, the Indian tax system is among the largest taxation systems in the world. Income tax is the tax that is laid down by the government, on the income earned by the corporate and individuals, for financing its various operations. Perception of taxpayer is crucial for the success of tax system of the country because it is the taxpayer whom all laws belong to. An improved understanding of taxpayer behavior and attitude towards taxation can help the tax administration to develop stronger and effective tax system in the country. The present study is purely based on primary data collected through a questionnaire from 410 respondents from Delhi NCR aims at studying the perception of taxpayers towards tax rules and procedures in India. It is found through the results of the study that majority of respondents found the minimum exemption level at lower side and tax rates at higher side. Further, the respondents found the tax system very complex to understand. The study suggests that concrete and effective measures like, reduction in tax rates, increase in minimum exemption limit, etc. are required to be taken by the concerned authorities for the consolidation of the Income Tax Act in India for bringing about the overall growth and development of the nation.

**Keywords:** Income tax, Minimum exemption limit, Tax rates

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## **Introduction**

Along with the growth and development of the country and shifting of government priorities towards the social welfare of the nation, the need for revenue has also increased. This pressing need of finance have propelled the government of many nations to introduce various means of raising finances for economic growth and development and to execute its socio-economic obligations to the public. Income tax is the tax that is laid down by the government, on the income earned by the corporates and individuals, for financing its various operations. In India, the income tax is paid as per the rules and provisions of Income Tax Act, 1961 by the assessee on the income so earned. The Indian Finance Minister, Hon. Nirmala Sitaraman, unveiled a new tax regime in the 2020 budget. The primary distinction between this new tax regime and the previous one is the inclusion of more tax slabs with lower tax rates. The majority of taxpayers had long demanded that the tax rates on the current slabs be reduced, which is why the system was introduced. Tax reform is more difficult since it entails both base-widening and tax rate reductions. Although the effect and size of the impact are undetermined, there is a theoretical presumption that such adjustments should increase the growth of the economy overall over the long term. One point that sometimes goes overlooked is that expanding the tax base by lowering or eliminating tax expenditures increases the effective tax rate that people and businesses must pay and, as a result, will operate in the opposite direction from rate reductions. Tax is still considered a separate case in the life of the state. So then when the students grow up and become Taxpayers, there is an attitude of distrust and reluctance to fulfill the obligation of taxation. Perception of taxpayer is crucial for the success of tax system of the country because it is the taxpayer whom all laws belong to. An improved understanding of taxpayer behavior and attitude towards taxation can help the tax administration to develop stronger and effective tax system in the country. India is a country with diverse culture and beliefs, etc. So the situation demanded a multifaceted approach to understand the perception/behavior of individuals and the factors influencing their behavior in order to create more positive tax culture. The same would help in the development of respective strategies by government to communicate tax issues with its citizens. Therefore, the proposed study will try to examine the perception of tax payers associated with the income tax rules and procedure in India which would help the policy makers to develop a strong tax structure in the nation.

## **Objectives of the study**

To examine the perception of tax payers towards tax rules and procedure.

## **Research Methodology**

**Research Design:** The research design of the present study is exploratory in nature to

study the tax payers' perception towards a number of issues.

**Data Collection:** The study is based on primary data collected from a sample of 410(279 male and 131 female) from Delhi-NCR through questionnaire by applying purposive convenient sampling technique..

**Statistical Techniques:** various statistical techniques like mean, score, CAGR, etc were used to study the perception of taxpayers.

### **Review of Literature**

Razak, A.A. and Adafula, C.J. (2013) established through the study that there exist a high degree of positive correlation (.72) between level of understanding and tax compliance. It was also found that taxpayers were not having sufficient knowledge of tax system. Further, the study confirmed that level of governmental accountability and transparency has no significant influence over the behavior of taxpayers.

Bhide, S.V. (2013) concluded that majority of respondents were well aware of the basics of income tax while in case of tax planning, a few of them take professional help. Moreover, it is also believed by the respondents that consultants are only required for filing the returns.

Helhel, Y. & Ahmed, Y. (2014) stated that females were more compliant than that of males in Yemen. Many factors like, "individual characteristics of taxpayers, tax administration, tax system and economical and political situations" were found to be responsible for tax compliance. The study recommended that stringent actions were required to be taken like, improving tax rates, tax morale, expenditure and administrating the tax structure in order to increase the tax compliance in Yemen.

Gadi, M. (2015) determined through the study that in formal sector, tax compliance level was influenced by "level of income, compliance costs, penalty rate, attitudes towards taxes, equity and fairness of tax system." Moreover, in case of informal sector, tax compliance behavior was only affected by "respondents' attitude and perception towards government spending."

Adimasu, N.A. and Daare, W.J. (2017) stated that unfair government expenditure, ignorance, a dishonest tax system, an inability to pay, and a lack of tax understanding were identified as the main causes of decreased tax compliance. The study also demonstrated that people only pay their taxes out of a fear of penalties, which deters voluntary tax compliance. The majority of respondents claimed that high tax rates have little influence on their tax compliance behaviour and that a more straightforward tax system would encourage them to do so.

Pratama, A. (2018) conveyed that individual taxpayers possessed moderate knowledge of taxation in Bandung city. The results also revealed that tax knowledge is influenced by demographic variables studied except in the case of gender.

### Analysis and Interpretation

The collected data through questionnaire were transcribed into tables and analyzed with the help of various suitable statistical tools and inferences were drawn. The following are the results of the study:

**Table 1**  
**The rules of Indian tax system are complex**

Demographic Profile		Strongly Disagreed	Disagreed	Neutral	Agreed	Strongly Agreed	Total	Mean Scores
Gender	Male	24 (8.6)	12 (4.3)	56 (20.1)	108 (38.7)	79 (28.3)	279 (100)	3.7
	Female	18 (13.7)	15 (11.5)	25 (19.1)	36 (27.5)	37 (28.2)	131 (100)	3.5
	Total	42 (10.2)	27 (6.6)	81 (19.8)	144 (35.1)	116 (28.3)	410 (100)	3.6
Age	Up to 30	18 (9.9)	5 (2.7)	42 (23.1)	73 (40.1)	44 (24.2)	182 (100)	3.7
	31-45	18 (12.3)	11 (7.5)	21 (14.4)	47 (32.2)	49 (33.6)	146 (100)	3.7
	46-60	6 (7.3)	11 (13.4)	18 (22.0)	24 (29.3)	23 (28.0)	82 (100)	3.6
	Total	42 (10.2)	27 (6.6)	81 (19.8)	144 (35.1)	116 (28.3)	410 (100)	3.6
Educational Qualifications	Graduate	14 (10.1)	11 (8.0)	29 (21.0)	50 (36.2)	34 (24.6)	138 (100)	3.6
	Post Graduate	22 (11.4)	5 (2.6)	39 (20.2)	69 (35.8)	58 (30.1)	193 (100)	3.7
	Professional or Others	6 (7.6)	11 (13.9)	13 (16.5)	25 (31.6)	24 (30.4)	79 (100)	3.6
	Total	42 (10.2)	27 (6.6)	81 (19.8)	144 (35.1)	116 (28.3)	410 (100)	3.6
Annual Income (Rs.)	2,50,001 to 5,00,000	11 (13.6)	13 (16.0)	13 (16.0)	27 (33.3)	17 (21.0)	81 (100)	3.3
	5,00,001 to 10,00,000	13 (13.0)	8 (8.0)	27 (27.0)	28 (28.0)	24 (24.0)	100 (100)	3.4
	Above 10,00,000	18 (7.9)	6 (2.6)	41 (17.9)	89 (38.9)	75 (32.8)	229 (100)	3.9
	Total	42 (10.2)	27 (6.6)	81 (19.8)	144 (35.1)	116 (28.3)	410 (100)	3.6
Occupation	Private Employee	18 (11.8)	9 (5.9)	32 (20.9)	43 (28.1)	51 (33.3)	153 (100)	3.7
	Government Employee	12 (7.1)	6 (3.6)	39 (23.1)	70 (41.4)	42 (24.9)	169 (100)	3.7
	Self Employed or Others	12 (13.6)	12 (13.6)	10 (11.4)	31 (35.2)	23 (26.1)	88 (100)	3.5
	Total	42 (10.2)	27 (6.6)	81 (19.8)	144 (35.1)	116 (28.3)	410 (100)	3.6

**Source:** Compiled from primary data collected

**Note:** Figures in brackets show the Percentage

The investigative table provides the details relating to 410 respondents pertaining to the statement 'the rules of Indian tax system are complex'. Out of 279 male and 131 female respondents, 108 (38.7 per cent) and 36 (27.5 per cent) agreed and 79 (28.3 per cent) and 37 (28.2 per cent) strongly agreed to the statement, respectively. The mean-score analysis shows that male respondents endorsed the statement with comparatively high mean value of 3.7 as that of female respondents (3.5). The age-wise analysis depicts that out of 182,

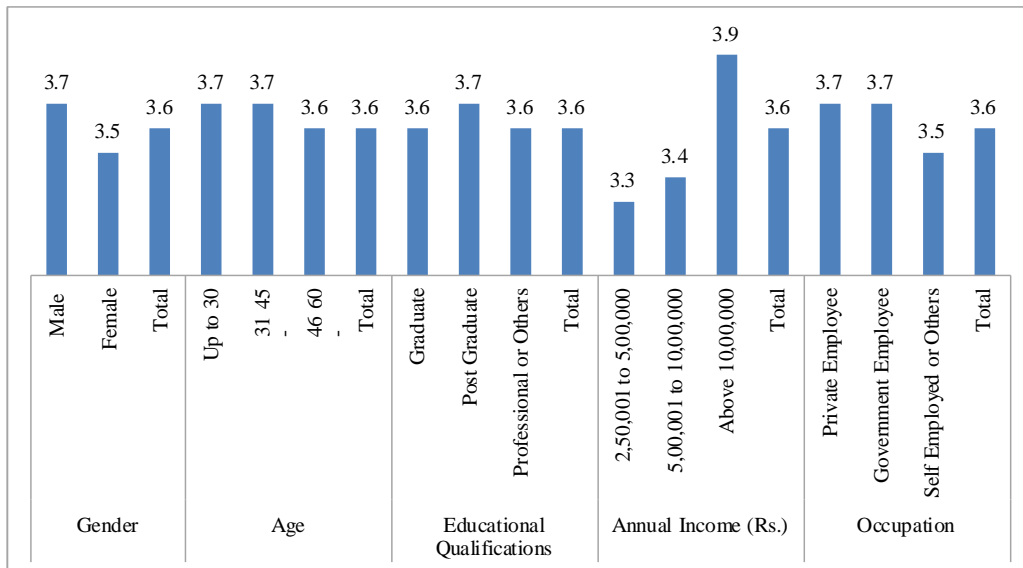
146 and 82 respondents from category 'up to 30', '31-45' and '46-60', 117 (64.3 per cent), 96 (65.8 per cent) and 47 (57.3 per cent) respondents supported the statement. Moreover, it is found that respondents from 'up to 30' and '31-45' age category endorsed the statement with similar mean values of 3.7 whereas; it is found to be 3.6 in '46-60' category. The analysis relating to demographic category 'educational qualifications' shows that majority of respondents from each category supported the statement i.e. 60.8 per cent from 'graduate', 65.9 per cent from 'post graduate' and 63.4 per cent from 'professional or others' category with mean values of 3.6, 3.7 and 3.6, respectively.

The table also depicts the analysis based on annual income in which the same is categorized into three categories i.e. '2,50,001 to 5,00,000', '5,00,001 to 10,00,000' and 'above 10,00,000'. Out of each category, 27 (33.3 per cent), 28 (28 per cent) and 89 (38.9 per cent) respondents agreed whereas; 17 (21 per cent), 24 (24 per cent) and 75 (32.8 per cent) respondents strongly agreed to the statement. As far as mean score analysis is concerned, respondents from 'above 10,00,000' category favored the statement with 3.9 mean value and other categories with very low mean values of 3.3 and 3.4, respectively. The occupation-wise analysis exposes that 51 (33.3 per cent) respondents from 'private employee' category, 42 (24.9 per cent) respondents from 'government employee category' and 23 (26.1 per cent) respondents from 'self employed or others' strongly approved the statement with almost similar mean values.

It is also found through the analysis that few respondents from each demographic category either disapproved or indifferent towards the statement. 12.9 per cent male and 25.2 per cent female respondents opposed the statement. 13 (12.6 per cent), 29 (19.8 per cent) and 17 (20.7 per cent) respondents from age category 'up to 30', '31-45' and '46-60' opposed the statement. Among all sub-categories of demographic variable 'educational qualifications', maximum 21.5 per cent respondents from 'professional and others' disagreed the statement followed by 18.1 per cent and 14 per cent respondents from graduate and post graduate category, respectively. Further, the results confirms that 17.7 per cent (27), 10.7 per cent (18) and 27.2 per cent (24) respondents disagreed to the statement from sub-categories 'private employee', 'government employee' and 'self employed or others', respectively.

### Exhibit 1.1

#### Mean Scores of the Respondents based on Table 1



Source: Compiled from primary data

**Table 2**  
**Complex nature of tax procedure makes it difficult to understand**

Demographic Profile		Strongly Disagreed	Disagreed	Neutral	Agreed	Strongly Agreed	Total	Mean Scores
Gender	Male	19 (6.8)	19 (6.8)	52 (18.6)	84 (30.1)	105 (37.6)	279 (100)	3.8
	Female	12 (9.2)	14 (10.7)	21 (16.0)	31 (23.7)	53 (40.5)	131 (100)	3.8
	Total	31 (7.6)	33 (8.0)	73 (17.8)	115 (28.0)	158 (38.5)	410 (100)	3.8
Age	Up to 30	12 (6.6)	13 (7.1)	30 (16.5)	57 (31.3)	70 (38.5)	182 (100)	3.9
	31-45	11 (7.5)	6 (4.1)	29 (19.9)	42 (28.8)	58 (39.7)	146 (100)	3.9
	46-60	8 (9.8)	14 (17.1)	14 (17.1)	16 (19.5)	30 (36.6)	82 (100)	3.6
	Total	31 (7.6)	33 (8.0)	73 (17.8)	115 (28.0)	158 (38.5)	410 (100)	3.8
Educational Qualifications	Graduate	16 (11.6)	12 (8.7)	27 (19.6)	25 (18.1)	58 (42.0)	138 (100)	3.7
	Post Graduate	9 (4.7)	12 (6.2)	35 (18.1)	67 (34.7)	70 (36.3)	193 (100)	3.9
	Professional or Others	6 (7.6)	9 (11.4)	11 (13.9)	23 (29.1)	30 (38.0)	79 (100)	3.8
	Total	31 (7.6)	33 (8.0)	73 (17.8)	115 (28.0)	158 (38.5)	410 (100)	3.8
Annual Income (Rs.)	2,50,001 to 5,00,000	7 (8.6)	13 (16.0)	16 (19.8)	14 (17.3)	31 (38.3)	81 (100)	3.6
	5,00,001 to 10,00,000	13 (13.0)	5 (5.0)	16 (16.0)	31 (31.0)	35 (35.0)	100 (100)	3.7
	Above 10,00,000	11 (4.8)	15 (6.6)	41 (17.9)	70 (30.6)	92 (40.2)	229 (100)	3.9
	Total	31 (7.6)	33 (8.0)	73 (17.8)	115 (28.0)	158 (38.5)	410 (100)	3.8
Occupation	Private Employee	11 (7.2)	13 (8.5)	34 (22.2)	39 (25.5)	56 (36.6)	153 (100)	3.8
	Government Employee	7 (4.1)	10 (5.9)	21 (12.4)	49 (29.0)	82 (48.5)	169 (100)	4.1
	Self Employed or Others	13 (14.8)	10 (11.4)	18 (20.5)	27 (30.7)	20 (22.7)	88 (100)	3.4
	Total	31 (7.6)	33 (8.0)	73 (17.8)	115 (28.0)	158 (38.5)	410 (100)	3.8

**Source:** Compiled from primary data collected

**Note:** Figures in brackets show the Percentage

The informative table gives the details pertaining to the perception of 410 respondents towards the statement 'Complex nature of tax procedure makes it difficult to understand' which is further analyzed on the basis of several demographic variable like, age, gender, educational qualifications, annual income and occupation. The gender-wise analysis states that out of 279 male and 131 female respondents, 84 (30.1 per cent) and 31 (23.7 per cent) agreed while; 105 (37.6 per cent) and 53 (40.5 per cent) respondents strongly agreed to the statement. The mean score analysis shows that both male and female respondents endorsed to the statement with same mean values of 3.8 each. The age-wise analysis confirms that 127 (69.8 per cent) respondents from 'up to 30' category, 100 (68.5 per cent) from '31-45' category and 53 (67.1 per cent) from '46-60' category concurred to the statement with the mean value of 3.7, 3.9 and 3.8, respectively. Further, the 410 respondents



are categorized into three parts i.e. 'graduate', 'post graduate' and 'professional or others' on the basis of their educational qualifications. 25 (18.1 per cent), 67 (34.7 per cent) and 23 (29.1 per cent) respondents from each category approved whereas; 58 (42 per cent), 70 (36.3 per cent) and 30 (38 per cent) respondents strongly approved the statement.

The table also exposes that out of 81, 100 and 229 respondents from '2,50,001 to 5,00,000', '5,00,001 to 10,00,000' and 'above 10,00,000', 14 (17.3 per cent), 31 (31 per cent) and 70 (30.6 per cent) respondents agreed while; 31 (38.3 per cent), 35 (35 per cent) and 92 (40.2 per cent) respondents strongly agreed to the statement. The respondents from annual income category 'above 10,00,000' concurred to the statement with highest mean value of 3.9 followed by '5,00,001 to 10,00,000' (3.7) and '2,50,001 to 5,00,000' (3.6). Out of total 410 respondents, 153, 169 and 88 belong to 'private employee', 'government employee' and 'self-employed or others' categories, out of which 56 (36.6 per cent), 82 (48.5 per cent) and 20 (22.7 per cent) respondents strongly agreed to the statement, respectively.

The table also states that 13.6 per cent male and 19.9 per cent female respondents opposed the statement. The annual income wise analysis states that 19.8, 16 and 17.9 per cent respondents from each sub-category were indifferent towards the statement. Moreover, each sub-category on the basis of occupation shows 15.7 per cent, 10 per cent and 26.2 per cent respondents opposed the statement

**Table 3**  
**The rates at which Income Tax is charged are high**

Demographic Profile		Strongly Disagreed	Disagreed	Neutral	Agreed	Strongly Agreed	Total	Mean Scores
Gender	Male	16 (5.7)	16 (5.7)	58 (20.8)	86 (30.8)	103 (36.9)	279 (100)	3.9
	Female	16 (12.2)	12 (9.2)	16 (12.2)	44 (33.6)	43 (32.8)	131 (100)	3.7
	Total	32 (7.8)	28 (6.8)	74 (18.0)	130 (31.7)	146 (35.6)	410 (100)	3.8
Age	Up to 30	10 (5.5)	13 (7.1)	25 (13.7)	65 (35.7)	69 (37.9)	182 (100)	3.9
	31-45	9 (6.2)	10 (6.8)	32 (21.9)	43 (29.5)	52 (35.6)	146 (100)	3.8
	46-60	13 (15.9)	5 (6.1)	17 (20.7)	22 (26.8)	25 (30.5)	82 (100)	3.5
	Total	32 (7.8)	28 (6.8)	74 (18.0)	130 (31.7)	146 (35.6)	410 (100)	3.8
Educational Qualifications	Graduate	12 (8.7)	10 (7.2)	29 (21.0)	36 (26.1)	51 (37.0)	138 (100)	3.8
	Post Graduate	9 (4.7)	14 (7.3)	29 (15.0)	71 (36.8)	70 (36.3)	193 (100)	3.9
	Professional or Others	11 (13.9)	4 (5.1)	16 (20.3)	23 (29.1)	25 (31.6)	79 (100)	3.6
	Total	32 (7.8)	28 (6.8)	74 (18.0)	130 (31.7)	146 (35.6)	410 (100)	3.8
Annual Income (Rs.)	2,50,001 to 5,00,000	13 (16.0)	4 (4.9)	11 (13.6)	29 (35.8)	24 (29.6)	81 (100)	3.6
	5,00,001 to 10,00,000	9 (9.0)	12 (12.0)	22 (22.0)	28 (28.0)	29 (29.0)	100 (100)	3.6
	Above 10,00,000	10 (4.4)	12 (5.2)	41 (17.9)	73 (31.9)	93 (40.6)	229 (100)	4.0
	Total	32 (7.8)	28 (6.8)	74 (18.0)	130 (31.7)	146 (35.6)	410 (100)	3.8
Occupation	Private Employee	15 (9.8)	15 (9.8)	24 (15.7)	48 (31.4)	51 (33.3)	153 (100)	3.7
	Government Employee	8 (4.7)	7 (4.1)	34 (20.1)	53 (31.4)	67 (39.6)	169 (100)	4.0
	Self Employed or Others	9 (10.2)	6 (6.8)	16 (18.2)	29 (33.0)	28 (31.8)	88 (100)	3.7
	Total	32 (7.8)	28 (6.8)	74 (18.0)	130 (31.7)	146 (35.6)	410 (100)	3.8

**Source:** Compiled from primary data collected

**Note:** Figures in brackets show the Percentage

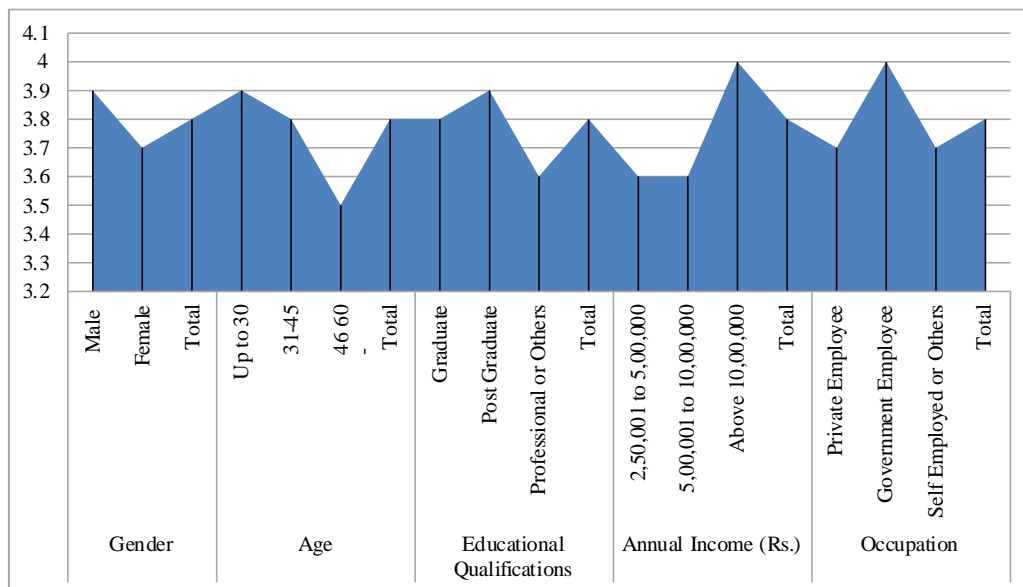
The analytical table portrays the responses of 410 tax payers towards the statement 'The rates at which Income Tax is charged are high' on the basis of demographic profile of the respondents. The gender-wise analysis shows that 103 (36.9 per cent) male and 43 (32.8 per cent) female respondents strongly endorsed to the statement with mean values of 3.9 and 3.7, respectively. On the basis of age, respondents are categorized into three categories namely; 'up to 30', '31-45' and '46-60'. 65 (35.7 per cent), 43 (29.5 per cent) and 22 (26.8 per cent) respondents from each category agreed whereas; 69 (37.9 per cent), 52 (35.6 per cent) and 25 (30.5 per cent) respondents from each respective category strongly agreed to the statement. The educational qualification-wise analysis exposes that 87 (63 per cent), 141 (73.1 per cent) and 48 (60.7 per cent) respondents from sub-categories 'graduate', 'post graduate' and 'professional or others' approved the statement. As far as mean score analysis is concerned, among all the categories respondents from 'post graduate'

endorsed to the statement with highest mean value of 3.9.

The annual income-wise analysis states that out of 81, 100 and 229 respondents from '2,50,001 to 5,00,000', '5,00,001 to 10,00,000' and 'above 10,00,000', 53 (65.4 per cent), 57 (57 per cent) and 166 (72.5 per cent) respondents favored the statement. It is further found that respondents from 'above 10,00,000' category favored the statement with highest mean value of 4.0, followed by '2,50,001 to 5,00,000' and '5,00,001 to 10,00,000' with same mean values of 3.6 each. The analysis on the basis of occupation exhibits that out of 153, 169 and 88 respondents, 51 (33.3 per cent), 67 (39.6 per cent) and 28 (31.8 per cent) respondents from sub-category 'private employee', 'government employee' and 'self-employed or others' strongly approved the statement, with mean value of 3.7, 4.0 and 3.7, respectively.

**Exhibit 3.1**

**Mean Scores of the Respondents based on Table 3**



Source: Compiled from primary data

**Table 4**  
**The minimum exemption limit is fixed at a lower level**

Demographic Profile		Strongly Disagreed	Disagreed	Neutral	Agreed	Strongly Agreed	Total	Mean Scores
Gender	Male	10 (3.6)	25 (9.0)	36 (12.9)	74 (26.5)	134 (48.0)	279 (100)	4.1
	Female	18 (13.7)	15 (11.5)	24 (18.3)	26 (19.8)	48 (36.6)	131 (100)	3.5
	Total	28 (6.8)	40 (9.8)	60 (14.6)	100 (24.4)	182 (44.4)	410 (100)	3.9
Age	Up to 30	9 (4.9)	17 (9.3)	21 (11.5)	57 (31.3)	78 (42.9)	182 (100)	4.0
	31 -45	7 (4.8)	17 (11.6)	29 (19.9)	31 (21.2)	62 (42.5)	146 (100)	3.8
	46-60	12 (14.6)	6 (7.3)	10 (12.2)	12 (14.6)	42 (51.2)	82 (100)	3.8
	Total	28 (6.8)	40 (9.8)	60 (14.6)	100 (24.4)	182 (44.4)	410 (100)	3.9
Educational Qualifications	Graduate	7 (5.1)	15 (10.9)	22 (15.9)	39 (28.3)	55 (39.9)	138 (100)	3.9
	Post Graduate	11 (5.7)	17 (8.8)	32 (16.6)	43 (22.3)	90 (46.6)	193 (100)	4.0
	Professional or Others	10 (12.7)	8 (10.1)	6 (7.6)	18 (22.8)	37 (46.8)	79 (100)	3.8
	Total	28 (6.8)	40 (9.8)	60 (14.6)	100 (24.4)	182 (44.4)	410 (100)	3.9
Annual Income (Rs.)	2,50,001 to 5,00,000	11 (13.6)	8 (9.9)	8 (9.9)	12 (14.8)	42 (51.9)	81 (100)	3.8
	5,00,001 to 10,00,000	8 (8.0)	8 (8.0)	16 (16.0)	31 (31.0)	37 (37.0)	100 (100)	3.8
	Above 10,00,000	9 (3.9)	24 (10.5)	36 (15.7)	57 (24.9)	103 (45.0)	229 (100)	4.0
	Total	28 (6.8)	40 (9.8)	60 (14.6)	100 (24.4)	182 (44.4)	410 (100)	3.9
Occupation	Private Employee	8 (5.2)	18 (11.8)	26 (17.0)	39 (25.5)	62 (40.5)	153 (100)	3.8
	Government Employee	6 (3.6)	17 (10.1)	24 (14.2)	43 (25.4)	79 (46.7)	169 (100)	4.0
	Self Employed or Others	14 (15.9)	5 (5.7)	10 (11.4)	18 (20.5)	41 (46.6)	88 (100)	3.8
	Total	28 (6.8)	40 (9.8)	60 (14.6)	100 (24.4)	182 (44.4)	410 (100)	3.9

**Source:** Compiled from primary data collected

**Note:** Figures in brackets show the Percentage

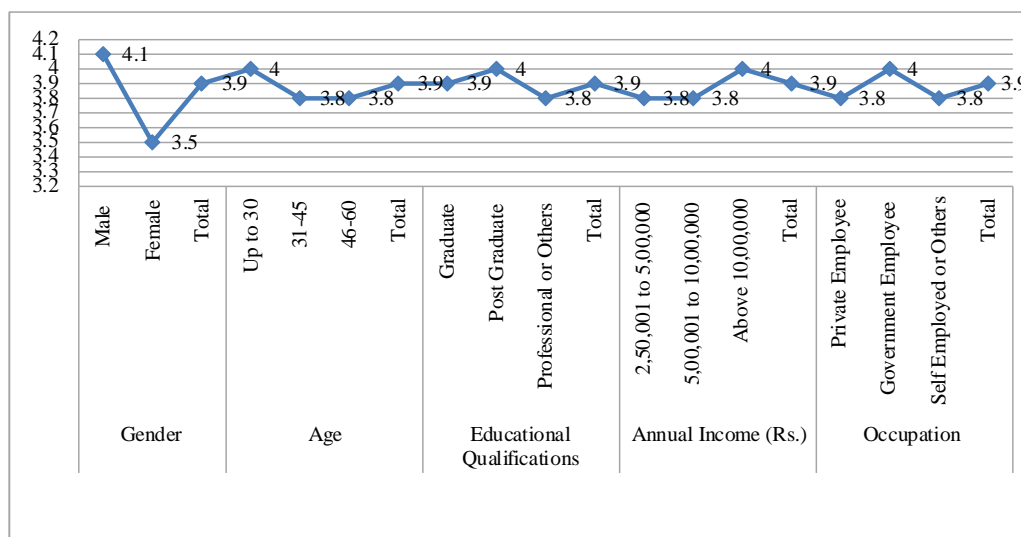
The analytical table portrays the responses of 410 selected tax payers pertaining to the statement 'the minimum exemption limit is fixed at a lower level' on the basis of their demographic variables i.e. gender, age, educational qualifications, annual income and occupation. In case of gender, out of total male respondents (279), 74 (26.5 per cent) and 134 (48 per cent) respondents agreed and strongly agreed to the statement, respectively. As far as female respondents (131) are concerned, 26 (19.8 per cent) respondents agreed and 48 respondents (36.6 per cent) strongly agreed to the statement asked. The analysis through mean score depicts that the male category was supporting the statement with the high mean value of 4.1. The age-wise responses shows that out of 182 respondents from 'Up to 30', 146 respondents from '31-45' and 82 respondents from '46-60' age sub-categories, 57 (31.9 per cent), 31 (21.2 per cent) and 12 (14.6 per cent) respondents agreed; whereas, 78 (42.9 per cent), 62 (42.5 per cent) and 42 (51.2 per cent) respondents strongly agreed

to the statement that the minimum exemption limit is fixed at a lower level.

The category educational qualification depicts that out of total 410 responses received, 138 belongs to 'Graduate', 193 to 'post-graduate' and 79 to the sub category 'professional and others'. The table shows that from sub-category 'graduate', 'post-graduate' and 'professional and others', nearly 68.1 per cent, 68.9 per cent and 69.6 per cent respondents favored the statement, respectively. Further, the table exhibits the results on the basis of occupation of the respondents, 62 (40.5 per cent), 79 (46.7 per cent) and 41 (46.6 per cent) respondents from 'private employee', 'government employee' and 'self-employed or others' category strongly agreed to the statement. The respondents from category 'government employee' agreed to the statement with highest mean value of 4.0 followed by both categories with mean values of 3.8 each.

**Exhibit 4.1**

**Mean Scores of the Respondents based on Table 4**



Source: Compiled from primary data

### Findings of the Study

- It is noticed that only few tax payers found tax system simple. It is needed to be made simpler and more complexities should be avoided to make it easier for the taxpayer to understand.
- Moreover, the competent authorities should try to reduce the tax rates.
- The minimum exemption limit should be enhanced which will help to curb tax evasion in the economy and will in turn help in more revenue generation for the government.

## Conclusion

Income tax is the tax that is laid down by the government, on the income earned by the corporates and individuals, for financing its various operations. Perception of taxpayer is crucial for the success of tax system of the country because it is the taxpayer whom all laws belong to. It is found through the results of the study that majority of respondents feel the minimum exemption level at lower side and tax rates at higher side. Further, the respondents found the tax system very complex to understand. The study suggests that concrete and effective measures like, reduction in tax rates, increase in minimum exemption limit, etc. are required to be taken by the concerned authorities for the consolidation of the Income Tax Act in India for bringing about the overall growth and development of the nation. The tax rates are required to be revised to lower side and the exemption limit to the upper side for better tax compliance and to boost the fiscal system for the economic growth and development of the Indian economy as opined by majority of the respondents.

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## **Origin and Growth of Agartala City, Tripura**

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### **Abstract**

The commencement of the intensive expansion of cities, especially huge urban agglomerations, was greatly influenced by the industrial revolution of the 19th century. Over the past three decades, India's urbanisation has increased significantly. Metropolitan areas are growing and becoming significant economic centres in India. It would be easier for planners to develop efficient and sustainable city plans if they are aware of the elements that influence city growth in India, how and why they vary through time, and which factors are now important. Urbanization develops fast and permanently, therefore the century's explosive population expansion has had significant ecological and environmental repercussions. This study focuses on the history and development of Agartala, one of the biggest cities in northeast India and the capital of the Indian state of Tripura. Prediction of population growth based on the ratio method, arithmetic growth method and exponential growth method between 1901 and 2011 has provided insights into the urban dynamics whereby the population of the city is expected to double by 2101.

**Keywords:** Origin, Growth, Evolution, Population Projection

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## **Introduction**

Agartala is the capital of Tripura, situated in the far western region of the state, close to Bangladesh's international border. After Guwahati, it is the second biggest city in India's north-eastern region. The city has continually changed its area jurisdiction since 1970. It was a Municipal Council in 2011 with an area of 58.84 square km containing four lakh population. In 2013 it was upgraded to a Municipal Corporation comprising a 76.504 km<sup>2</sup> area and 49 wards. Because of the presence of the state's economic, educational, and recreational areas, the city is the epicentre of a thriving socio-cultural life.

## **Etymology**

Agartala is a derivative of two words: '*agar*', incense tree of genus *Aquilaria*, and '*tala*', meaning underneath, which provide the region with a lush, vegetative cover. The agar tree is historically referred to in the story of King Raghu, who tied up his elephant's feet to an agar tree on the banks of River Lauhitya. Another source attributes the name Agartala to the ancient ruler of "*Agar Fa*". Old Agartala was referred to as '*Old Haveli*' and New Agartala as '*New Haveli*' (Tripura District Gatteers, 1975).

## **Study Area**

### **Geographical Setting**

#### **Location, Site and Situation**

Agartala city is located on the western flank of the Tripura state in the Haora River flood plain. On its west is the country of Bangladesh, with its capital Dhaka only 150 kilometres from Agartala city. Historically, the city has played a significant role in cross-border trade with Bangladesh, and its earlier dispensation, serving as a commerce hub. Agartala connects to different cities in the northeast through roads or airways, such as to Assam state via the National Highway (NH)-08. In addition, it is air-connected to Kolkata and the Gateway to North-Eastern India, Guwahati City, as also the rest of the country. Most recently, it was connected via rail line when the state of Tripura was added to the country's wide-gauge railway map in July 2016. The railway line between Agartala and Sabroom is being extended. Agartala was connected to Kumarghat (the state's northernmost town, 110 kilometres distant) via a metre gauge railway line in 2008, which was upgraded to a broad gauge in 2016 (Agartala Municipal Corporation, 2018). The coordinates of Agartala are as under:

#### **Geographic coordinates:**

Latitude: 23°50'09" N

Longitude: 91°16'45" E

Elevation above sea level: 15 m = 49 ft

**Coordinates in decimal degrees:**

Latitude: 23.8360500°

Longitude: 91.2793900°

**Coordinates in degrees and decimal minutes:**

Latitude: 23°50.163' N

Longitude: 91°16.7634' E

**UTM coordinates:**

UTM Zone: 46Q

Easting: 324756.05276486

Northing: 2637138.7711662

**Physical Characteristics**

Agartala city is situated in the Haora river's flood plain, flanked on the east by the Baramura range and on the west by the Bangladesh plain. Hence, a flat landscape covers most of the city (Central Agartala). On the other hand, the North and South Zones have an undulating topography with average altitudes ranging from 8 metres to 25 to 30 metres giving it a saucer shape. The low-lying regions are subject to floods during monsoons. As a result, undulating grasslands with low-lying flat-topped mounds and small to vast valleys can be seen in the city.

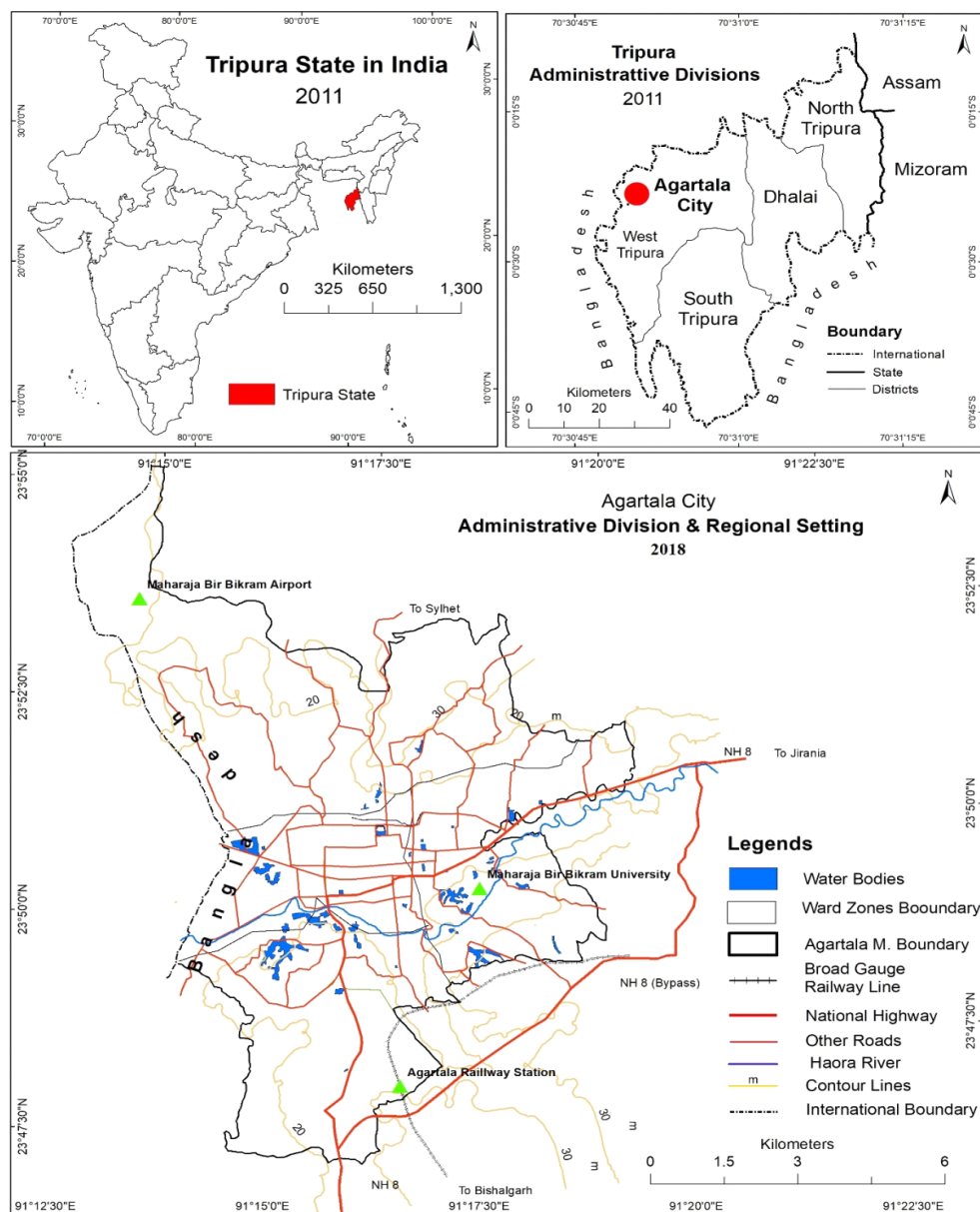
Summer, winter, and monsoon are the three main seasons in the region. The summer season begins in March, when the average maximum and lowest temperatures are 32°C to 33°C and 25°C, respectively, whereas the highest and minimum temperatures in the winter are 27°C and 11°C, respectively. April to June is the period of scorching heat. Microclimatic elements such as local topography, forest cover, high-rise building structures, mechanised roadways, and settlements have contributed to modest climate changes in Agartala during the last century. The average annual rainfall is 2178.60 mm. The months of May through August are often when the rain falls.

Beginning in mid-May, a sudden heavy downpour called locally Kalbaisakhi (convection rainfall) is a regular meteorological event. Monsoonal activity, caused mainly by the southwest monsoon winds, accounts for two-thirds of total rainfall from June to September. Only one-fifth of total rain falls during the pre-monsoon months, primarily due to thunderstorms. The winter is almost arid.

Agartala's drainage system is controlled by two large rivers, Haora and Kata Khal, which drain the city's centre. These two rivers enter Bangladesh from the west. The Haora

River is the seventh biggest in Tripura in the catchment area, providing Agartala's only surface water supply. Bangeswargang, Debta gang, Nagichara, Kalapania Chara, and their tributaries are scattered over the Agartala area. Two large streams provide natural drainage for the city, connected by minor Nallas and rivulets. The majority of the drainage flow flows westward. The Central region is served by the Akhaura canal system, which runs along the Akahura Road.

**Map 1: Location and Regional Aspects of Agartala City**



**Source:** Census of India, 2011 & Agartala Municipal Corporation, 2018.

## Objective

The main objective of the present research work is to explore the origin and growth of Agartala City.

## Database & Research Methodology

The present work is a systematic study in line with the study's aims, and the focus has been on examining the origin, growth, evolution, and development of Agartala city. Data on the said aspects of the city has been gathered from Indian imperial gazetteers, extant literature, and other historical materials. In addition, the Census of India provided data on several population demographics of several capital cities. The A-2 table collected data on population decadal variation since 1901. In contrast, in 2011, the A-4 table was used to collect data on towns classed by population size class, with variations from 1901. Other essential data were gathered from town and country planning, the city's master plan, historical material, etc. Google Earth imagery has been brought in tiles, and each tile is geo-referenced and mosaic in ERDAS IMAGINE software using UTM projection and digitized in ArcGIS. Guide map of the city at 1:25,000 scales collected from Survey of India for assistance. Municipal corporation boundary has been used to define city administrative boundary. Various population estimates and forecasting techniques were used in the study, including the ratio method, arithmetic growth method, and exponential growth method.

### a. Ratio Method

- i. Calculated the percentage share of the population of Agartala City in the population of Tripura in 2001 and 2011 (Table 1),
- ii. For projecting the population of Agartala City for the year 2021, computed the difference between the population share of Agartala to the population of Tripura in 2001 and 2011, as follows.

Share of Agartala city's population in the population of Tripura in 2001

$$(S_{2001}) = 8.43$$

Share of Agartala city's population in the population of Tripura in 2011

$$(S_{2011}) = 11.03$$

$$\text{Difference (D)} = S_{2001} - S_{2011}$$

$$= 8.43 - 11.03 = -2.60$$

This tendency, in degree and direction, was forward to project the population in 2021. The steps followed were as follows:

$$\begin{aligned}
 S_{2021} &= (S_{2011} - D) \\
 &= [11.03 - (-2.60)] \\
 &= [11.03 + 2.60] = 13.63
 \end{aligned}$$

In other words, the City of Agartala would have 13.63 per cent of the population of Tripura in 2021.

iii. The combined population of Tripura in 2021 was noted as 4,072,000.

Hence projected population of Agartala city in 2021 can be worked out as  $(4,072,000 \times 13.63) / 100 = 554,953$

Technically, this could be expressed as follows:

$$\begin{aligned}
 \text{Agartala 2021} &= (T_{2021} \times S_{2021}) / 100 \\
 &= (4,072,000 \times 13.63) / 100 \\
 &= 554,853
 \end{aligned}$$

iv. The combined population of Tripura in 2031 was noted as 4,465,000.

Hence projected population of Agartala city in 2031 can be worked out as  $(4,465,000 \times 16.23) / 100 = 724,670$  and so on

$$\begin{aligned}
 \text{Agartala 2031} &= (T_{2031} \times S_{2021}) / 100 \\
 &= (4,465,000 \times 16.23) / 100 \\
 &= 724,670.
 \end{aligned}$$

**Table 1: The percentage share of Agartala's population in Tripura's population: 2001-2101**

Years	Tripura	Agartala	Percentage Share of Agartala's Population in Tripura
2001	3,197,000	269,492	8.43
2011	3,627,000	400,004	11.03
2021	4,072,000	554,953	13.63
2031	4,465,000	724,670	16.23
2041	4,808,000	905,346	18.83
2051	5,088,000	1,090,358	21.43
2061	5,294,000	1,272,148	24.03
2071	5,434,000	1,447,074	26.63
2081	5,550,000	1,622,265	29.23
2091	5,661,000	1,801,896	31.83
<b>2101</b>	<b>5,753,000</b>	<b>1,980,758</b>	<b>34.43</b>

Source: Census of India (2011). General Population Tables: A-Series, Office of the Registrar, General and Census Commissioner, India, New Delhi.  
The Future Population of India, A Long-Range Demographic View,  
Population Foundation of India and Population Reference Bureau, Delhi, August 2007.

### **b. Arithmetic Growth Method**

This strategy is suitable for large, historic cities with tremendous expansion. In this approach, the average increase in population per decade is approximated using data from prior census reports. By adding this increase to the existing population, the population of the next decade may be determined. As a result, the population is thought to be steadily increasing.

As a result,  $dP/dt = C$  indicates constant population change rate. As a result, after the  $n$ th decade, the population will be  $P_n = P + n \cdot C$ .  $P_n$  represents the population after  $n$  decades, while  $P$  represents the current population.

### **c. Exponential Growth Method**

Exponential growth is the process through which quantity rises over time. It happens when the instantaneous rate of change of an amount concerning time is proportionate to the amount itself. A portion undergoing exponential growth is an exponential function of time, which means that the variable denoting time is the exponent (in contrast to other types of growth, such as quadratic growth). If the proportionality constant is negative, the quantity declines with time and undergoes exponential decay. Because the function values form a geometric progression in the case of a discrete domain of definition with equal intervals, it is also known as geometric growth or geometric decay. The formula for the exponential growth of a variable  $x$  at the rate of growth  $r$ , while time  $t$  progresses at discrete intervals (that is, at integer times 0, 1, 2, 3), is whereas  $x_0$  is the value of  $x$  at time 0.

$$\text{Exponential Growth } (X_t) = X_0(1+r)^t$$

### **Population Growth and Future Projections**

Agartala city covered a total area of 58.84 square kilometres, with more than four lakhs of 400,004 as per Census, 2011. The city had a population of only 6,415 in 1901.

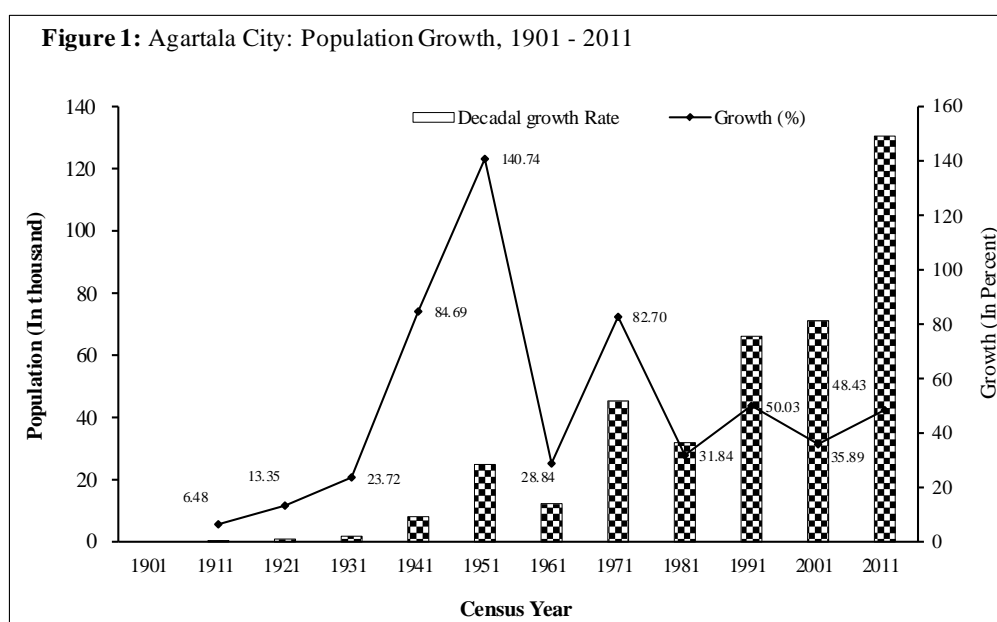
Agartala didn't record any population increase for the first half of the 20th century. It started witnessing an increase in population in 1951. Agartala acquired a Municipal status in 1961 with an area of 7.20 square kilometres. Its population exceeded one lakh in 1971. Within the next 40 years, the people of Agartala increased four times (Table 1). For the first half of 20<sup>th</sup> century, Agartala didn't record any population increase. The population of the city remained below 20,000 until 1941. It was in 1941 when the city recorded a decadal population growth rate of 85 per cent. In the following year 1951, the population of the city grew to 42,595 after noting a decadal population growth rate of 141 per cent. IN 1961, the population further went over 50,000 and the city was accorded a Municipal. The city covered only 7.20 square kilometers of area in 1961. It was in 1971 when the city recorded a population of over 1 lakh. Within the next 40 years, the population of Agartala increased four times. Simultaneously, the city area expanded to cover 58.84 square kilometers in

2011. The decadal population growth rate of Agartala has noted consecutive increase and decrease in the span of 110 years with the highest increase in 1951. However, the absolute increase in population was the highest in 2011 when the city added 1.3 lakh population. Based on the three population projection methods, the city population is further expected to grow.

**Table 1: Agartala City Decennial Growth, 1901-2011**

Census year	Urban Status	Area (Km <sup>2</sup> )	Persons	Decadal Change		Males	Females
				Absolute	%		
1901			6,415	---	---	4,023	2,392
1911			6,831	416	6.48	4,176	2,655
1921			7,743	912	13.35	4,333	3,410
1931			9,580	1,837	23.72	5,547	4,033
1941			17,693	8,113	84.69	10,085	7,608
1951			42,595	24,902	140.74	23,204	19,391
1961	M	7.20	54,878	12,283	28.84	29,281	25,597
1971	M	7.20	100,264	45,386	82.70	51,693	48,571
1981	M	15.80	132,186	31,922	31.84	67,120	65,066
1991	M	26.81	198,320	66,134	50.03	100,379	97,941
2001	M. CI	34.38	269,492	71,172	35.89	135,189	134,303
<b>2011</b>	<b>M. CI</b>	<b>58.84</b>	<b>400,004</b>	<b>130,512</b>	<b>48.43</b>	<b>200,132</b>	<b>199,872</b>

Source: Census of India, 2011. [https://censusindia.gov.in/2011census/population\\_enumerati\\_on.html](https://censusindia.gov.in/2011census/population_enumerati_on.html).



Source: Census of India, 2011. [https://censusindia.gov.in/2011census/population\\_enumeration.html](https://censusindia.gov.in/2011census/population_enumeration.html).

Based on the arithmetic mean projection approach, the city would add another 2.8 lakh population between 2021 and 2101. As per this approach, the city is projected to grow at a

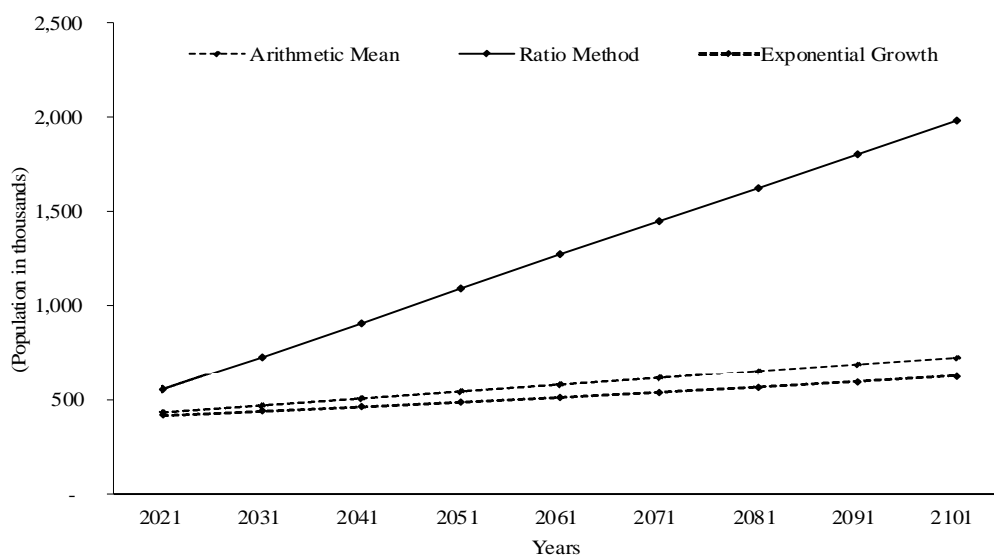
comparatively slower pace adding around 35 thousand people each decade. On the other hand, the ratio method predicts the population to expand by four times. In ratio method projections, the city is expected to witness a million-plus population in 2051, nearly doubling by 2101. With similar growth trends to the mean arithmetic approach, the exponential projections reveal the population of Agartala to cross 5 lakhs in 2061. Furthermore, according to the exponential method, the city would add roughly 20 thousand populations each decade. The growth trends based on arithmetic mean and exponential methods are much less steep than the ratio method. The city is bound to experience challenges if the population expands as per the trends. The city has increased in size to cope with the increasing population. Still, the increase as predicted by the approach means a drastic overhaul of the present infrastructure to accommodate the expected increase in population.

**Table 2: Agartala City: Population Projection using Different Methods**

Census Years	Arithmetic Mean	Ratio Method	Exponential Growth Method
2021	435,785	554,953	420,335
2031	471,566	724,670	441,699
2041	507,346	905,346	464,149
2051	543,127	1,090,358	487,740
2061	578,908	1,272,148	512,530
2071	614,689	1,447,074	538,580
2081	650,470	1,622,265	565,954
2091	686,251	1,801,896	594,719
<b>2101</b>	<b>722,031</b>	<b>1,980,758</b>	<b>624,947</b>

Source: Calculated by Author.

**Figure 2: Agartala City: Future trends of population growth, 2021-2101**



Source: Calculated by Author.



### Origin and Evolution

Ramganga Manikya excavated and gave his name to the sizable tank at Notunhaveli (New Residence), also known as New Agartala, which is located to the southwest of the palace. The local officials of the firm did the Tripura Raj a major injury during this time period by cutting off a sizable chunk of the state's northern region south of the Kusiara River, which had served as the state's northern and southern boundaries for generations. Kasichandra Manikya started constructing a mansion on the eastern bank of the big tank "Amer Sagar" in Udaipur but then transferred his home to Agartala. The name's etymology is the current capital of the Tripura Raj.

In contrast to the original Agartala, or Puranhaveli (old Residence), as it is known locally, Notunhaveli, or what is today recognised as Agartala and the residence of the late and current Raja, is situated lower down the Haura River.

Maharaj Krishna Manikya, who reigned from 1761 to 1783, founded ancient Agartala in 1761 on the Haora River and named it *Old Haveli*. However, within a few years of his leadership, Krishna Manikya was at odds with his traditional rival, the Nawab of Bengal, and the British, attempting to gain political and commercial influence (Menon, 1975, p.132).

At the time, Chakla Roshnabad was a source of controversy. After the conquest of Chakla Roshanbad in 1761, the East India Company established an agreement with the Maharaja in exchange for an annual fee of Rs. 1,00,001. Raja of Tripura was designated as a zamindar of Chakla Roshnabad by the East India Company, and a British Resident was sent to his zamindari. It was made Khas land of the company following Krishna Manikya's death in 1783. It was finally returned to his successor Rajdhor Manikya after ten years in 1792 under Lord Cornwallis' Permanent Settlement (Choudhury, 1977).

The Government has been kindly pleased to recognise the River Dhalleshwari as the Eastern boundary of our State and adopt directives accordingly, is the expected response. A detailed history of the problem was provided by the Tripura Administration in Letter No. 646 on 15 March 1887 to the Political Agent in Agartala (AMC, 2018).

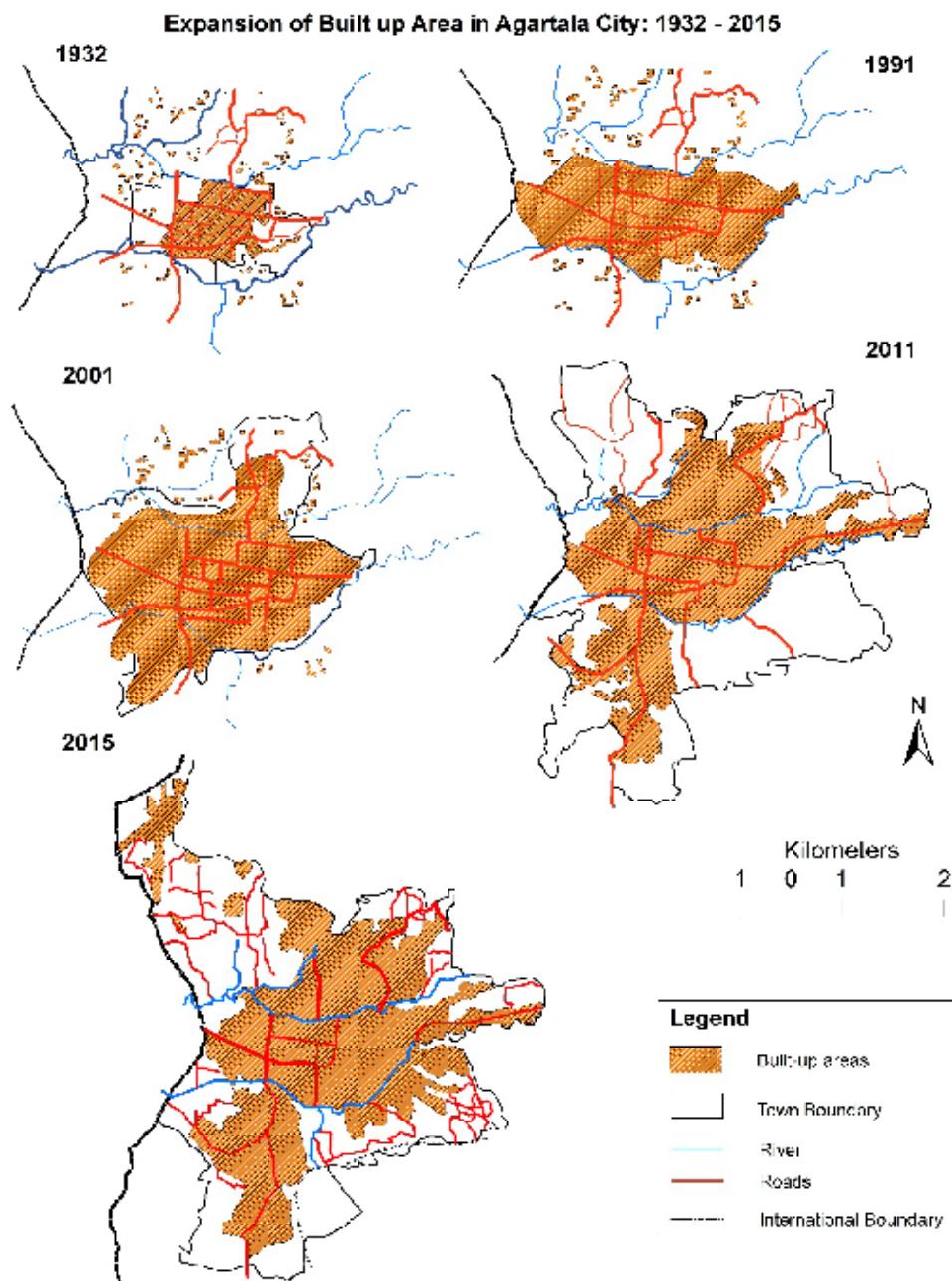
The *New Haveli* (now Agartala) was established on the other side of the river Howrah in 1838. In 1849, Maharaja Krishna Kishor Manikya moved the capital to *New Haveli* to avoid Kuki invasions and maintain easy contact with British Bengal. Near the current Ujjayanta Palace, a military Barrak was built with sun grass and bamboo. The territory used to be defined as far north as Kunjaban tilla, south to Jagaharimura and Rasman tilla, west to British India, and east to the river Howrah. The present-day Agartala region was formerly a swampy environment rich in vegetation and animals (Sengupta, 1998).

Maharaja Birchandra Manikya (1862/70-96) created the *Agartala Municipality* in 1871,

with an area of 7.77 km<sup>2</sup> and just 875 persons. On behalf of Maharaja Bir Chandra Manikya, Prince Radha Kishore directed the municipal works (Agartala City Development Plan, 2006). An art college, an artisan school, a Sanskrit Tol, a dispensary, and a jail are all located in the town (Imperial Gazetteer of India, 1908). The primary responsibility of the municipal authority was to oversee the development of roads/paths, drainage, bridge building, markets, and sanitation. The Akhaura Khal was dug for drainage (Agartala Municipal Corporation, 2018).

Maharaja Radha Kishore Manikya reorganised the whole government in 1897. Priority was given to economic and cultural growth, such as education and the medical department. He founded a new high school, Sanskrit Tol, and encouraged the establishment of several girls' and elementary schools around the state. The tremendous earthquake of June 12, 1897, severely devastated the ancient residential palace of modern Agartala, and a new castle, Ujjayanta Raj, was built in its stead. Messer Martin & Co., a well-known engineering business, was tasked with the construction. In 1900, Maharaja established a free boarding school for Thakur boys and the Royal family Kumars. Students both inside and outside the nation were awarded scholarships and stipends. In Agartala, a technical school was founded, which aided the cottage industry's rise (Deb et al. 1997).

Radha Kishore Manikya's son was a wise and kind monarch. He established English High Schools in various locations to disseminate knowledge among his subjects (Tripura State Gazette, 1330). Due to the overflowing of the Haora River in 1915, a catastrophic flood wrecked the whole city of Agartala. Maharaja Birendra Kishore Manikya embarked on a project to change the course of the west-flowing River Haora to eliminate the river's regular floods. In 1917, Maharaja built a '*Bundh*' (embankment) to redirect the Haora River's course from the western to the eastern side of *Rasmoni Tilla* (now College Tilla). The steel bridge known as the '*Karmical Bridge*' was built on the river Howrah between 1913 and 1918. In 1919-20, the State Physician chaired a Municipality Committee composed of nine nominated members.

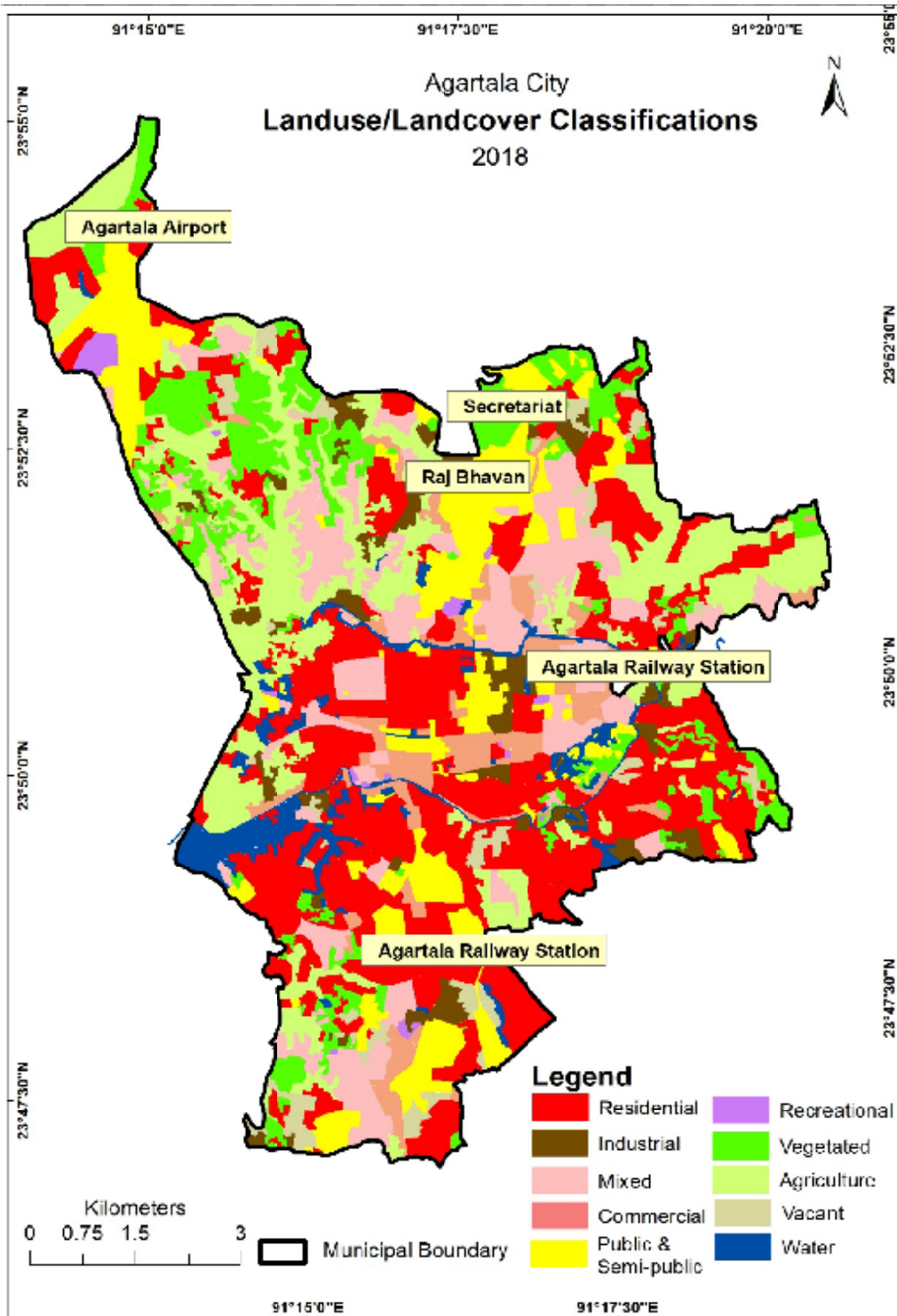
**Map 2:** Traces the broad contours of expanding the boundary of Agartala city from 1932 to 2015

Source: Adopted from Santra, 2017.

As per India Survey 1932, the principal residential areas were centred in Melarmath, Krishnanagar, West Ramnagar, Shibnagar, and Banamalipur. The topographical sheet covered the outer perimeter with dispersed families affluent with flora and animals. Agartala's main roads were Agartala to Ranirbazar, Agartala to Old Agartala, Agartala to Hatilatha (now Suryamaninagar), and Agartala to Akhawra. During World War II, a new route was built, connecting Agartala and Chattagram via Kumilla (Pal, 2002).

The reorganised planned town with new roads and a market was the effort of Maharaj Bir Bikram Kishore Manikya Bahadur during the early 1940s. He gave substantial impetus to forming Agartala Municipality, bypassing the Municipal Act of Tripura State in 1939. He created the planned residential neighbourhood of Ramnagar, which was a swampy plain (Jagdish, 1980).

Maharani Kanchan Prava Devi governed the state for two years and a few months when Maharaja Bir Bikram Kishore Manikya died on May 17, 1947, on behalf of her young son Maharaja Kirit Bikram Manikya. The State of Tripura was admitted to the Indian Union on October 15, 1949, and became a centrally administered entity as a Part C State. On January 21, 1972, Tripura was granted Indian Union Statehood as the final direction of the programme. Independence led to building of several central and state government offices and the in-migration of people for government and non-government occupations. Agartala municipality's size increased from 7.7 km<sup>2</sup> and six wards in 1901 to 15.810 km<sup>2</sup> and 13 wards in 1983. Banamalipur, Krishnanagar, Ramnagar, Joynagar, Dhaleswar, Pratapgarh, Arundhuti Nagar, Abhoynagar, Indranagar, and Kunjaban formed the Agartala Municipality. From February 10, 1988, until January 9, 1996, the municipality was administered by a government-appointed administrator. The 74th amendment to the Indian Constitution authorised the Tripura Municipal Act of 1994, which took effect on October 26, 1994. As a result, the municipality grew to a total area of 16.012 km<sup>2</sup> in 1995, with 17 wards. The city had a total area of 62.60 square kilometres in 2004, including 25 villages from Lichu Bagan, Barjala, Chanmari, Chandrapur, Nandan Nagar, and Jogendranagar, 16 villages from Dukli R.D. Block, seven villages from Mohanpur R.D. Block, and two villages from Jirania R.D. Block (Agartala Municipal Corporation, 2018)



Source: Prepared by Author based on the Google Earth Images, 2018.

**Map: 3**

## Conclusion

The history of Agartala dates back to the 18th century. New Agartala was referred to as the "*New Haveli*," whereas Old Agartala was called the "*Old Haveli*." The city of Agartala is located in the flood plain of the Haora River, bordered to the east by the Baramura range and to the west by the Bangladesh plain. Haora and Kata Khal, two sizable rivers that drain the city's core, regulate Agartala's drainage system. Land use/land cover picture of Agartala city provides crucial information for urban planners to understand the existing patterns of land use in Agartala city. As it has identified the spatial expansion of the city. Planners can use it for future development, and ensure balanced growth across the city. By analyzing the land use patterns, planners can identify areas that require improved connectivity and accessibility, and make informed decisions on infrastructure investments.

Origin and spatial expansion of city will help in the identify areas at risk of environmental degradation, such as deforestation, urban sprawl, or encroachment on natural habitats. So, different participant can apply this knowledge to develop policies and regulations to protect sensitive ecosystems, promote sustainable land management practices, and conserve natural resources. Growth rate and expansion of the city emphasizes to implement appropriate measures such as land zoning, land-use regulations, and early warning systems to minimize the impact of disasters and ensure the safety of residents. The nature of land transformation and expansion in a particular direction would be better for formulating agricultural policies, and promoting efficient land use practices. Planners can utilize this data to establish conservation strategies, create green corridors, and protect critical habitats.

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