Editorial

Volume 4 issue 2 is here with us. This issue contains nine papers namely covering various topics like immersive technology, cryptocurrency, service quality, sustainability, education, and consumer behavior. These studies are good exploration and testing of the ideas with scientific findings.

This edition of journal is coming out with CITE Factor, DRJI and ESJI. The application for RJI and Scopus is under process. I appreciate the editorial board for their guidance, attention and sharing ideas and knowledge with the team. I appreciate the contributors for their immense work and sharing.

We are striving to make this journal more useful, focused, and thorough to better fit the expectations of the domain and academia.

Your feedback and suggestions are highly solicited.

Arun Kumar
Editor-in-Chief
IJRBS

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Issues in Enforcing Cryptocurrency Contracts: A Legal Perspective

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Abstract

This paper examines the interplay of enforcing contracts that are based on cryptocurrency as consideration. The technological basis for implementing cryptocurrency using block-chains are described, and its volatility is discussed from a historical perspective. The underlying legal basis for contract enforceability is discussed as well the issues related to the consideration's adequacy and sufficiency. Validity of cryptocurrency contracts are discussed from a standpoint of the legal theory of illusory contracts. The paper provides some guidance for contract formation within the virtual worlds spanning multiple jurisdictions and utilizing cryptocurrency.

Keywords

Blockchain, Bitcoins, Cryptocurrency, Contract Law, Illusory, Mining Cryptocurrency.

1. Introduction

Blockchain based cryptocurrencies, such as the Bitcoins, has been gaining a general acceptance by the business community. Bitcoins transactions can be made through wiring the currency. The signature of the sender is a unique security code encrypted with 16 distinct symbols that are decoded by a purchaser to obtain the cryptocurrency transferred. Bitcoins can thus be used for buying or selling goods and services. A transaction using Bitcoins as consideration gains its trust and security by utilizing a peer-to-peer the computer network that maintains a distributed ledger protected by a symmetric public key cryptography framework.

The underlying block chain technology is used for bookkeeping. Safeguarding mechanisms are built in to this framework to achieve the authorization, balance verification, prohibition on double spending, prohibition on alterations, and delivery of assets. And generally, the transactions can be completed in minutes. Since cryptography is used to ensure authorization the transactions are secure. So, the question from a legal perspective is the types of issues that could arise in entering a contract that is secured using cryptocurrency such as Bitcoin.

The paper first provides a brief overview of block chain technology and the Bitcoin framework as its specialized use case. Next, the basic requirements of contract formation, its validity, and enforceability is discussed in reference particularly to how the validity and enforceability requirements of contracts may manifest in cryptocurrency based *smartcontracts*. Note that the term *smart-contracts* generally refers to contracts secured by cryptocurrency such as Bitcoins. Finally, the set of guidelines are offered which in the author's opinion, should be followed to minimize risks in cryptocurrency contracts.

2. Blockchains

Blockchain, or a distributed ledger technology, is used for tracking database for Bitcoins transactions. Bitcoin.org defines a blockchain as "a shared public ledger on which the entire Bitcoins network relies." All confirmed transactions are included in the blockchain. Blockchain enables individuals and organizations to process transactions in decentralized manner obviating a need for central bank serving as an intermediary for the transaction verification. Instead, Blockchain utilizes cryptography and consensus to allegorically verify transactions.

While blockchain technology was originally developed for cryptocurrency, it has evolved to a point where it can provide a reliable alternative for many third-party verification use cases where currently trust brokers are utilized as transaction intermediaries. Further, the use of distributed ledger in a blockchain essentially decentralizes this trust. And in doing so, it substantially reduces costs and processing delays of transactions in comparison to traditional broker mediated transactions. There are four main components of a decentralized verification technology such as block chain. These are: (1) A mathematically proven unique voucher serving as the consideration for exchange of goods, services or assets; (2) A peer to peer network essentially comprising of individual users with connected computers without a central server; (3) A Turing complete virtual machine capable of running any computer program; and (4) A consensus formation algorithm enabling blockchain users to reach a consensus about the current state of the blockchain.

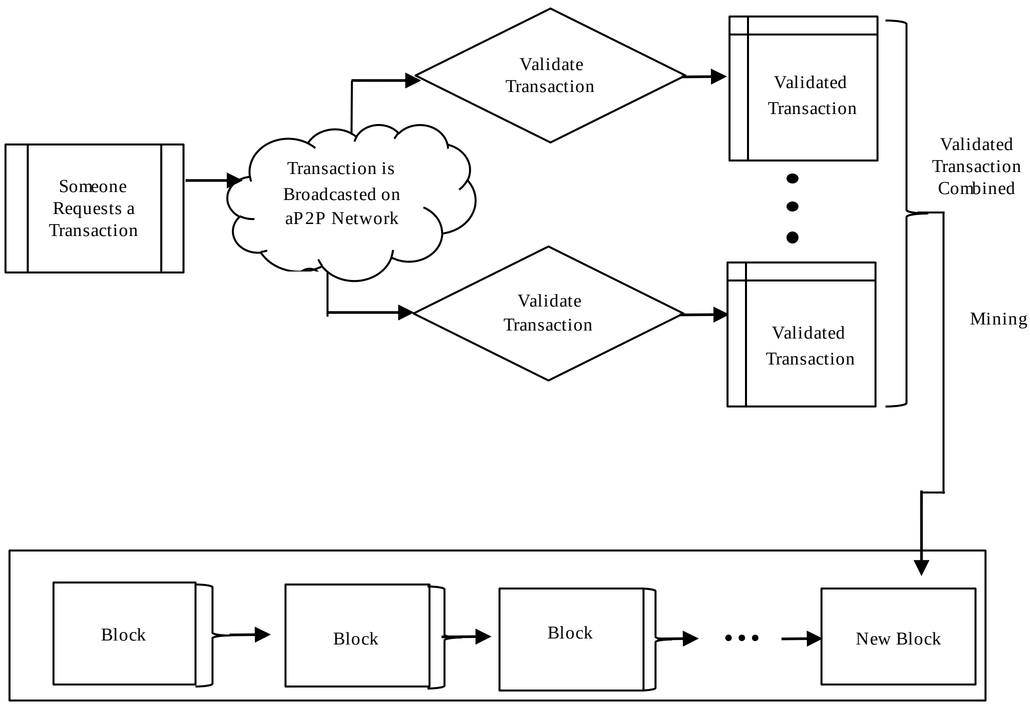

Figure 1: Result of Applying a Transaction

The distributed cryptocurrency ledger is modeled as a state machine where the ledger in a given state has a specific collection of Bitcoins owned by a given set of 20-byte cryptographic addresses (or owners). These Bitcoins that have been mined but not yet spent is referred to as UTXO or "unspent transaction outputs." Each UTXO has a denomination and an associated owner address.

A transaction contains a reference to an existing UTXO and a cryptographic signature. The cryptographic signature is generated through the use of the private key for the UTXO-owner's cryptographic address. Each transaction produces one or more UTXOs to be added to the new state (i.e. the recipients of the Bitcoins). A transaction is applied only when it is able to sustain the ledger's integrity. That is, when the sum of all the input UXTOs equal to or greater than the sum of all the output UTXOs.

As an example of the protocol, consider the following example. Suppose Adam wants to send 3.4 BTC to Betty. First, Adam will look for a set of available UTXO that he owns which total up to more than 3.4 BTC. Then he creates a transaction with all those inputs. With 3.4 output, BTC assigned to Betty, any left over BTC will be assigned to as output to back to Adam as left over change from the transaction.

The challenge is to implement this transaction using a distributed ledger such that a consensus is maintained at each stage of any transaction. As the blockchain underlying Bitcoins has to maintain and enforce this consensus, its peer-to-peer network produces a "block" of transactions every ten minutes. Each new block in the blockchain contains a timestamp, a nonce, a reference to the hash of the previous block, and a list of transactions occurring after the previous block. Thus, a persistent blockchain representing the latest state of Bitcoins ledger is maintained.

The algorithm for adding a new block requires ensuring that (a) the previous block being referenced by this block exists, (b) is valid, (c) the timestamp of the current block is greater than that of the previous block, and (d) the current block includes a valid "proof of work." The concept of a proof of work relies on Bitcoins mining and is vital to the progressive addition of blocks to the Bitcoins blockchain as further explained below.

Bitcoins mining is the process of determining a target hash to be used in addition of a new block to the Bitcoins blockchain. It entails the execution of a hashing algorithm by first taking the timestamp and the hash value of the header information in the most recent block. Further, the list of transactions to be encoded into the new page are added and with the hash value of block contents computed as a Merkle Tree. A miner must add a "nonce" – a 4-byte number used once – to this value and compute the resulting hash value. If this resulting hash value is less than the target hash value, the newly encoded block is added to the block-chain. It is a process of computing this nonce that is referred to as the proof of work. The miner who accomplishes this task gets to add a new block to the blockchain and paid in cryptocurrency for their efforts.

3. Research Methodology

The process of adding a new block to the block chain entails the selection of all the transactions that the miner wants to include into the new block, plus a single coinbase, or coin-generation, transaction to their own address. They may include any transactions they want and form a tree of transactions hashed into the Merkle root and referenced by the header of the new block.

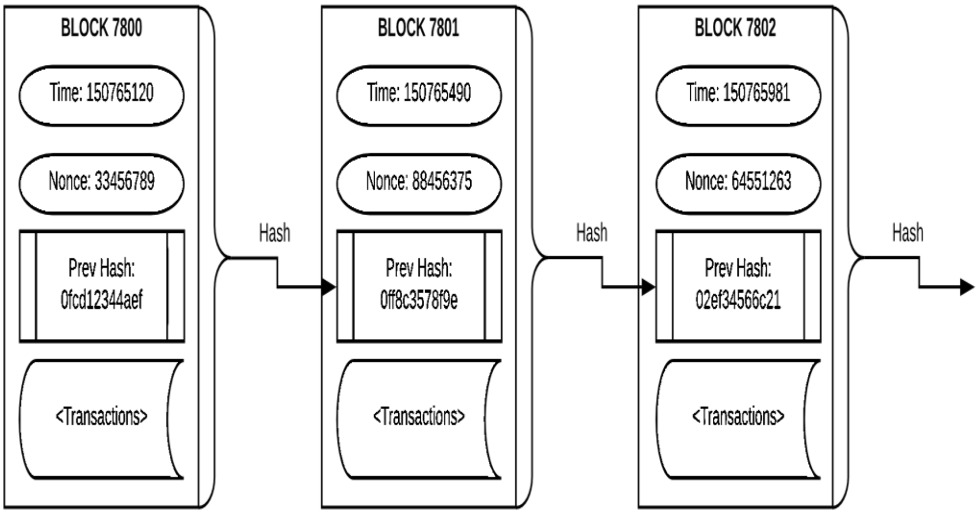

Figure 2: Mining a New Block to Insert into Blockchain

The blockchain, or the network of distributed ledgers, only accept those blocks that contain valid transactions. A valid transaction defined as the one that contains valid inputs with unspent UTXOs with valid cryptographic signatures.

A new block comprises of a 4-byte version number, a 32-byte hash value of the previous block, a 32-byte hash representing the Merkle root for the tree of the current block's transactions, a 4-byte timestamp representing the number of seconds elapsed since 1970-01-01 00:00, a 4-byte number representing the current mining difficulty level, and a 4-byte nonce representing mining.

Thus, when a miner enters the game, it tries a nonce of 0 and checks if the hash in under the current target. If the current target is not met, the miner increments the nonce and hash again and tries again. This process is continued until the block hash falls below the current target. At this point, the miner's block's header and its associated transactions are added to the block chain. And, the amount of Bitcoins specified in the coin base for the newly added block are credited to the miner's address.

4. Smart Contracts

Smart contracts facilitate business transactions enabling an exchange of anything of value such as goods, money, shares, and property with the use of a blockchain. Being on the blockchain the transactions are fully transparent and help prevent fraudulent double sales. And do this in conflict-free manner without necessitating the services and expenses of a retaining a broker or a middleman. Smart contract transactions are thus lightweight and facilitated electronically. When Bitcoins, or any agreed upon consideration, gets credited into the seller's account, the corresponding benefit of the bargain is credited into the buyer's account. Moreover, since smart contracts maintain this ledger transparently, the block chain can also automatically enforce the obligations of the contract with the rules and penalties agreed upon by the parties.

Smart contracts are computer programs, or agents, that autonomously execute the terms of a contract. Smart contracts can enforce the terms such as for example, if the payment of a specific asset is not made timely, an enforcement software program may revoke the access to the resource. Therefore, the realm of the cyber-world is extended to the physical world through interface to the IoT devices.

Cryptocurrency such as Bitcoins provides a fair and automated access to consideration in a secure decentralized transaction mechanism such as blockchains can programmatically enforce any agreed upon terms of a contract. As an example, the Ethereum framework supports the Turing-complete code. This, in turn, enables the enforcement of decentralized smart contracts. Ethereum is fed by source data from trustworthy secondary sources such as websites that provide relevant data about the physical world such as the location of real objects, such as an automobile or a machine, which is needed for automated enforcement of contracts.

The reliability and availability of these data feeds sometimes referred to as “oracles,” continues to be a challenge and is an obstacle for the full realization of the power of implementing decentralized smart contracts.

5. Crowdfunding – Trading with Trust

Crowdsourcing has generally been referred to as a firm solving a business problem using ideas, feedback, and solutions for internet users. Along the same vein, Crowdfunding is the practice of raising funds from a number of Internet users and has been defined as an open call by a company to its Internet users to provide financial resources either as donations or in exchange for some rights in the company. Crowdfunding is a common mechanism utilized by starting entrepreneurs looking to fund new ventures with the support of small contributions from a large pool of individuals. Crowdfunding is facilitated by the internet and obviates the need to engage financial intermediaries.

Unified blockchain based equity crowd-funding platforms provide distributed ledger where a company could exchange shares directly with a number of investors in a secure and transparent manner with complete data-integrity with substantial immunity to data tampering. Using a blockchain, issues such as double payment for single security are resolved and transfers of the company shares are permanent. Further, the blockchain maintains the ownership of the assets which dispenses the need for maintaining paper certificates of ownerships.

5.1 Security and Exchange Commissions

One advantage of the ability to transfer funds from investors to entrepreneurs’ account using a peer-to-peer platform is that the need to set up a trading platform where a centralized tracking of assets is eliminated. With persistent transactions retained by the Blockchain, a stock ownerships levels and registration of stockholders for exercising their voting rights are automated and error-free and transparently accomplished at the conclusion of the fund raising phase.

One key advantage of using blockchain is that the need to utilize a secure broker for strict compliance with regulatory framework for investing can be eliminated. There is no need to maintain a capital pool, as in a centralized investing scenario, since the consideration and the quid-pro-quo moves directly between the parties with no need for a middleman. This saves the additional cost and the potential risk associated with a centralized broker.

6. Issues and Legal Challenges

The traditional requirements for contract formation include a mutual assent, offer, acceptance, and consideration. Within the context of cryptocurrency and smart contracts, two issues are significant. First, whether when a contract is entered into a blockchain through the interactions of agents, is there legally cognizable mutual assent – that is does the parties actually had the intention to enter the contract that the software agents entered into. And second, is whether the contract is supported by adequate consideration, or rather legally recognized consideration.

6.1 Mutual Assent

With regards to the first issue, a business is cautioned to verify that the software agents, working under the agency law, have the level of authority necessary to bind their principal. And second, how can a smart-contract offeror and offeree in fact verify that the agents have such binding authority. Within the context of online shopping, a business initiating a transaction must make sure that the obligee has been contractually bound before making an irreversible transfer of the consideration. This is significant because the obligee can repudiate on grounds that they never intended to be bound by the contract given that there is no legal enforceability of smart contracts entered into by agents, the situation is more akin to that of a trust based economy.

6.2 Consideration

Every legal contract must be supported by adequate consideration. Courts are not generally concerned with the sufficiency of consideration as the aspect of mutual assent, another requirement for contract formation discussed above, inherently accounts for consideration's sufficiency. However, parties can seek a judicial review of the adequacy of contract's consideration – particularly to ensure that the contract is not illusory. That is, what appears to be a benefit of a bargain is in fact just an illusion. For this reasons, contract for prediction of future or accurate *tantric* readings are considered illusory and unenforceable.

Within the context of contracts supported by cryptocurrency, the logical question to ask is whether a court could potentially consider these to be illusory as well. To answer this question, we must compare the cryptocurrency with other non-cryptocurrency based consideration such as cash, promissory notes, or negotiable instruments. The common theme we find is that a collateral backs up non-cryptocurrency contracts. For example, all cash transactions are guaranteed by the country's reserve bank, negotiable instruments guaranteed by the maker's bank and the bank's insurance company, and typically notes are backed by a collateral, and securities by the issuer's assets. There is no such centralized collateral that backs up cryptocurrency. The exchange of bitcoins is essentially similar to a barter system where the valuation of commodity being exchanged is determined by the entities exchanging the commodity taking the transaction out of the realm of regulatory schemes of consumer protection.

6.3 Adhesion Clauses

Adhesion contracts are generally unenforceable because the courts view them as lacking mutual assent. When one party is forced to accept the terms of a contract, there is, in court's view, no quid-pro-quo and therefore no meeting of the minds.

Blockchain contracts have a semblance of adhesion contract. When the terms are agreed upon, the exchange is complete, and a record is made into a distributed ledger. This being an irreversible step makes the transaction akin to an adhesion clause in a contract. On the flip side, however, theoretically, the transaction may be reversed upon the initiative of the recipient however under a court order. However, the pre-condition of the reversal transactions are met will not be in the control of a court, but rather in the control of the state of the blockchain.

For these reasons, a blockchain transaction should be viewed as an agreement to an adhesion clause within a contract.

7. Illusory Contracts

In *Century 21 American Landmark, Inc. v. McIntyre,* 68 Ohio App.2d 126, 427 N.E.2d 534 (1980), an Ohio court provided a means of an illusory contract. In that case, the court stated that "a contract is illusory only when by its terms the promisor retains an unlimited right to determine the nature or extent of his performance; the unlimited right, in effect, destroys his promise and thus makes it merely illusory." *Id.* at 536-37.

This would be the case when the contract between two parties was terminated by the actions of the third party. An illusory promise, one which "by its terms makes performance entirely optional with the promisor," cannot form the basis for a valid contract, *Pardieck v. Pardieck,* 676 N.E.2d 359, 364 n. 3 (Ind.Ct.App.1997), because "a contract is unenforceable if it fails to obligate [one party] to do anything." *Indiana-American Water Co. v. Town of Seelyville,* 698 N.E.2d 1255, 1260 (Ind.Ct.App. 1998).

At a fundamental level, the enforceability of any legal contract has to be assumed for society to place reliance and faith into the promise. However, this enforceability must be outside the blockchain which in essence is a tamper-free distributed ledger system.

In the civilized world, the courts enforce contracts. In order to enforce a contract, however, a court must have personal jurisdiction i.e. enforcement powers–over contracting parties. With geographical boundaries becoming fuzzy on the blockchain, this becomes a difficult proposition for a smart contract to guarantee. Consequently, with no guarantee of enforceability, it can be argued that smart contracts and other crowd funding contracts are in fact illusory. Care must be therefore taken to ensure that the contract language is incorporated with the blockchain transactions where parties' agent submits themselves to an agreed upon jurisdiction and venue.

8. Conclusions

The paper presented an overview of the blockchain technologies and the role of cryptocurrency, such as bitcoins, within the context of business transactions. Some typical applications such as smart contracts and crowdfunding using blockchain were discussed. Legal issues relate to the enforcement of such transactions were then described. In conclusion, it should state that the blockchain base system is a trust based, barter system where the value of a good or service is essentially levied with a commodity, namely the Bitcoins. While exchanges exist for converting bitcoins into currencies, there is no authoritative guarantor for this commodity the value of which is established by the value that peers place on it.

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Role of Immersive Technology in the Business Communication Today

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Abstract

Mediated Communication has created a mindless maze of human interaction in the 21st century where we are laughing, crying and progressively doing business together. Very interestingly, this phenomenon of prolifically growing human networking is not restricted either by geography or by culture anymore. Hence, this schmoozing is confidently permeating the global fabric today. A significant deterrent that is hindering this digital socializing is human language or the diversity of it across the world. As a result, the fast track movement from living in a shrinking ‘global village’ to that of intimate ‘customized cottages’ is also majorly challenged by the languages that we speak across the world. On the other hand, the business also struggles with factors like literacy and the lack of it. Especially in contexts like India, business communication thus contends with this double jeopardy of a multilingual society where dialects change every 100 kilo-meters, along with the poverty induced problems like illiteracy and semi literacy. As a result, business campaigns and promotions frequently lose their edge with changing dialects. In addition, and very recurrently, commercial promos and text driven advertisements often draws a blank as the target population remains apathetic to reading. All this adds up to ask for a paradigm shift where one intrinsically realizes that new wars cannot be fought with old weapons. Communication must be reinvented, and mediation reinforced in the process of communication. New interventions in the process of communication would, by and large, require the adoption of new technology with an implicit understanding of their governing principles. One such domain is that of the unfolding ‘immersive technology’ which has already found a gain stay in defense research & studies and medicine. Based on simulation and augmenting reality, immersive technology offers an array of possibilities that appears to be the new panacea for 21st century business communication.

Keywords

Shrinking World, Changing Dialects, Illiteracy, Paradigm Shift, Mediated Communication, Immersive Technology.

1. Introduction

A critical if, not the foundation of globalization is 'business'. New needs of expanding trade and commerce across national and geographical boundaries require a new attitude and a capacity to accommodate. This accommodation would primarily be in terms of diverse culture and the plurality of languages. No longer the outlook, 'different is strange' and 'strange is evil' can survive in a globalized context as the need for expanding trade would necessarily mean an expanding clientele. In the global context, this growing clientele would mean a natural connect with different and differing cultures, customs and worldview. In this context, the relevance of a link language or a language that would take the 'product' to the client across the boundaries that business has travelled still remains a very difficult challenge. The pragmatic solution so far has meant adapting to the local culture and lingo as far as possible. This has its own costs and overheads. Big business can afford this and most has with an *élan* and hence we are today looking at a congenial market today where brands from 'strange lands' have found a comfortable niche both in our homes and hearts. But, as said before, this comes with a price tag that cannot easily be picked up by many enterprises.

Along with the multiplicity of languages and culture, comes the challenge posed by poverty in developing contexts like India. A major factor in such circumstances is literacy and the lack of it. Where, first with the frequently changing dialects, scripts also change and with the changing scripts, transformation comes in taste and attitude. Thereupon comes the next hurdle of a barely literate and the illiterate segment of society who are the major constituent of an ever-growing market. Business cannot afford to ignore them and must contend with the entire scenario. Added to this, the 21st century business also must reckon with the other constituent of the market the growing population of a young and upcoming generation that is progressively getting apathetic to read but simultaneously is technology savvy and hence well informed and capable of taking major decisions for themselves. In such a situation, text-driven business promotion ideally should get supplemented with if not replaced with something more appealing and entertaining but equally capable of carrying the message home to the client or target audience.

2. Infotainment - Integral for Communication

A fundamental principle in communication believes that 'seeing' is better than 'hearing' but the best results are achieved when the audience is made to 'experience'. Traditional communication has matured enough to almost perfect 'audio-visual' communication and the result is our electronic mass media. Across the globe, we witness a sustained evolution of this media which is consistently used by business communication. The rampant 'commercial breaks' that often interrupt the programme we enjoy are at the brunt of global audience rebukes, but the wise knows the undeniable economics behind it. The electronic media has taken communication to the next level where amazing outreach has become possible. But this also has come at the price – the intimacy and charm of a communication based on near proximity.

Familiarity with and ownership of content, the proximity between the interlocutors, homogeneity and an unchanging pattern of communication are significant typicality of the folk media which, in an increasingly urbanized context has become fragile and anemic today. But, paradoxically, it is still exotic enough to seek may be even demand attention from both academics and the enterprise. Attention it deserves as one realizes the typical constraint of this unique media – its fundamental apathy and inertia towards imbibing technology. With this functional divorce from technology, folk media restricts itself and mostly surrenders to the limitation of distance and the familiarity of a stereotypical community. This makes this media almost completely dependent on community generated, approved and appreciated the content. This, in turn, tends to deprive it of both novelty and scope for innovation in most instances. For the audience, the message is by and large anticipated and becomes a recurring pattern. Predictability and familiar pattern rob this media from all possibilities of knee jerk reactions that could impinge in the imagination of the audience. This leaves little scope for persuading the audience for the new and the different. The mass media overcomes this to achieve impressive outreach. But, diminishing the distance in turn, take away the comfort and reverie of the familiarity of the hand holding 'little community' that folk media thrive in. This disconnect of mass media achieved with help of progressive and evolving technology is the legacy of the Guttenberg Press and as mentioned earlier, carries its own price tag. This time the cost is the loss of ownership of content, participation induced bonhomie and the celebration and festive mood of the folk media to create a sense of detachment between the audience and the communicator. Despite this detachment, the electronic media has taken outreach to the next level and we witness the global phenomena of 'the mindless consumption of media'. Undoubtedly, this has provided solace to the angst of solitude that urbanization has brought in the life of most, but beyond that it is difficult to say how it has positively influenced human behavior in the march of solidarity with sustainable development. Business communication by and large has exploited the electronic media and its outreach. But, as said at the onset that, especially in contexts of cultural and linguistic plurality coupled with poverty and infrastructure paucity like absence of electricity business must reinvent its communication to reach out to a new audience and here it necessarily toys with emerging technology for better result.

Very interestingly, we can today detect a discernible change in the pattern of consumption and production of information. This is referred to as the "Media convergence," where the dominant pattern is different and differing genres coming together to represent, interpret and perhaps even expose "reality" to the audience. [8] This takes the audience to the next level of awareness and consequently, we are progressively witnessing a growing body of educated and proactive patrons, participants and clients of the media today. We call them educated because of the awareness that we see in them and they are proactive because they are not only capable of but do galvanize the media itself. And the *hyper connectivity* demanded by this ever-growing mass of consumers is shaping the face of infotainment systems. Infotainment is the information or content which is meant to entertain and to inform. Infotainment combines information with entertainment. It is a recent development specially seen in television programme, web site features and or other presentations that combines information with entertainment. Most of today's popular fact-based television shows, such as those on the Animal Planet channel, could be classed as infotainment. [9] Communication, especially business communication cannot either deny or ignore this as this caters to the new emerging market mention at the onset of this discussion.

3. Mediated Communication - The Communication Technique of 21st Century

Technology enabled communication forays into the domain of mediated communication. Technology has helped communication to bridge distance and even time. This is what 'growing business' needs in a shrinking world or in another sense, this is what shrinks the world for business to grow. Speed and diminishing distance have come at the cost of intimacy, comforting familiarity, spontaneous expressions which candidly allow the interlocutors to take each other for granted in a highly positive manner and similarly use the conventional, stereotypical and the clique at ease and without much ado. In current technology-based communication, message flows to receivers with an emphasis on how communication techniques influence the formation, transmission, and reception of messages. Social, political, and organizational forces also influence the creation and use of communication technologies. [5] Business is not alien to this paradigm and its communication has already adapted well to this.

Computer-mediated communication hosts a wide range of communication that passes through various channels to communicate on a global scale. In the current scenario, where computer or technology-based communication is used everywhere, email has become a standard form of communication and so has texting using smartphones as the most personal form of business communication. Undoubtedly it is non-disruptive and takes less time than a phone call, but it is still an elite paradigm of communication. Similarly, for the white collar operations, business management tools like Google Docs, Microsoft One Drive etc. helps to track the progress of projects, Google Hangouts and Skype let businessmen expand business in other locations by communicating through video conferencing, Social Networking Sites like Facebook, LinkedIn help in relation building and relationship marketing, Blogs and Websites helps in spreading the information, [6] mobile Apps offer many features like e-shopping to virtual tour etc. But, as repeatedly mentioned earlier, these are options for the urban elites and the upcoming generation of youth who are naturally technology savvy irrespective of their social background. What is the new concern for business is the vigorously emerging market comprising of the marginalized population occupying the base of the population pyramid. This is the population that is still poorly literate, victims of drudgery and poor infrastructure facilities, but are progressively growing aware due to the impressive dissemination of information done by the aggressively progressive mass media especially the electronic media. So, what we have on our plate, here is a community that must access to information. What makes them vulnerable here is the quality of information as well as the continuity of the flow of the information which often is poor. Added to this we also have the growing aspirations that we can now witness in this segment of our society and their progressively increasing capacity to purchase. In such a situation, the disconnect and the impersonality could be overcome with the finesse and the power of customization of the evolving technology. If the visual communication of the electronic media graduates to the personalized output of immersive technology through games and myriad applications, not only shall we add glamour to communication, but business will also possibly foray confidently into new markets with personalized attention to a huge population segment hitherto treated as an amorphous lump with no individuality, little taste, no choice and very shallow pockets.

4. Immersive Technologies - The Future of Business Communication

Technologies like Virtual Reality and Augmented Reality surrounds the viewer in digital content, whether that is in a VR Headset or via AR, which places digital assets into our world to enhance it. [11] Researches are being done to make Immersive technology more realistic and cost-effective.

Immersive technology is perceptual (input to the user) and interactive (output from the user) hardware technology that takes the user from physical world to a simulated or digital world which is difficult for that user to experience in reality because of barriers like money, time or accessibility etc. The penetration of immersive technologies is growing daily in multiple spheres, such as medical, military, simulators, education, entertainment, gaming and telecommunications etc. Virtual or augmented environments are being created for such purposes. Multimedia technologies are being developed to create realistic digital world. We sense our environment through our five basic senses of sight, hearing, touch, taste, and smell. Researches are being done which are targeted to give rich immersive experiences to users where such five senses can be involved. We are already aware of 3D, 4D technologies. Currently, commercial research and development targets Visual, Auditory and Tactile impressiveness. [10]

An article on Advrtas.com explains that Immersive Technology creating reality by leveraging the 360-degree space. It extends reality by coating digital images on a user’s environment. It also creates a new reality by completely shutting a user out from the rest of the world and immersing them in a digital environment. The different types of Immersive Technologies are 360, (Virtual Reality) VR, (Augmented Reality) AR, (Mixed Reality) MR, and (Extended Reality) XR and so on. Immersive Technology gives brands the opportunity to make use of consumers’ emotions. Brands are now able to showcase the benefits of their products to prospective buyers in a realistic virtual environment. For example, someone who wants to buy a new car; can test ride a car in showroom itself even before the launch of the car. Such form of advertising is a new concept which is bringing good results not only for sellers, but buyers are also like it. For example, you can see how your home would look after painting in some particular color. Paint companies and buyers can save a lot from this and earn benefits. New ad technology takes advantage of mobile phone’s features to create effective advertising. Some students have developed a Virtual Reality game that would immerse cancer patients during chemotherapy and would distract them from their pain. Immersive Technology allows medical students and doctors to do surgery simulations. Virtual reality can help students learn about the difficult processes or visit historical or futuristic places virtually. [12]

5. Conclusion

Genesis of man is the domain of scientific speculation. His evolution is documented with more certainty. But what is even more certain is the concomitant evolution of human communication. Since, we are still evolving both as biological and social beings so naturally are our manner and means of communication. New wars need new weapons so does communication to rise to the challenges of the 21st century. Technology has given speed to communicate but has diluted of not robbed it of its emotions. It has divided society much more poignantly than literacy did. But, unfortunately, literacy is creating a further wedge in this digital divide. Having mastered technology, man has begun to feel and emote again with a vigor that hankers for bonding and humane networking and there are those segments of the population who are emerging with new vigour, new capabilities and new interests. Communication, especially for and in business, must reckon with this as well. A panacea to all this appears in the Immersive Technology which is unfolding the possibility of communicating to impinge on the minds and emotions of the users and influencing their behavior like never. Business communication works to influence the choice of its clients and entice potential ones. Virtual 'walk throughs' used by the Real estates is a typical example of this. More and more can follow suit with greater results.

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Changing Gender Role in Television Advertising

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Abstract

Gender roles in India are described by the society by setting down rules for the kind of behavior which is considered suitable, appropriate, or attractive for an individual based on their sex. These rules usually do not follow the concepts of femininity and masculinity; however, there can be some exceptions and variations. In our society, roles of gender have been changing over the years across the globe. Over the years gender roles have become more flexible owing to the changing societal structure and the changing mindset of the people. People have become more open to the western culture where people are not bound by societal rules. Media plays a considerable role in creating as well as changing social norms, since a choice of media forms, including advertisements, television, magazines, and film, is available all over in current culture. Media especially television advertisements has a strong impact on changing the mindset of masses towards gender. The aim of this research paper is to observe and study the difference in perception of the depiction of males in the television advertisement of the jewelry segment and its effect on the purchasing decisions of consumers.

Keywords

Gender Role, Societal Norm, Purchasing Decision, Media and Perception.

1. Introduction

A gender role consists of a set of norms set by the society which dictates types of behaviors that are considered satisfactory, appropriate, or pleasing for an individual based on their real or apparent sex. The norms are generally centered on differing conceptions of femininity and masculinity; however, there are innumerable exceptions and variations. The expectations regarding these gendered specifics may vary considerably among cultures, while many other characteristics are common right through a range of cultures and societies. In earlier days societies had set very rigid roles for men and the women with attributes being labeled as being masculine and feminine respectively. The basic difference between man and the woman was that the man was considered as the bread earner for the family and one who provides the basic necessities and woman was considered the child-bearer and homemaker. Till recently women were known as the inferior sex and were considered as the prized possession of men. However, over the years with changing societies and changing the mindset, changing gender roles have been witnessed in almost every sector. The flexibility and changes that are happening in gender roles evident today has its roots in the varying societal structure.

Many factors like economic factors, advancement in science and technology, changed value system and changing needs and choices have lead to a change in preference for nuclear family in place of the joint family concept prevalent in older days. With these changes, the domain of economic and household responsibilities has changed. The role of men has been willingly taken up by women; the same may or may not hold true for men. According to the present scenario is that a girl is groomed to become an efficient career woman along with being an efficient house maker, men are only expected to excel in professional fields.

Media has a very important role to play in creating social norms and changing the mindset, because different forms of media, which include advertisements, newspaper, television, and film, are present almost all over in the present cultural scenario. Gender roles, are existing not only because society unanimously chooses to accept them, but also because they are perpetuated by the media.

Conspicuous viewers must be aware of what is offered by the media to them, and make sure they do not become part of the culture of domination. Since men and women differ in many ways, thus they are portrayed differently in advertisements. These different portrayals generally result in intended and unintended effects. Both men and women are leading highly complex lives with multiple societal and cultural roles to be played by each. Earlier men were the only earning person in the family and women were the homemakers. However, society has not changed completely and still follows some of the values from the past, where almost half of the working mothers spend more time on taking care of the children than on their careers. Even advertising has followed the customary depiction of women as homemakers and they are being used to promote several products from household goods to electronic products and automobiles.

However, if mass media portray limited roles for both men and women, people tend to assume that there are limited societal roles for men and women which can be considered appropriate. Women being shown only as homemakers make them believe that they are unable to function outside the home without the guidance of men. Similarly, the portrayals of men only as breadwinners results in men to believe that they are superior and are not part of the activities centered on the home. Men tend to believe that they do not have to play any role in child rearing, maintaining the home and various other activities. Today, the media has increased its portrayals of men and women in ways that neither conforms to not conflict with stereotypical understanding which is mainly the result of various societal changes. First, there is a considerable increase in proportion of women holding positions as compared to men in a range of media organizations. Many women are working with professional organizations so as to be presented in a realistic view of women in the media. In today's scenario advertisements also portray more non-traditional images of men, like men helping women in the kitchen or men doing household chores.

Advertising plays both a reflecting and a influential role for men and women. It is important to recognize advertising's strength in this regard and to use the power of advertising to portray realistic images of men and women so that people can connect themselves with these advertisements. Stereotypes can quickly set the stage for advertising, but this does not mean that the same types of images must be used repeatedly.

2. Review of Literature

Roberts and Koggan, (1979) examined that there has been much public criticism for the roles that have been portrayed by women in advertisements and for it some empirical research has been done. Various problem areas are identified which need research and hypotheses is presented whose exploration provides useful insights which is aimed at improving both, advertising and on the whole marketing strategy.

Wolin and Korgaonkar, (2003) conducted the survey for which the results indicated that males and females vary considerably on various dimensions where males were seen exhibiting more positive approach towards Online advertising and much positive belief towards Online advertising than females. Additionally, males prefer to purchase online mainly for useful and recreational reasons, whereas females are generally surfing the Web mainly for shopping reasons.

Hogg and Garrow, (2003) in their paper challenged the trend to represent sex as a unitary theoretical construct; and the argument is put forth for a more differentiated view of how the various psychological aspects of gender influence the use of advertising. A small-scale exploratory study is done in this paper in which the prospective impact of gender identity is examined within consumers' self-schemas on their use of advertising. 25 adolescents were administered to Bem's Sex Role Inventory (SRI) and they were asked to watch video clips of the two television advertisements. The focus group discussions related to the two identified advertisements were analyzed within the framework of the respondents' gender schemas identified via the Bem SRI scores: masculine, feminine, androgynous or undifferentiated. The important factor of gender identity to self-schemas affected how advertisement is processed and interpreted by the consumers. Since gender groups are necessarily neither standardized nor isomorphic with the sex of the individual, support is provided for a more differentiated approach to describe men and women within gender research and advertising.

Uray and Burnaz, (2003) examined gender role portrayed in Turkish advertisements on television. A detailed analysis of the advertisements airing on 6 television channels that were selected was carried out. According to the common features of the advertisements, three hundred and fourteen advertisements were coded based on demographic and attitudinal/ behavioral characteristics of the primary figures. The results showed considerable gender differences in the 2 groups of variables that were examined. The findings were compared with findings of other research conducted in different cultural settings.

An and Kim, (2007) in their paper examined cross-cultural differences in portrayal of gender role in web advertisements which compared Korea and the USA on the basis of Hofstede's masculinity dimension. A quantitative content analysis was done on the data collected in 400 online ads to obtain a numerically-based summary of different themes and roles portrayed by both males and females. Korean ads showed a larger proportion of featured relationship themes by their characters, portraying women as the main lead, and portrayed them both in family and recreational roles. At a broader level, the results authorize the use of

Hofstede's taxonomy, which supports the function of "masculinity" framework to determine appropriate advertising appeals-related which are related to gender roles. International advertisers plan a universal campaign for their products which are gender-specific which can benefit by locating the target country's position on Hofstede's masculinity index and using it as a guideline for the creation of visual images of the lead characters in the ads.

Zawisza and Cinnirella, (2010) examined the outcome of 2 experiments which investigated the usefulness of advertisements that use only non-traditional stereotypes of females (Experiment 1) or males (Experiment 2) that has been reported. The effectiveness of the ads was decided with respect to perceivers' attitudes toward female or male gender roles, respectively. The result obtained from the two experiments was that the paternalistic ad strategies are more effective for both men and women's versions of the advertisements than the envious ones. This supported the predictions of the stereotype content model over the archetypal prediction of the negative effects of non-traditional gender depictions for the utility of the advertisement. It was also observed that attitudes toward gender roles played a very limited role in determining ad usefulness.

Furnham and Paltzer, (2010) in their paper an updated review is presented where 30 studies have been published since 2000. The paper updates review considered 30 studies in over 20 countries published between 2000 and 2008. Studies were from Australasia, Austria, Bulgaria, Ghana, Hong Kong, Japan, Kenya, Korea, Malaysia, Mauritius, New Zealand, Poland, Russia, Serbia, Singapore, South Africa, Spain, Saudi Arabia, Sweden, Taiwan, Thailand, Turkey, the United Kingdom and the United States. More than 8,000 advertisements were examined. National and differences in culture of gender stereotypes were also considered for the collection of data. The popularity and the problems associated with the research paradigm were considered in the paper.

Popova, (2010) examined some gender stereotypes in advertisements reflecting the customary views of males and females. In this paper some common gender stereotypes which are prevalent across the world is examined. The power of (gender) advertising is the main issue considered in the paper.

Banerjee and Dholakia, (2012) examined the effect of the disparity in location-based mobile advertisements on males and females in work and leisure situations. The study conducted was in a scenario based experimental design in the 2 x 2 x 2 ANOVA format. Independent variables included: Type of locations (private/public); Situations (work/ leisure); and Gender (male/female). Dependent variables, mainly included Perceptions and Behavioral intentions. Recent findings showed that men are more open to location-based ads (LBA) than women. However, in this paper, it was examined that in some situations women are more positive towards some mobile LBAs than men because both women's and men's reactions depend on the specific location and task situations.

Chan, Leung Ng and Williams, (2012) conducted a qualitative study by auto-videography examining adolescent girls' negotiation of various gender roles by using the advertising images. The paper aimed to document the study that was done. Overall, 20 adolescent girls in the age group of 15 to 18 years in Hong Kong were supposed to take pictures from the media which illustrated ''what girls or women should or should not be and what girls or women should or should not do''. The images of the advertisements captured by the interviewees and their interpretations of those images were studied. Basic seven dominant themes were secluded from the interpretations: appearance; personality; skills and work; activities, interests and lifestyle; family; health and safety; and care for public and the environment. The results proved that adolescent girls paid more attention to images about health, body structure and physical appearance showing they were more concerned about physical appearance of themselves. Female images which appeared in ads as unrealistic were highly criticized but were also identified with images that were natural and conforming. The interviewees were selected from two secondary schools that are not representative and the interviews were mainly conducted in English, which might have caused some of the participants to be restrained to present their viewpoints. The implications went a step forward in relating how media influences young consumers and helps teenagers in making certain perceptions and interpretations about what is represented by the media. The paper shows that collection and interpretation of female visual images illustrated intensely the process of gender socialization.

Noble, Pomering and Johnson (2014) in their paper examined various message appeals along with the moderating effect of gender on most commonly used procedures of ad effectiveness (i.e. ad likability, attitude to the issue, and behavioral intention) in the emerging domain of pro-environmental social advertising. The results showed that out of the three most commonly used message appeals (rational, negative emotions, and positive emotions), emotional ad appeals are more effective as compared to rational appeals. The study also shows that women are more reactive to negative emotional appeals than men, while men and women react in a somewhat similar pattern to positive emotional or rational ad appeals. Also, the study demonstrates that the measure of ad likability, frequently used as a reliable copy-test measure in commercial marketing situations, is not considered a valid measure of ad effectiveness in the context of social advertising.

3. Objective of the Study

The primary objective of the present research is to gain an understanding of the effect of changing gender roles in television advertising of jewelry in Metropolitan cities. The specific objectives of the study are:

1. To study the impact of television advertising with respect to the jewellery sector.
2. To determine the change in buying behavior due to the gender-based advertising.

4. Research Methodology

- **Research Design**: Exploratory Study. Study the jewellery advertisements that have either 3-5 sec of appearance of the central character (male/ female) or at least one dialogue of the central character.
- **Sample Size: 80**.
  The respondents were informed about the purpose of study and were requested to fill in the questionnaire in different organizations of Jaipur (Rajasthan). The questionnaire was shared to around 120 people. Out of which 80 completely filled questionnaires were obtained.

- **Sampling Techniques: Simple Random Sampling**
  Sampling Tool: Primary data were collected through the questionnaire directly from the respondents and the secondary data were collected from books, journals, research papers and the internet.
  Data Analysis: The classification, tabulation and analysis of data are done to study the relationship between the dependent and independent variable. The data collected through questionnaire were analyzed through Excel.

5. Research Design

This study has adopted a descriptive survey research design in which questionnaire were administered to collect data from the respondents on the variables of the study.

6. Data Analysis and Interpretation

1. Impact of TV advertisement on purchase of Jewellery

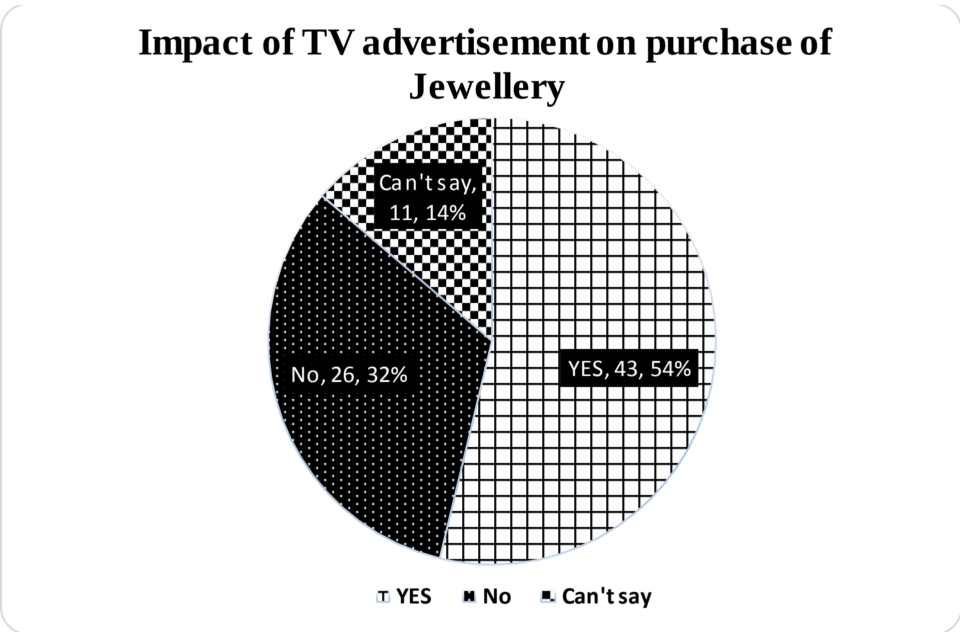

Figure 1: Impact of TV Advertisement on Purchasing of Jewellery Product

Interpretation

TV advertisement has an impact on purchase of jewellery products by the consumers as it was suggested by 54% of respondents that TV advertisements are having a strong influence on the purchase of jewellery products.

2. The celebrity remembered at the time of Jewellery Advertisement–

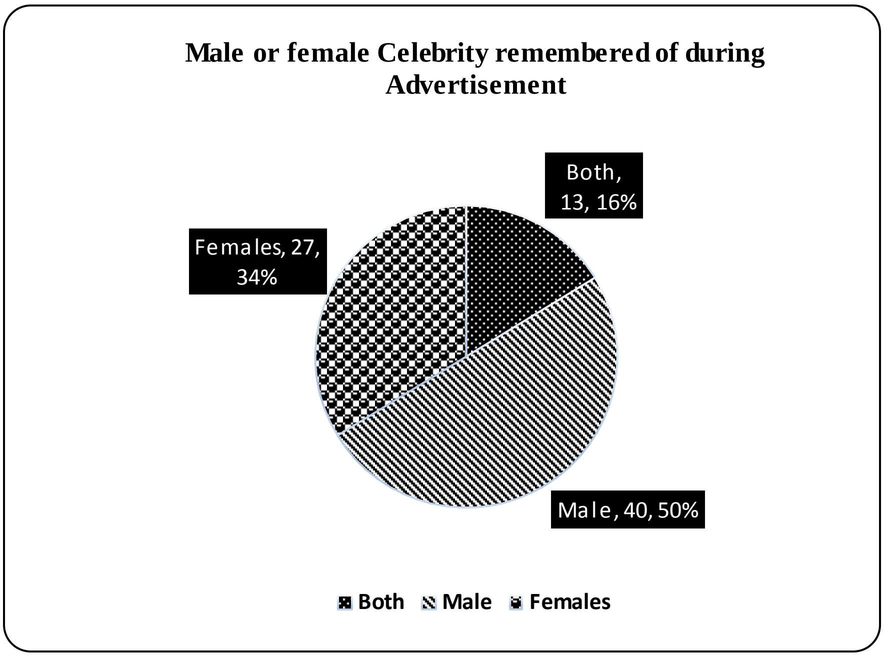

Figure 2: Male or Female Celebrity Remembered of During Advertisement

Interpretation

The analysis showed that 50% of the respondents remembered Male celebrity in the Jewellery segment advertisement. The respondents gave the name of Male celebrity while thinking about these advertisements. And 16% remembered both males and females.

3. Factors Influencing Purchase Decision

(a) Price

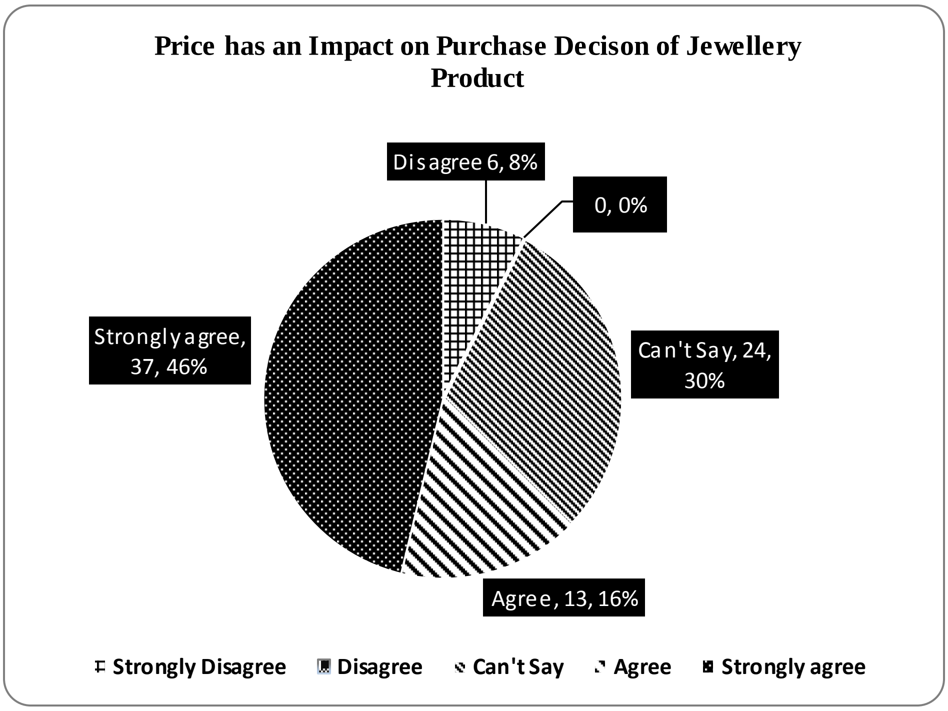

Figure 3: Price has an Impact on Purchase Decision of Jewellery Product

Interpretation

59% (46+13) of the respondents suggested that one of the important factors that determine the buying behavior of people towards Jewellery is the price of the product.

(b) Brand

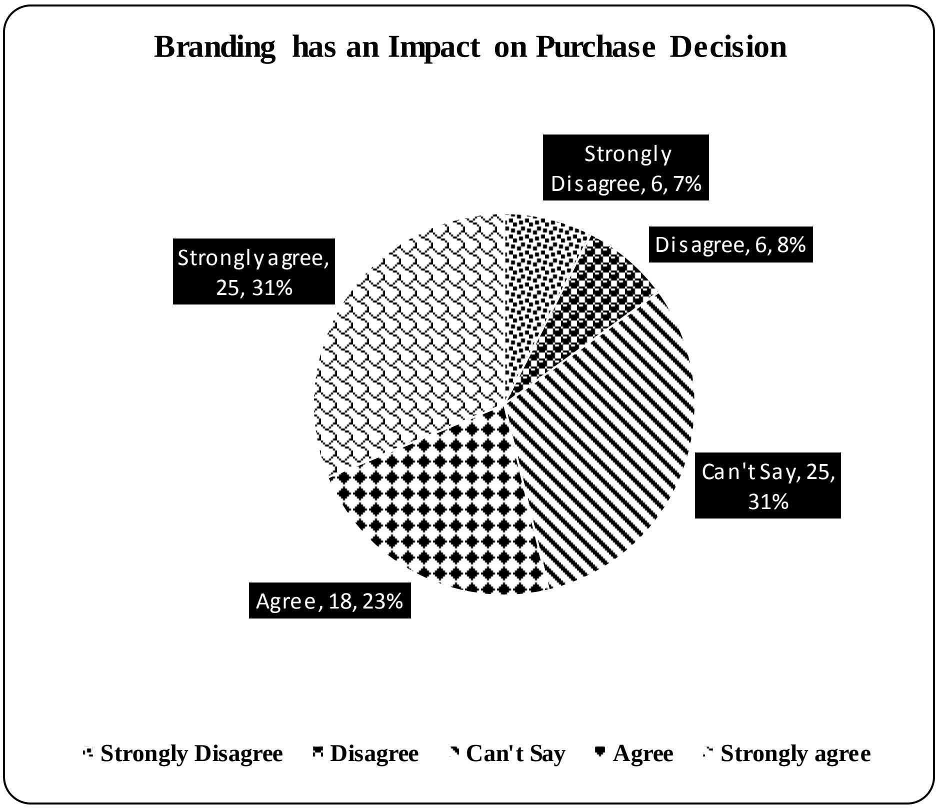

Figure 4: Branding has an Impact on Purchase Decision

Brand has a strong impact on the purchase decision of the respondents as 54 % (23+31) of the respondents are in favor of relying on brands while purchasing jewelry.

(c) Peer Appreciation

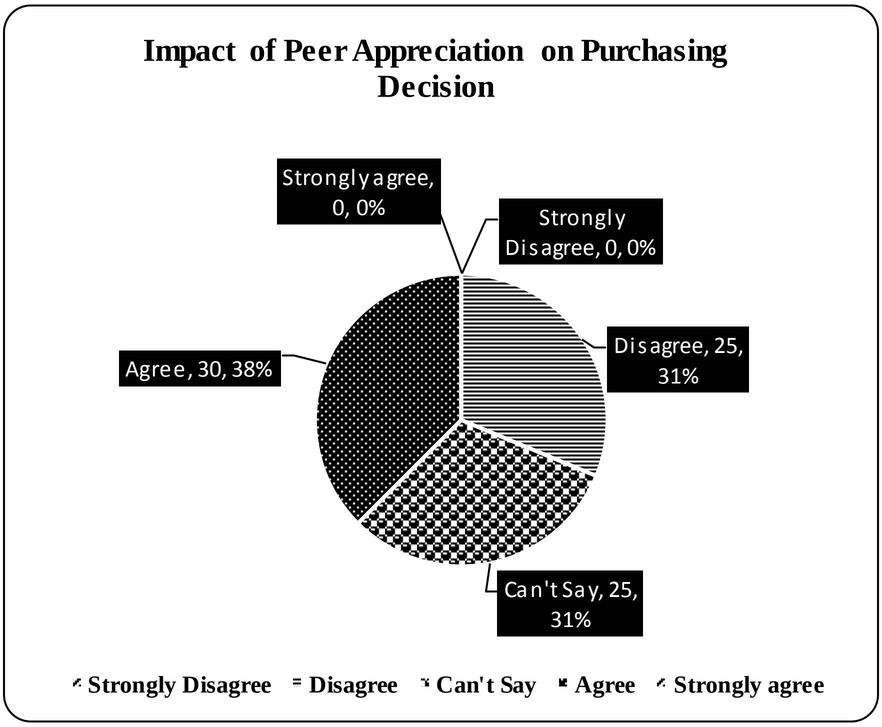

Figure 5: Impact of Peer Appreciation on Purchasing Decision

The graph reveals that 31 % Disagree with the fact that their friends or relative appreciation has an impact on purchasing decision. 31% said that they cannot tell whether there is an impact or not on the purchasing decision.

(d) Quality

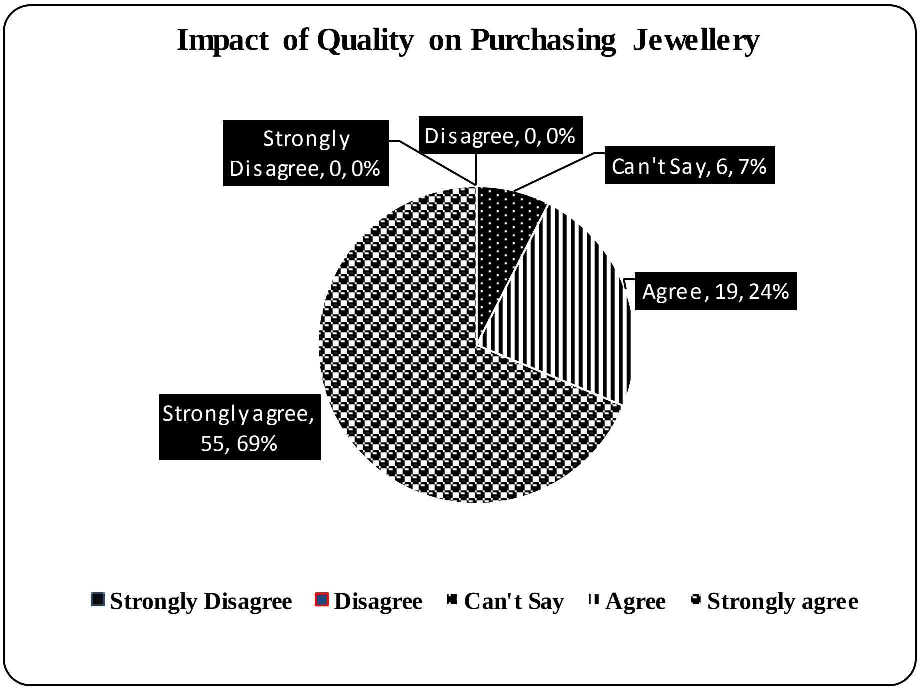

Figure 6: Impact of Quality on Purchasing Jewellery

Quality of Jewelry product has a strong impact on the purchase of Jewelry, as around 69% of respondents stated that they definitely consider the quality of products while purchasing it.

6. Conclusions and Suggestions

The data analysis revealed that TV advertisement has a strong impact on the decision making of the customers while purchasing jewelry.
The study also suggested that the male celebrity in different jewelry advertisement has a strong effect on the purchasing decision of customers. It is expected that female celebrities or females in the jewelry advertisement would have a strong impact on the minds of the customers. But the research reveals that male and female, both celebrity endorsements have an impact on the decision making for the purchase of jewelry. The result reveals that the male celebrity endorsement gives greater credibility and reliability to the jewelry brand.

Jewellery brands those who have not involved male celebrity should involve them in advertisements. This is going to definitely position their company or brand over others in the market.

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Student Satisfaction: on Service Quality (SERVQUAL) in Indian Management Education: Empirical Evidence from the State of Sikkim, India

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Abstract

The quality of higher education is the need of the hour. The quality parameters of service quality of teaching should be on par with the global standards. The technology-based education using creative teaching techniques is only helping the students to cope up with the requirements of the industry. In this parlance, the current paper has explored many dimensions of quality using SERVQUAL model parameters. The service quality of the Indian Management Educational Institutions including higher educational institutions offering business management-related course is poor and substandard. The study on service quality assessment has already been done in the field of engineering education and school education. But there is no specific study observed in the literature with regard to higher educational institutions offering business management education. With this view, the current research assesses the impact of various dimensions of service, quality on the overall service quality and the influence of overall service quality on the level of satisfaction. The research can help in identifying the service quality issues in terms of standard parameters and its impact on overall service quality, thereby satisfying the stakeholders. It attempts to measure service quality from students' point of view, preparing students for the needs of the corporate, up gradation in terms of physical and intellectual infrastructure of the institute. In addition, competition in the higher education makes the institutes to provide best service standards and customer services to compete and sustain in the long run and focus more on quality services in order to serve the students in a better manner and to improve the satisfaction level.

Keywords

Service Quality, Higher Education, Educational Institutions, Students Satisfaction, Indian Management Education, Quality Standards.

1. Introduction

Higher education, similar to most of the business and corporate today, is ever more worried about the quality of its products and services [1]. At present, the past reviews relating and pertaining to service quality in higher education sector are extensively undeveloped. Conservatively, many investigators have compensated and consideration their exertions on viable services. Since any other intangibles, management education colleges and institutes are as well an innovative kind of service sector. In today‘s reasonable educational setting like most business and management schools is gradually more worried about the implication of quantifying service quality [2]. Management education has seen a distinguished growth in India within the later years as reflected contained by the vertical and the sharp rise fenced by the assortment of institutes as extended as postgraduate programs in management education. With the growth within the diversity and kinds of business faculties, there are intensifying concerns about preserving the excellence of management education between the countries through quality service [3, 4 & 5].

Education is such an important and productive speculation that it always plunder in manifold ways. It has forever been accorded a privileged place in every saving. The strong and effective educational organism results in the economic enlargement, social alters and greater recital of the students. Thus, education sector plays a more and more important role in behind public education by gathering insist for products and services that together complement essential education services and in addition their fundamental goals [6]. The sector is clear by four main categories: Products, Services and Education Service oriented Businesses. As a result of globalization, Indian economy strongly influences higher education to pick up the excellence of existence [7].

2. Objectives of the Study

- To identify the key service quality (SERVQUAL) dimensions in business management education in Sikkim.

- To examine the relationship between Pre and Post attributes of service quality (SERVQUAL) and student satisfaction in Sikkim.

3. Literature Review

Berry, Parasuraman, and Zeithaml's, (1988) [8] conceptualisation of five dimensions which include tangibles, responsiveness, reliability, empathy and assurance ultimately led to a model that measures service quality named SERVQUAL.

Zeithaml, Berry, & Parasuraman, (1996) [9] Studies indicate that there is a positive relationship between the behavioural intention of the customers and the service quality of the organisation.

Angell, Heffernan, & Megicks, (2008) [10] Educational institutions always tried to enhance their physical infrastructure while trying to set up programs for improving the admissions into their courses. Studies indicate that the service quality of the educational institutions is measured predominantly by using the teaching and learning mechanism that is followed in the educational institution.

Quinn etal., (2009) [11] Education institutions which tried to implement total quality improvement programs in this system has always been profitable

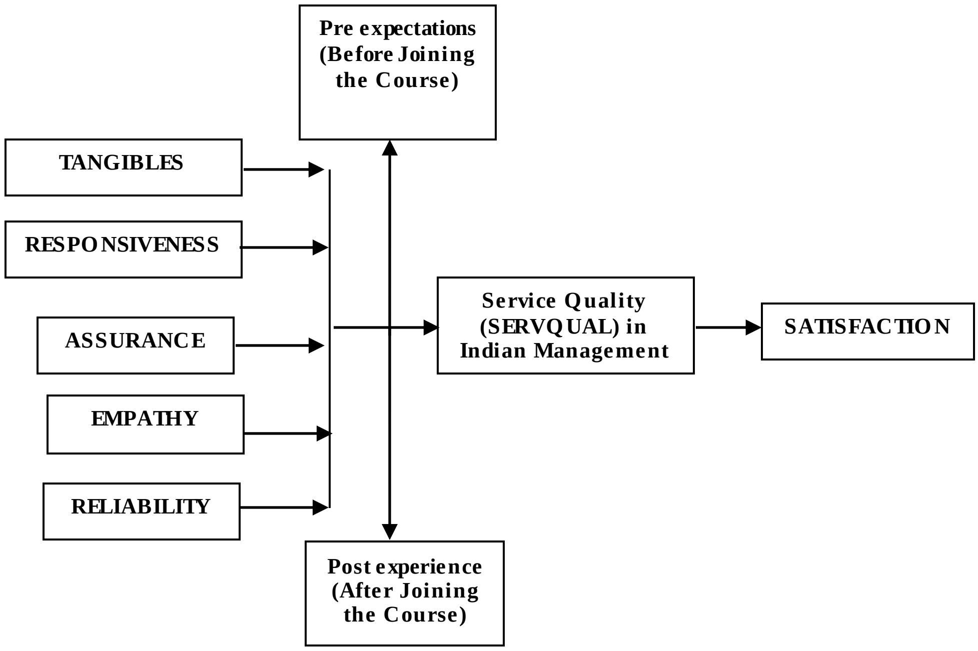
Mosadeghrad, (2014) [12] Education and training regarding the usage of product and services by an organisation for their customers helps to improve the services expected by the consumers towards the organisation.

4. Research Methodology

The major aim of this research is to analyse student satisfaction on service quality (SERVQUAL) in management education with reference to business management students in Sikkim, India. 52 samples from management students from different institutes offering management courses in Sikkim and the data were tested for reliability by Cronbach's alpha test (72.5%). Both Primary and Secondary data were collected by using a structured questionnaire and available sources respectively. The sample area is Sikkim state, India and the sampling method and technique used were Non-probability and Convenient sampling. The collected data was analysed by appropriate statistical tools using SPSS and AMOS.

The data were helped to analyse the reliability and validity analysis for structuring a valid questionnaire. Further appropriate research model has been constructed.

The current research is limited to educational institutions offering management education in the state of Sikkim and other institutes are not considered. The research is cross sectional research in nature and the research is confined to non-probability sampling. The time factor associated with the research is an inherited hindrance.



(Source: Shahin, A. (2004). SERVQUAL and Model of Service Quality Gaps)

5. Data Analysis and Interpretations

5.1 Reliability Test

Reliability is the proportion of factual difference to the whole difference capitulated by the calculating tool. It specifies strength and also the internal stability of a test. The consistency is a degree indicating the steadiness and regularity with which the tool actions the idea and benefits to measure the 'goodness' of a quantity. A portion is consistent to the gradation that it applies dependable outcomes.

Table 1: Cronbach's Alpha Reliability Test – Student Satisfaction on (SERVQUAL) in Management Education in Sikkim

S. No.	Constructs	Cronbach's Alpha Value
1	Tangibles	0.781
2	Responsiveness	0.632
3	Assurance	0.851
4	Empathy	0.741
5	Reliability	0.625
6	Student Satisfaction	0.723
Average		**0.725**

The overall Cronbach's Alpha coefficient for student satisfaction on (SERVQUAL) in management education in Sikkim construct is 0.725, which is acceptable.

Validity Test for Data Collection Instrument – Face Validity: The mechanism is calculated based on confirmed instruments from the various past literature surveys. Sixty five item survey questionnaires have circulated to the business management students in Sikkim and identical and ambiguous variables and factors are removed. A test investigation has been piloted among fifty respondents to confirm face validity and founded on the response 45 variables are nominated.

5.2 Communality Test

Communalities are healthier at the period of model construction and the minimum edge limit for founding the communality of the information and data is 0.5. All variables with communality range of less than 0.5 must be removed.

Table 2: Communality Checking for Student Satisfaction on (SERVQUAL) in Indian Management Education in Sikkim

S. No.	Variables	Communality
1	Tangibles	.656
2	Responsiveness	.700
3	Assurance	.678
4	Empathy	.745
5	Reliability	.731
6	Student Satisfaction	.659

It can be obtained from the above table that the communality range in respect of all the factors exceeds the edge limit of 0.5 and hence all items in Student Satisfaction on (SERVQUAL) in Business Management Education in Sikkim related factors in the proposed study.

5.3 Normality Test

In general footings, normality requires that the data are ordinarily distributed and normally and uniformly distributed data will result in the construction of a bell shaped curve. Normality of data and variable is crucial for arriving at CFA, SEM and deficiency of normality will harmfully affect the goodness of fit indices and declaration error.

Table 3: Normality Test for Student Satisfaction on (SERVQUAL) in Management Education in Sikkim

S. No.	Variables	Skewness	Kurtosis
1	Tangibles	-0.901	1.774
2	Responsiveness	-0.735	-0.404
3	Assurance	0.036	-0.654
4	Empathy	0.117	-1.211
5	Reliability	-0.379	-0.153
6	Student Satisfaction	-0.6	-0.326

The above table refers that the data in all the relevant items in Student Satisfaction on (SERVQUAL) in Management Education in Sikkim dynamics easily pass the normality assessment as the Skewness value is in the range between +1 to -1 and the worth of Kurtosis ranges among +3 and -3. Hence all the factors are normally distributed.

5.4 Linearity Test

Table 4: Linearity Test

R^2	F Change	df1	df2	Significant F Change
.59802	12.07891	2	379	<0..001**

Testing of direct association among the variables is significant in multivariate investigation. Further, most multivariate techniques indirectly trust that association between flexible are lined. Departures from linearity have an outcome on considered correlations among variables. Statistical tools such as regression, SEM and correlation can be implemented only if the data is linear.

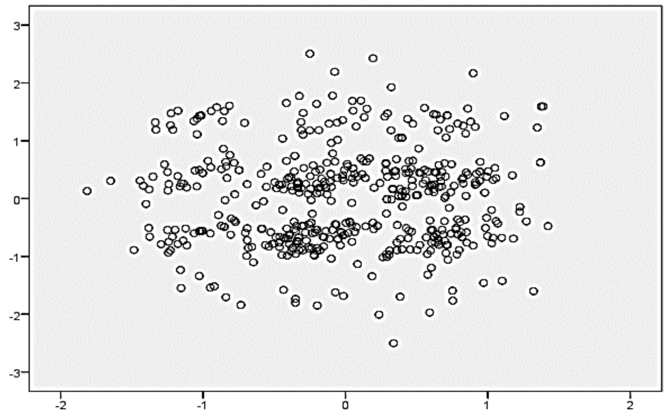


Figure 1: Student Satisfaction on (SERVQUAL) in Management Education in Sikkim

The researcher has taken two factors randomly (Tangibles and Student Satisfaction) to confirm the linearity level of the data. Adoption of Student Satisfaction is taken as the Dependent (DV) Variable and Tangibles as Independent (IV) Variables. The above table and figure focus that the R^2 value, is highly sufficient to represent that the data are linear.

5.5 Homogeneity Test

Homogeneity of data is required to smear any statistical tools and technique in all research. Homogeneous data can be gained from a unique person. Usually some external forces will disturb, change and unexpected the data, though booming the research. Openly speaking keeping Homogeneity data is a serious one. For assessment of the Homogeneity of the data set, the researcher used one categorical or demographic variable incorporated in the study.

Table 5: Test of Homogeneity of variance – Student Satisfaction on (SERVQUAL) in Management Education in Sikkim

Variables	Levene Statistic	Df1	Df2	P value
Tangibles	.941	2	379	.391
Responsiveness	.740	2	379	.478
Assurance	.532	2	379	.588
Empathy	3.531	2	379	.091
Reliability	1.473	2	379	.230
Student Satisfaction	4.521	2	379	.199

From the above table, it is inferred that the Levene statistic is not significant among all the items included in the factors. It is confirmed that those values that the homogeneity among the data is absent. Since, the data available can be used for further statistical analysis.

5.6 Multicollinearity Test

Multicollinearity presents if two or more independent variables assess the same thing. The correlation values exceeding 0.90 in respect of variables in the same dataset can cause statistical problems. To evaluate multicollinearity, item to item correlations are calculated between each item. It helps to solve the multicollinearity problem in the data set. Multicollinearity is checked for all items under study.

Table 6: Correlation for Student Satisfaction on (SERVQUAL) in Management Education in Sikkim

	Tangibles	Responsiveness	Assurance	Empathy	Reliability	Satisfaction
T	1					
R	0.711	1				
A	0.717	0.645	1			
E	0.706	0.686	0.712	1		
R	0.679	0.687	0.658	0.685	1	
S	0.719	0.718	0.708	0.711	0.712	1

It can be detected from the above table that the correlation coefficient value in detail of all the variables does not surpass the prescribed value of 0.90, and therefore, it can be concluded that there are no multicollinearity problems in the data.

5.7 Hypothesis Testing

The major contributions of the study is elaborating various statistical tools gives for testing different hypothesis and followed by findings which provide a summary of different inferences.

H_1: Higher influence on tangibles over business management student satisfaction on service quality.

H_2: Higher influence on responsiveness over business management student satisfaction on service quality.

H_3: Higher influence on assurance over business management student satisfaction on service quality.

H_4: Higher influence on empathy over business management student satisfaction on service quality.

H_5: Higher influence on reliability over business management student satisfaction on service quality

Table 7: Contribution of the Student Satisfaction on (SERVQUAL) in Indian Business Management Education in Sikkim

S. No.	Dependent Variable	Independent Variable	R^2	P value	Supported / Not Supported
H_1	Student satisfaction on service quality	Tangibles	0.603	0.001**	Supported
H_2	Student satisfaction on service quality	Responsiveness	0.711	0.003**	Supported
H_3	Student satisfaction on service quality	Assurance	0.789	0.001**	Supported
H_4	Student satisfaction on service quality	Empathy	0.698	0.008**	Supported
H_5	Student satisfaction on service quality	Reliability	0.856	0.011*	Supported

(Source: Primary Data; Note: **-indicates highly significant at the 1% level)

The null hypothesis is rejected for all five constructs with respect to Student satisfaction on service quality. The F value is significant at the 95% level. So this is inferred that the theoretical model was fitted with all the statistical parameters. Hence the five factors, such as Tangibles, Responsiveness, Assurance, Empathy and Reliability were making higher influence on Student Satisfaction on (SERVQUAL) in Management Education in Sikkim.

5.8 Analytical Hierarchy Process (AHP)

According to literature survey, there are extensive assortments of criteria that guide to evaluate criteria of Student Satisfaction on (SERVQUAL) in Management Education in Sikkim. In this study, it provides us with hierarchically representation of four major criteria which are important and are presented below:

Table 8: Priority Weights

Item No.	Item Number	1	2	3	4	5
Item Description		Tangibles	Responsiveness	Assurance	Empathy	Reliability
1	Tangibles	1.00	0.125	0.14286	0.142	0.125
2	Responsiveness	8.00	1.00	0.14286	0.125	0.1666
3	Assurance	7.00	7.00	1.00	0.166	0.1428
4	Empathy	7.00	8.00	6.00	1.00	0.1666
5	Reliability	8.00	6.00	7.00	6.00	1.00

(Source: Primary Data)

The total priority weights enclosed by the basics in the steps are recognized. All the assessment factors and its conforming weights are obtainable.

Table 9: Criteria and Attribute's Priority Weights

Tangibles	Responsiveness	Assurance	Empathy	Reliability
37.00	30.13	22.29	14.43	9.60

(Source: Primary Data)

The priority weight of the criteria and characteristic is calculated by means of the eigenvector techniques mentioned above, a pairwise comparison matrix is industrialized for each criterion, and the subsequent matrix is regularized to unify the result. To get foremost concern of a sole criteria (or attribute, or alternative) relative weights-pairwise judgments are combined by be around the conforming values.

Table 10: Synthesis of Priority Weights

Item Description	Tangibles	Responsiveness	Assurance	Empathy	Reliability	Weight
Tangibles	0.22	0.03	0.01	0.01	0.02	**45.3%**
Responsiveness	0.19	0.23	0.04	0.01	0.01	**22.1%**
Assurance	0.19	0.27	0.27	0.07	0.02	**15.0%**
Empathy	0.22	0.20	0.31	0.42	0.10	**9.5%**
Reliability	0.16	0.27	0.36	0.48	0.83	**6.0%**

(Source: Primary Data)

From the above table, it is noted that tangibles give first importance over the others. Responsiveness and Assurance were also important and ranked second and third. Empathy is given last priority overall Student Satisfaction on (SERVQUAL) in Management Education in Sikkim.

Table 11: Results of Consistency Test

Respondent	Consistency Ratio value	Consistency
1	0.282	Not Consistent
2	0.231	Not Consistent
3	0.320	Not Consistent
4	0.303	Not Consistent
5	0.248	Not Consistent

(Source: Primary Data)

The results reveal that all CR value is greater than 0.1, thus the consistency of all the judgments are not satisfactory.

Table 12: Geometric Mean of Pairwise Comparisons

Item No.	**Item Number**	1	2	3	4	5
Item Description		Tangibles	Responsiveness	Assurance	Empathy	Reliability
1	Tangibles	1.00	0.1562	0.19521	0.2357	0.16994
2	Responsiveness	6.40	1.00	0.15343	0.1716	0.18429

3	Assurance	5.12	6.52	1.00	0.1699	0.18928
4	Empathy	4.24	5.83	5.88	1.00	0.20879
5	Reliability	5.88	5.43	5.28	4.79	1.00

(Source: Primary Data)

And the group CR is calculated as **0.191,** still it is not consistent.

Table 13: Consistency Table

CR Value =	**0.223**	**Not Consistent**			
Item Description	Tangibles	Responsiveness	Assurance	Empathy	Reliability
Tangibles	1.00	0.19712	0.14877	0.17064	0.1528
Responsiveness	5.07	1.00	0.30514	0.56098	0.786
Assurance	6.72	3.28	1.00	0.15735	0.20164
Empathy	5.86	1.78	6.36	1.00	1.43097
Reliability	6.54	1.27	4.96	0.70	1.00

(Source: Primary Data)

Table 14: Best Criteria- Obtaining the Final Ranking

Criteria	**Statements**	**Weights**	**Local Rank**
Student Satisfaction on (SERVQUAL) in Indian Business Management Education in Sikkim	Reliability	6.40%	5
	Empathy	10.80%	4
	Assurance	16.30%	3
	Responsiveness	23.40%	2
	Tangibles	40.20%	1

The upshot of the analytical hierarchy process, which gives you an idea about those Tangibles, should be given more importance, Responsiveness constructs are second important. Assurance constructs third important aspect in Student Satisfaction on (SERVQUAL) in Management Education in Sikkim. Fourth and fifth important factors were Empathy and Reliability respectively.

Table 15: Best Criteria: Ranking

Criteria	Statements	Local Rank
Student Satisfaction on (SERVQUAL) in Indian Business Management Education in Sikkim	Reliability	5
	Empathy	4
	Assurance	3
	Responsiveness	2
	Tangibles	1

(Source: Primary Data)

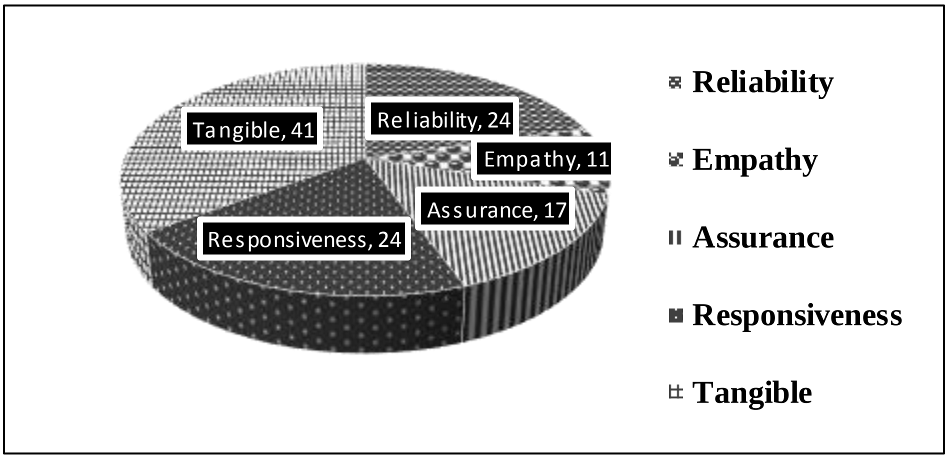


Figure 2: Student Satisfaction on (SERVQUAL) in Indian Business Management Education

6 Findings and Recommendations

The majority of the respondents' constitute postgraduate courses in Business and Management Education and the other respondents were in undergraduate courses in Business and Management Education. The average age group was founded between 20-23 years of almost equal gender with parents working in both government and private concern which may influence customer satisfaction. Out of the ten dimensions of service quality such as Tangibility, Reliability, Responsiveness, Communication, Credibility, Security, Access, Competence and courtesy, the five factors such as Tangibles, Responsiveness, Assurance, Empathy and Reliability were making higher influence on Student Satisfaction on (SERVQUAL) in Management Education in Sikkim.

The upshot of the analytical hierarchy process, which gives an idea about the Tangibles, should be given more importance and Responsiveness constructs are second important. Assurance constructs are the third important aspect. Whereas, fourth and fifth important factors were Empathy and Reliability respectively in Student Satisfaction on (SERVQUAL) in Management Education in Sikkim.

To meet industry expectations, the curriculum to be redesigned and make management education student-centric. Impart practical education through learning in industries with maximum industrial exposure & learning concepts. Diversified experienced faculty and connect theory with practical applications encourage innovation and creativity in management education pedagogy. It is important to update need based courses and diversified specialization for better employment in North East India. Improved safety in terms of infrastructure, vigilant systems, administrative procedures, rules and code of conduct in the campus, divergent thinking in times of emergency, physical and moral strength to face problems to overcome the challenges will help to improve the standards. Focus on training and development and create enlightening learning environment through better quality services in Management Education leads to better employment.

7 Conclusion

Total quality is realized by founding an inventive organization, single that is elastic, which is able to regulate quickly to vagaries in its milieu and is proficient of education. The continuous development concentration of total quality management is a vital way of gratifying the answerability necessities, common to learning improvement [13]. Functioning a no-fear TQM system with a center on incessant increase and development offers more enthusiasm and encounter to students and teachers than a "good-enough" knowledge surroundings can offer [14].

The aim of the study was to highlight the student's satisfaction on SERVQUAL in Indian Management Education. The study results of the service quality provide empherical evidence about the relationship between pre and post attributes of SERVQUAL dimensions and management student's satisfaction level in Sikkim state.

Student's satisfaction has become an important indicator of quality of service in Management educational institutions. In the present scenario, the management students are well informed and expect outstanding service quality from their institutions [15]. The institution should focus on planning and allocation of resources that includes Reliability as first priority, Assurance as second, Responsiveness as third, Empathy as fourth and Tangibility as a last priority of Quality Dimensions.

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Managing Knowledge to Promote Sustainability in Petrochemical Industry

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Abstract

Sustainable Development (SD) is essential to sustain the ecosystem and the natural resources from depletion while creating new products/ services for business sustainability. And for sustainability, knowledge plays an important role to transform information and intellectual capital to achieve organizational goals. Both Knowledge Management (KM) and Sustainable Development (SD) have been coined up as an essential solution to the global crises.

Petrochemicals are one of the fastest growing economies as it contributes significantly in the economic and social development of the country by fulfilling the needs of major industries like textiles, telecoms, power, cables, plastics, etc. The Petrochemical industry has contributed a great deal to the world development but development brought by the industry has been accompanied by considerable environmental adversity. So, the entities are expected to implement sustainable practices through knowledge management into their business strategies and to take the social and environmental responsibility for the aftermath of their actions.

In this liberalized era, it is therefore essential that petrochemical industry focuses on sustainable business practices, leading to their sustainable development and society as a whole.

The petrochemical industry should widen their understanding regarding sustainable business practices and strategies and should interpret how employing such practices, strategies may affect the business and market in all three dimensions viz, economic, social and environmental issues. The present paper is an attempt to provide a comprehensive framework of sustainable development of the petrochemical industry through knowledge management practices.

Keywords

Sustainable Development (SD), Knowledge Management (KM), Petrochemical Industry, Knowledge Management Practices (KMP) and Environment.

1. Introduction

The petrochemical industry has contributed and is still contributing to the growth of the world economy. There is something important that must be considered in this development; is it a negative or positive development? The concept of dwindling natural resources, global warming, and sustainable development has drawn more consideration recently. It has been scientifically proven that the way we live is unsustainable and will lead to the destruction of the planet's natural resources and, potentially, to the extinction of the Human race (Rees, 2009).

World Commission on Environment and Development popularised the concept of sustainable development. Sustainable development is described as "evolution that meets the needs of the present, without undermining the future's ability to meet its own needs" (Brudtland, 1987). The biggest impact on the environment when carrying out petroleum operations are the release of waste into the atmosphere affecting the value of soil, air, and water. The adverse effects can be minimized or eliminated through the implementation of a proper Knowledge Management System (KMS).

In the 2030 agenda, a study was created to prospect the relation between the oil and gas industry and the Sustainable Development Goals (SDGs) to "map the oil and gas industry to the Sustainable Development Goals: An Atlas." The goal of the atlas was to encourage petrochemicals to incorporate relevant SDGs further into their organization in to validate their current efforts and spark new ideas. Sustainability is an important opportunity for businesses that can lead to higher efficiencies, cost savings and competitiveness, and enhance social licensing.

The transfer of environmental knowledge to support sustainable development strategies requires an organization to extend its knowledge transferring ability to across the organizational boundary (Paquette and Wiseman, 2006). The importance and value of fostering an organizational learning environment through knowledge management are manifold. To identify new threats and opportunities, an organization should adapt and respond to a changing environment, which inculcates organizational learning and brings out possible strategies as a response (Husted and Michailova, 2002; Marquardt, 2002).

In view of the environmental compulsions, the change in the expectations of consumer and emerging technologies, the petrochemical industry is undergoing tremendous changes globally. The petrochemical companies are taking knowledge management as the key asset and effective tool by which they can go through these changes.

The present paper is an attempt to provide a theoretical framework for the contribution of knowledge management in the sustainable development of the petrochemical industry. The reminder of this paper has been organized into 5 sections. Section 1 presents the outline of the literature review in the form of a table. Section 2 outlines the purpose of the study and research objectives. The research methodology is described in section 3. Section 4 presents the theoretical framework for the objectives framed in the research paper. Finally, section 5 presents the findings of the study followed by a conclusion.

2. Literature Review

In an attempt to initiate a better comprehension of knowledge management and sustainable development in the petrochemical industry, the works of numerous scholars were reviewed who were highly involved in the research and practice. A brief review of the existing literature has been presented in the table below:

Author	Year	Study
Rodriguez et al.	2002	In this report, the author highlighted the significant changes in the competitive landscape through sustainable development that influence companies to improve their capital, skills, and activities, fostering the persistence of knowledge and innovation-based competitive advantage.
Roth	2003	This study develops a knowledge management initiative that facilitates knowledge creation and sharing resulting in the production of practical knowledge for action. The study examines the complex and relational nature of information by creating methods that can be used to build lateral knowledge and transfer knowledge.

Paquette & Wiseman	2006	The author has explained explores the networks that create access to the knowledge for the members of the organisation and the external environment. The author has used knowledge management based theories of networks and knowledge transfer to hypothesize about how the organisation may create and acquire environmental knowledge to increase sustainable development within the organization.
Meer & Sinnappan	2008	The author studied the role of knowledge management in the development of a sustainable organization. Key factors were examined for the use of knowledge management that could be used to provide a measure in achieving sustainability. His study has helped to advance the body of knowledge on the role of IT in sustainable development.
Mohamed and Stankosky	2009	He suggested the Knowledge Iterative Supply Network (KISN) model defining the lifecycle of knowledge which diminishes the negative impact of technology and would be a helpful guide for KM practitioners preparing to implement KM technology to support sustainable development.
Nejati et al.	2010	The author emphasized the importance of putting a sustainable development view at the core of knowledge performance evaluation effort and proposes a sustainable development framework for evaluating knowledge management performance.
Wong	2010	The author researched the relationship between KM and SD to establish a competitive advantage for businesses. A structure was built on the Mckinsey 7s Framework's underlying principles which explained Knowledge Management Practices offering a very good basis for sustainable development.

Gurumo & Lixin	2011	The author studied the environmental concerns posed by the petroleum industry and examined the importance of international conventions and challenges facing convention application. He analyzed that the change in behavior on the part of all variables in the petroleum industry as a means to conduct business in a manner that promotes sustainable development.
Anis & Siddiqui	2015	The author studied the concept of sustainability and the role played by the industry of oil and gas in achieving sustainable development. He analyzed the various threats obstructing the sustainability practices being carried out by companies in the industry. His finding suggests that sustainability programs followed by an industry of oil and gas are not satisfactory and he listed out the strategies and methodologies enhancing the effectiveness of sustainability strategies and programs for the sector.

3. Purpose of the Study

The study aims to promote a better understanding of sustainable development and the importance of information management to the petrochemical industry's sustainable development.

4. Research Objectives

To achieve the above purpose of the research, the following objectives were framed:

a) To provide a comprehensive understanding of sustainable development in the petrochemical industry.
b) To investigate the contribution of knowledge management in the sustainable development of the petrochemical industry.

5. Research Methodology

The research is facilitated using secondary data analysis that involved the works of numerous scholars who have worked on the various dimensions of knowledge management and sustainable development in the petrochemical industry. The comprehensive studies were evaluated to undertake further research and add value to the knowledge management system based literature. The paper carries an in-depth literature review of the research papers published in various national and international journals. The research objectives were framed based on the past studies and the knowledge was reused for idea generation to provide a comprehensive understanding of sustainable development in the petrochemical industry.

6. Sustainable Development for Petrochemical Industry

Since the industrial revolution and the discovery of oil on the face of the earth, the oil industry became the main supplier of energy in the world. The world economy is highly dependent on oil (Ferrier and Fursenko, 2016). Frank et al. (2016) argued that the "oil and gas industry is internationally recognized as one of the most economically important industries for society".

India is one of the world's fastest-growing economies. The 2018 World Economic Situation and Prospects Report,' India's outlook remains largely positive, based on strong private consumption and public investment and ongoing structural reforms. Growth in GDP is expected to rise from 6.7% in 2017 to 7.2% in 2018 and 7.4% in 2019.' The growth rate projections for 2018-19 and 2019-20 as per the Global Economic Prospects: January 2018 Report of the World Bank are marginally higher at 7.3% and 7.5% respectively.

While the petroleum industry has strong commercial advantages, there are also some issues. The oil and gas industry is notorious for damaging the environment, destroying ecosystems and adversely affecting the health of people living near production sites. (George et al., 2016). The petroleum industry has been criticized by researchers, Non-Governmental Organizations (NGOs) and environmentalists for its high environmental impacts, health and safety issues and environmental damages which is mainly attributed to the lack of effective sustainability management and processes to decrease the negative effects of it (Krupnick and Gordon, 2015). They believe that sustainability approaches and systems are essential for better-performed petroleum operations, less carbon dioxide emissions and more social, economic and environmental benefits. Advancement in engineering and technology have improved petroleum operational effectiveness concerning production and sales, but sustainable development has been neglected (Fuchs, 2007).

The priorities have increased for Energy Access, Energy Efficiency, Energy Sustainability, and Energy Security. For achieving this, several initiatives have been framed by the world's leading sustainability consultancy, ERM (Environmental Resource Management), and are listed below:

a) Sustainable Planning and Development Services: Developing and implementing sustainable business plans, initiatives and tools.
b) Transaction Services: Support successful mergers and acquisitions of companies.
c) Impact Assessment and Planning: Achieve project approvals by evaluating and managing environmental, social and health impacts, obtaining licenses and supporting stakeholder engagement.
d) Air Quality and Climate Change: Air quality, energy efficiency and carbon reduction issues are tackled in a constructive way to maximize shareholder value.
e) Contaminated site management: helping consumers handle their polluted sites better, reducing liability and generating quality.
f) Performance and assurance: helping businesses achieve their potential for performance.
g) Risk Management: Quantify and monitor the safety risks associated with unsafe facilities and procedures to protect people, property and the environment.

7. Contribution of Knowledge Management in Sustainable Development of Petrochemical Industry

The transformation of managerial views with a growing focus on knowledge has become the need to retain knowledge resources and monitor their effectiveness to know how they are used in the organization (Nejati, et al., 2010). At the present time, the petrochemical industry is seeking their competitive advantage in the effective and unique use and development of their knowledge so that it creates new areas of core competencies for them. Undertaking a sustainable approach will bring about numerous benefits, including brand value and reputation enhancement, increasing innovation, increased revenues and many more (Sigma Guidelines, 2003 and Nejati et al., 2010), while failure to take sustainable development responsibilities can result in a loss of competitive advantage and business opportunities and lower long-term performance (Robinson et al., 2006 and Nejati et al., 2010). Therefore, it is now widely accepted that knowledge assets and technological enhancements are an essential strategic resource for any organisation to achieve sustainability and competitive advantage.

The present state of the environment and the increased interest in sustainable development bring up the motivations that are shifting organizations toward a knowledge economy (Paquette and Wiseman, 2006). In this era of knowledge work, knowledge about the position of the environment is in abundance and the petrochemicals are learning to recognize the potential of their knowledge assets for generating value and how to use natural resources in methods that increase their value and quantity over time.

There are two different activities that organizations must continuously be involved in to capitalize on the benefits of transferring experience and knowledge. The first activity involves effectively translating ongoing experiences into distinct knowledge entities. The second operation includes the transition of these objects through time and space boundaries (Roth, 2003, Paquette and Wiseman, 2006). It is difficult to transfer information through time and space, but the knowledge transfer process can bring enormous benefits to an organization (O'Dell and Grayson, 1998, Paquette and Wiseman, 2006). One of the most important components of organizational training and success is the diffusion of information across an enterprise (Koch, 1999, Paquette and Wiseman, 2006).

STAP (Scientific and Technical Advisory Panel, Global Environment Facility) has long been a champion of KM in the GEF (Global Environment Facility). Under this KM parasol as applied science, STAP has already made KM's scientific case an important activity to be included in all GEF investments. STAP recommended from this study:

a. Knowledge exchange and training throughout the GEF Alliance should be improved.
b. Guided learning questions are an effective way to support knowledge management.

c. Knowledge management and knowledge management system functions should be included in project/program monitoring and evaluation activities.
d. The GEF should develop an Open Data Policy.
e. The GEF results-based management system should include measures of success in information management.
f. A GEF information management system across the enterprise should be implemented.
g. The new GEF platform offers the opportunity to build a corporate system across all organizations with apps that strengthen the usability of collecting, editing and filing data for knowledge generation purposes, and
h. Incentives to effectively disseminate task results, such as prizes and pay incentives should be considered.

Sustainable development and processes of formation of knowledge-based society and knowledge economy is a very complicated field where correct conceptual attitudes need to be used. The attitudes are characterized by orientations towards exceptionally broad and profound scientific knowledge and the suitability to apply them under conditions of great uncertainty. Using such theoretical attitudes, it must be possible to identify, describe and evaluate different "cause-effect" connections, identify existing subordination between different phenomena and processes, and foresee development trends and possible effects of different management actions (Melnikas, 2010).

8. Findings of the Study

Based on the literature review research, the study's key findings indicate that the petrochemical industry must emphasize the need to place sustainability at the heart of the performance evaluation process for knowledge management. Mapping sustainable development and knowledge management should build "cause-effect" ties where both variables play an important role for the growth of the petrochemical industry in a sustainable manner.

9. Conclusion

In the sense of knowledge management, this paper discussed the value of sustainable development for the petrochemical industry. The petroleum industry is among important industries for the world development but activities of the industry have been involved in the depletion of natural resources at a large extent. Managing knowledge and sustainable development would help to solve this problem. The study has revealed that these two approaches have cause and effect relationships when it comes to the economic growth of the economy. As the framework depicts, sustainable development has overlapping activities on the knowledge management effort. It is also practical to conclude that petrochemical industry competitive advantage entails knowledge management. From the studies above, it is apparent in the various sectors of industries, the prudent use of knowledge while factoring in the importance of societal demands and the conservation of the ecosystem will derive great returns to the stakeholders of the industry.

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Consumer Buying Behaviour and Online Shopping: A Perspective of Barak Valley, Assam, India

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Abstract

The recent trend shows that people are more interested in online shopping than traditional forms of shopping. The growing number of e-commerce websites, their attractive offers and variety of goods has fascinated the consumers to shift from traditional retail to online shopping. However, this shift is not a pleasing experience for all. Malpractices of the e-retailers and the security issues has affected many and held back many more from participating in this mode of shopping. Unaware of the serious security issues a large number of people are making online purchases and struck themselves by the shackles identity theft and monetary loss. This paper tries to evaluate the consumers' behavior towards online shopping i.e. why do they purchase online? The items they prefer to buy online, and their risk perception. For this purpose primary data have been collected and analyzed. Towards the end some suggestions have been put forward for enabling the online shoppers to make secure purchases.

Keywords

Consumer Behavior, E-commerce, Online Shopping, Risk, Secure Purchases.

1. Introduction

The development of new technological innovations, such as the Internet, has brought about changes in the market. The internet provides a global network for binding people and business together and offers a worldwide market arena. The internet is used as a means by a large number business houses to reach to more and more people anywhere any time. Online shopping is the mechanism with the help of which one can directly purchase products via internet connectivity in real time. The buying and selling can be done in electronic means without any delay with some finger tips. However, seldom it happens that a middle man may play his role (e.g., 'e-bay', OLX, etc.) to affect the buying and selling. A huge chunk of electronic commerce transactions is done completely in digital form, e.g., subscribing virtual premium items like online games, purchasing software, etc. But a substantial portion of e-commerce transactions necessitate the physical transfer of possession of goods. Now, 'e-retailers' and e-tail' are the terms which can be alternatively used for 'Online Retailer' and 'Online Retail', respectively. World Wide Web makes it possible for almost all the reputed giant firms to avail the online market-place as their selling outlet. Moreover, it also allows the small entrepreneurs to avail a platform having no barrier to reach both domestic and global customers and also to build goodwill in the market. The online selling outlets like E-bay, Amazon, etc. relieves the small entrepreneurs from marketing and payment service aspects and allow them to focus on their core functions, e.g. managing supplier relationships. Thus, it is boon for both the seller and the buyer as for sellers it provides global reach and for buyers it offers convenient one place to shop all items which they can access at their ease. However, online shopping is not always a joyful experience for all. So, this paper tries to analyze the buying behavior, risk perception and other related aspects of online shopping and also tried to identify the ways that can help consumers shop securely over the internet.

2. Literature Review

1. **L Jayakumar & Kumar, (2013)** focused on evaluating online shoppers' attitude in Chennai city of Tamil Nadu. The data obtained from 100 respondents through random sampling. A questionnaire survey method was used to measure the attitude of internet shopping. The study shows that online shoppers' attitude was positively and significantly related to age, gender and monthly income. However, it was negatively related to educational qualification, size of family and the nature of family. Hence, the results proved that consumers' behaviour significantly differs while shopping online.
2. **Reddy & Srinivas, (2015)** conducted a study on 598 respondents covering the range of age, groups of 20 - 30 years, 30 - 40 years and 40-50 years. The research concentrated on demographic factors on online buying behaviour of consumers. The data were collected through a questionnaire from 6 major Indian cities, namely New

Delhi, Hyderabad, Mumbai, Chennai, Bangalore and Kolkata. The results showed that females from age group of 20 - 30 years bought more frequently than males. This indicated that females shopped 3 - 4 times in a month as compared to males who shopped only once a month on the internet. The results further showed that age, marital status, income and education did not impact online shopping much in India. However, family size significantly affected online shopping behaviour of consumers.

3. **Nazir et al., (2012)** reported privacy and security as the major factors that influenced the online shopping behaviour of consumers. It was also found that the consumers hesitated while shopping online as they were having the fear of security threats when they pay for the products. The consumers hesitated and were worried about their personal information concerned with full name, delivery address and date of birth and financial information such as account details while buying online. Hence, trust and confidence were two significant factors affecting the consumer behaviour while shopping online.
4. **The Kim & Damhorst, 2010** studies is to check the effect on quality of service offered by the websites on attributes like perceived apparel quality, perceived service quality, consumer value perception of apparel shopping and future purchase intention. Data was gathered from 361 female students from colleges of two different regions in the United States using the convenience sampling technique. 97% of the respondents fell in the age range of 18 - 23 years. Structural equation modelling technique was used which revealed a positive relationship between the above mentioned attributes. The conclusion drawn from the study is that high quality apparels should also be offered by online retailers along with good customer service in order to achieve better satisfaction levels while shopping online and positive behavioural intent.
5. **Dahiya (2012)** understood the influence demographic factors have on online buying habits in five cities. By using the snowball and judgemental sampling technique, a sample size consisted of 598 respondents covering 331 males and 249 females were collected from different cities viz., Delhi, Mumbai, Chennai, Hyderabad and Bangalore. ANOVA was used to analyze the data. The results showed that age does not influence online shopping in India. Also, females buy more frequently than males and marital status and

income does not influence online shopping but family size significantly affects the online shopping behaviour of consumers.

6. **Kumar & Sobha, (2016)** analysed the relationship between various demographic variables and attitudes of online buyers. The data were gathered through a self-structured questionnaire. Two hundred and fifty respondents were approached for gathering data from Palakkad district in Kerala using the convenience sampling method. It was revealed that 61% of the consumers had a positive attitude and 39% showed a negative attitude while buying online. Respondents also reported that online shopping saved time; they could shop at any time of the day; online shopping was not risky; it gave accurate description of products and online shopping was equally secured as offline shopping. Results obtained found no significant relationship between the attitude of online shoppers with their gender, age, area of residence, educational qualification and monthly income.

3. Research Gap

The literatures reveal that researches were conducted to highlight the attitude of online shoppers, factors affecting online buyer behavior, etc. However, there is scope of research work in the area of finding out a most preferred product bought online. A need to compare the online buying behaviour of males and females was also felt since the investigators could not find any literature related to it. Moreover, the researchers could not find literature on the most preferred mode of payment in online shopping. Lastly, the literatures reviewed also unable to spell out the ways of modifying online buying behavior.

4. Objectives of the Study

The study is undertaken to achieve the following objectives:

1. To analyze buying behavior of internet shoppers.
2. To know why customers prefer internet shopping.
3. To analyze the risk perception of online shoppers.
4. To suggest some safety measures against online shopping threats.

5. Research Methodology

For the present study, data has been collected using a questionnaire which enabled us to get a clear picture of consumers' opinions in different matters. Many studies look at consumer trust towards a specific internet vendor and its website, but this study looks at consumer behaviour in e-commerce in general. The questionnaire was sent to as 300 people in the three districts of Barak Valley of Assam, i.e., Karimganj, Cachar and Hailakhandi, however, only 200 respondents of both male and female have responded and by using the Convenient sampling method, the data obtained from all of them were incorporated in the study. Moreover, respondents of all age groups were considered for the study. To arrive at a concluding analysis of the data has been done in a tabular form and percentages have been calculated taking certain parameters suitable for the study under 5 point Likert Scale.

6. Data Source

1. Primary Data: Primary data were collected through a questionnaire. The purpose of the questionnaire was to gather information about how consumer recognizes the importance of different factors in online shopping.
2. Secondary Data: Different secondary sources such as books, articles, published articles and the Internet has been used.

7. Limitations

The study suffers from the following limitations:

1. In this study only B2B e-commerce model is chosen.
2. Due to paucity of time and finance, we had to conduct the survey in a limited geographical area with a small sample size.

8. History of Online Shopping

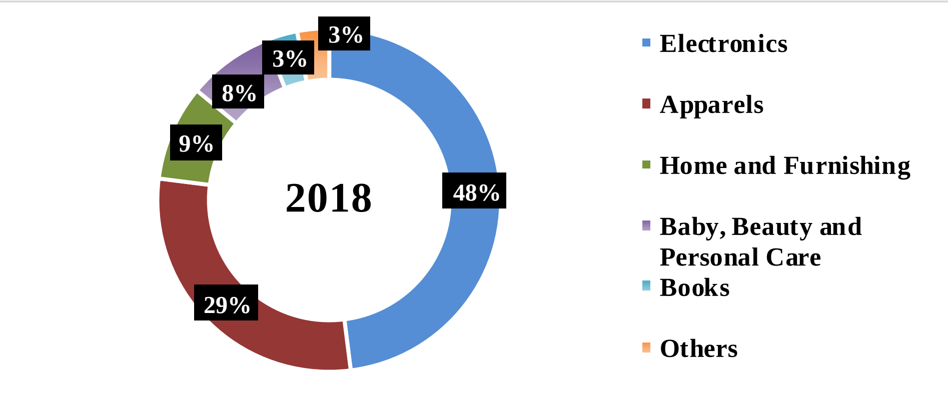
Basically, e-commerce and online shopping were regarded as a platform that facilitates commercial transaction by making the use of Electronic Data Interchange (EDI) and Electronic Funds Transfer (EFT). These were both introduced in the late 1970s, which facilitates transmission of documents like buying orders and invoices. Moreover, from 1980s the online shopping and e-commerce extended its scope to cover credit cards, ATMs, e-banking services also. Sabre in the USA and Travicom in the UK came up with airline reservation system to further extend the scope of e-commerce. Enterprise Resource Planning (ERP) systems, data mining and data warehousing were also evolved in the arena of online shopping and e-commerce during 1990s.

The World Wide Web and internet were invented as the largest means of global communication system by Tim Berners-Lee in 1990.Till 1995 NSF prohibited the presence of commercial enterprises on the internet.

However, through the World Wide Web many European and American and European business enterprises initiated their services online by the end of 2000. And since then a new era has begun where shopping has to do online and people begun to associate it with the term "e-commerce".

9. Online Shopping in India

With regard to fastest growing e-commerce sector, Indian market outshines all other markets. The trend shows that the Indian e-commerce sector, which is increasing at the world's highest growth rate of 51% will generate a sales turnover of US $ 120 billion from US $ 39 billion which was in 2017. Increasing internet and smart phone access are regarded as the fueling force behind that miracle. 'Internet access in India rose to 34.42% in 2017 from mere 4% in 2007, securing a CAGR of 24% during that tenure. Moreover, the trend shows that the number of internet users in India is expected to increase to 829 million by 2021 from 560.01 million as of September 2018. With respect rural India the internet access is expected to grow from the current rate of 18% to more than 45% percent by 2021. All this will give a tremendous push to the e-commerce industry in India. The compositions of products that are bought online in the year 2018 are shown in the graph below:



(***Source:*** www.ibef.org)

Figure 1: The Compositions of Products that are Bought

10.Meaning of Consumer Buying Behaviour & Online Buying Behaviour

Consumer buying behaviour is the blend of a number of behavioral factors like attitudes, preferences, beliefs and decisions regarding the consumer behavior at his or her buying role.

According to Engel, Blackwell, and Mansard, 'consumer behaviour is the actions and decision processes of people who purchase goods and services for personal consumption'.

Online buying behaviour covers a number of activities connected with searching, selecting and purchasing the wants satisfying products by the consumers while browsing websites of 'e-retailers'.

11. Factors Affecting Online Consumer Behaviour

The determinants/ factors affecting online consumer behaviour includes the following:

1. **The External Factors:** These factors include the factors like demographic, socio-economic, technology and public policy; culture; sub-culture; reference groups; and marketing which are uncontrollable in nature.
2. **Internal Factors**: Internal factors are the psychological components like covering attitudes, learning, perception, motivation, self-image.
3. **The Functional Motives**: These include the components like time, ease of shopping online, price, the environment of shopping place, selection of products etc, which are connected to consumer needs.
4. **The Non-Functional Motives**: These are connected to cultural or social values like the brand, ingredients, etc.

12. Interpretation and Analysis

12.1 Gender

Table 1: Table showing Gender of Respondents Shopping Online

Gender	No. of Respondents	%
Male	118	59.0
Female	82	41.0
Total	**200**	**100.0**

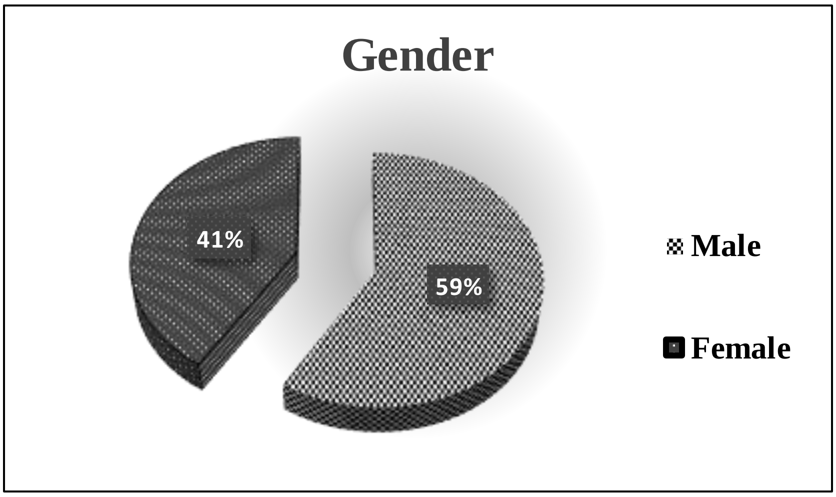


Figure 2: Gender of Respondents Shopping Online

Interpretation

The above chart shows that 59% of the respondents who shop online are male and 41% are female. This shows that males are more interested in doing online shopping.

12.2 Respondents' Attitude

Table 2: Table showing Respondent's Attitude towards Online Shopping

Attitude	No. of Respondents	%
Positive	124	62.0
Negative	41	20.5
No Opinion	35	17.5
Total	**200**	**100.0**

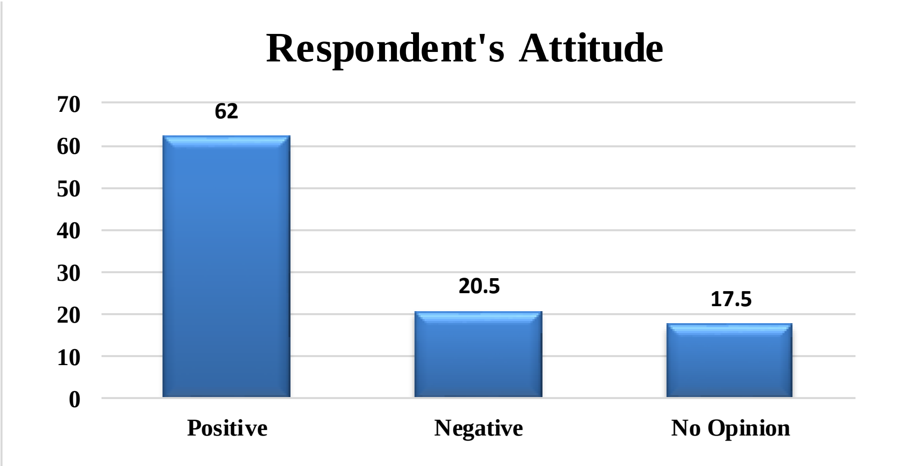


Figure 3: Respondent's Attitude towards Online Shopping

Interpretation

The above chart shows that 62% respondents attitude towards internet shopping is positive and 20.5% people's attitude is negative towards internet shopping and remaining 17.5% people have no opinion towards internet shopping. Thus, it indicates that most of respondents prefer online shopping.

12.3 Frequency of Online Shopping

Table 3: Table showing Frequency of Online Shopping

Frequency of Online Shopping	No. of Respondents	%
Frequently	50	25
Rarely	8	4
Regularly	30	15
According to the need	100	50
Occasionally	10	5
Never	2	1
Total	**200**	**100**

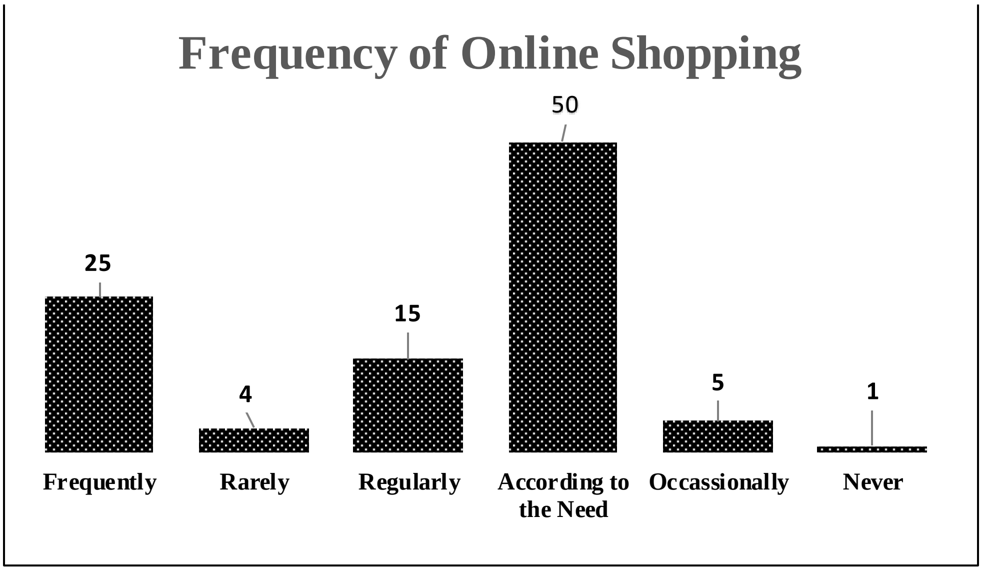


Figure 4: Frequency of Online Shopping

Interpretation

The above chart shows that 50% of the respondents shop according to the need while 1% of the respondents never shop online. This shows that the majority of the people will go for online shopping according to the need. 15% respondents regularly make online purchases while 25% make online purchases more frequently.

12.4 Payment mode

Table 4: Table showing Payment mode Generally Adopted Internet Shopping

Payment mode	Frequency	Percentage
Credit Card	22	11
Debit Card	34	17
Net Banking	16	8
Cash on Delivery	128	64
Total	**200**	**100**

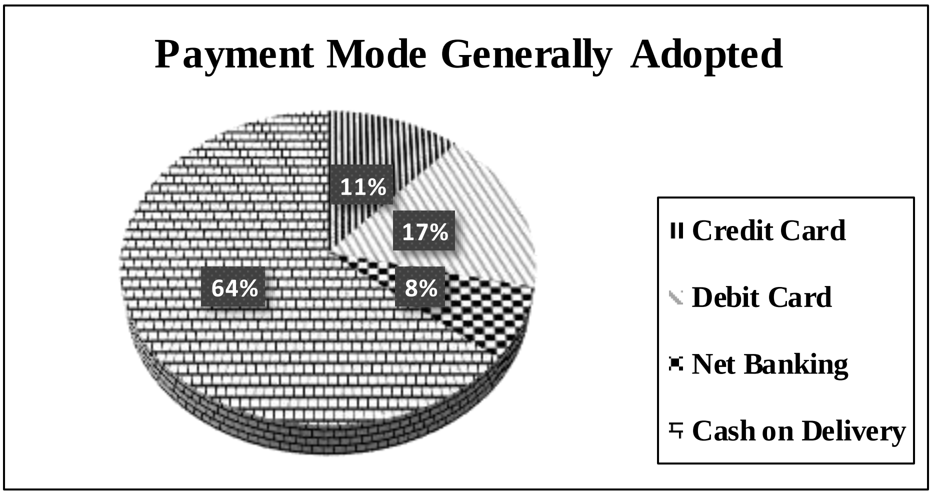


Figure 5: Payment mode Generally Adopted Internet Shopping

Interpretation

This chart shows that 64% of the respondent preferred Cash on delivery while 17% have used Debit card to make online payment. 11% have used Credit card only 8% have used Net banking. This indicates that most people hesitate to pay money before receiving the goods. Thus, it indicates fear of pre payment. Moreover, no respondent has selected E-wallets as their mode of payment.

12.5 Products Bought Over Internet

Table 5: Table showing Ranking of Product Bought Online

(In terms of Percentage)

Rank	Books	Railway/ Flight Tickets	Electronic Items	Shares and Bonds	Magazines & Journals	Attire	Gifts, cards, and Flowers	Banking Services	Other Services
1	11	30	**34**	2	1	10	0	5	3
2	12	**32**	19	6	8	4	4	11	3
3	13	12	11	5	9	**19**	10	17	1
4	5	10	16	6	9	9	13	**20**	5
5	7	4	9	8	14	15	**17**	15	3

6	9	6	6	8	9	12	12	6	9
7	9	3	2	10	13	9	16	8	9
8	11	1	2	11	**17**	13	14	4	13
9	**14**	0	2	8	14	9	12	11	17
10	9	2	0	**37**	8	1	2	5	**39**
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Interpretation

This table indicates what respondent prefer to buy online most. Where 34% of the respondent ranked Electronic items as their first preference in online shopping while the second preference was given to Railway/ Flight tickets with 32% opting for it. Attire (Cloths and other accessories) was ranked third with 19% of the respondents. 20% of the respondent ranked banking services as fourth preference. 37% of the respondent ranked Shares and Bonds as tenth in online purchase.

12.6 Why Online Shopping?

Table 6: Table showing Why Consumer Prefer Online Shopping (In terms of Percentage)

Particulars	Convenience	Easy to find Product	Easy to compare	Discounts and Offers	Non availability in stores
Strongly agree	41.5	35	40.0	20.0	45.0
Agree	30	39.5	35.0	25.0	20.0
Neither agree nor disagree	10	15	10.0	25.5	15.0
Disagree	9	5	8.0	21.0	15.0
Strongly disagree	9.5	5.5	7.0	8.5	5.0

Interpretation

This table shows the parameters which drive the respondents from making online purchases. 41.5% of the respondent 'agreed strongly' that there is convenience of online shopping, while only 9.5% among the respondents 'disagreed strongly' with the convenience. 39.5 % among the respondents 'agreed' that it is easy to find product in the online shopping In terms of ease of comparison 40% of the respondent strongly agreed and 7% strongly disagreed with this parameter. The parameter discounts and offers got a mixed review and 45% among the respondents 'strongly agreed' that non availability in stores drove them for making online purchases.

12.7 Reason for Less / Not Purchasing Online

Table 7: Table showing Various Reasons for Less / Not Purchasing Online (In terms of Percentage)

Particulars	I am worried about giving out my credit/ debit card number	Fear of mismatch between delivered products and description in a website	I do not like providing personal information	No possibility for "touch, feel or see" actual product to assess quality	I enjoy going out to do my shopping
Strongly agree	75.0	25.0	15.0	47.0	25.0
Agree	24.0	31.0	31.0	32.0	36.0
Neither agree nor disagree	1.0	12.0	17.0	10.0	19.0
Disagree	0.0	20.0	20.0	4.0	12.0
Strongly disagree	0.0	12.0	17.0	7.0	8.0
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Interpretation

This table represents why people make less or no online purchases. 75% of the respondents strongly agreed that they are worried about giving out their credit/debit card details. 31% agreed that they have a fear of mismatch between delivered products and descriptions in the website. 31% of the respondent agreed that they do not like to provide personal information on the e-commerce websites. Among the respondents, 47% strongly agreed that they make less/ no purchase because they cannot touch or see the product. Lastly, 36% agreed that they enjoy going out to do my shopping.

13.Findings

The major findings of the study are listed below:

1. 59% of the respondents who shop online are male and 41% of the respondents are female. This shows that male is more interested in doing online shopping.
2. 62% respondents' attitude towards internet shopping is positive. And 20.5% people's attitude is negative towards internet shopping with remaining 17.5% people having no opinion towards internet shopping. Thus, it indicates that most of the respondents prefer online shopping.
3. 50% of the respondents shop according to their need, while 25% make online purchases more frequently. It also shows that 1% of the respondents have never shopped online.
4. 64% of the respondents preferred cash on delivery. Thus, it indicates fear of prepayment and also that the respondents hesitate to share the credit/debit card details.
5. 34% of the respondents ranked Electronic items as their first preference in online shopping while the second preference was given to Railway/ Flight Tickets with 32% opting for it.
6. Attire (Cloths and other accessories) were ranked third by 19% of the respondents.
7. 37% of the respondents ranked Shares and Bonds as tenth in online purchase. This indicates lack of share market culture in the study area.
8. 41.5% of the respondents strongly agreed that there is convenience of online shopping, while only 9.5% of the respondent strongly disagreed with the convenience.
9. 45% of the respondents strongly agreed that the non-availability of items in stores is the prime reason for making online purchases.
10. 75% of the respondents strongly agreed that they are worried about sharing their credit/debit card details.
11. 47% of the respondents strongly agreed that they make less/ no purchase because they cannot touch or see the product before taking the delivery of the product.

14.Suggestions

With the advent of Online Shopping, shopping seems much easier, but surrounded by a number of threats. Use of phishing attacks and sites with malware are raising mountain high at an exorbitant rate and this has abstained many from using this form of shopping, although, these are not letting the people away from shopping. In this regard, one needs to have common sense and practical experience. Here are some suitable precautions or suggestions put forward to let the customers to do online shopping with safety.

1. **Look for the Lock:** People should abstain from those websites which doesn't have Secure Sockets Layer (SSL) encryption for doing digital transaction. It can be known if the site has SSL because the URL for the site will start with 'HTTPS://' instead of just 'HTTP://' with a locked padlock icon visible in the address bar.
2. **Don't Tell All:** While making digital transactions people should refrain from reveling all personal information. The more they know, the easier it is to steal your identity. When possible, refuse to give up the least amount of information.
3. **Check Statements:** After making an online transaction one should get his passbook updated regularly or check his electronic statement. If something wrong is noticed, it should be immediately informed to the banking authorities.
4. **Use Strong Passwords:** Using date of birth and name are some of the common methods of creating password but these are easily crack able. Passwords should be long and must be a blend of alphabet, numbers and special character.
5. **Avoid Public Networks:** Using public Wi-Fi or network for making digital transaction must be avoided as the transaction details and passwords can be stored by third parties. Transactions are more secure when done over private networks.

6. **Immunizing PC:** Using Antivirus is must for those who regularly use net baking and store monetary information on a computer or laptop. An updated antivirus protects against malware and other phishing attacks.

7. **Think Mobile:** Using mobile phones for shopping can solve much of the issue. The trick is to use the mobile apps available in the play store, powered by Amazon, Flipkart etc. Consumers can make use of these apps to shop online and can also get exciting offers.

8. **Use Familiar Websites:** If people know the site, they are less likely of being cheated. Users must be alert about misspelled words or sites using a domain as '.net' instead of '.com', etc. Yes, the offers communicated on these sites are very luring and attractive, but that's how they trick people into giving up their information.

15.Conclusion

These days online shopping is preferred by most and especially the youth. The growing inclination toward online shopping can be attributed to the rising preference for digital modes, better internet coverage and access to high speed low cost data. The e-commerce transactions are more vulnerable to the issues like anonymity, distance and lack of physical interactions. The negativities associated with online shopping like lack of trial before purchase, absence of salesmanship, lack of direct interaction with the seller make it compulsory for many security conscious people to prefer traditional shopping over online shopping. However, this fear is gradually reducing as the shoppers are now a day more informed and aware of the facts. We have found that security and privacy issues often act as barriers to shopping online. People hesitate to share credit/debit card details and personal informations out of the fear of it being misused. The paper also put forth some important suggestions or precautionary measures that will help the online shoppers in keeping their information safe and making online shopping a pleasant experience.

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A Study about Higher Education in India

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Abstract

Higher Education is very important to achieve sustainable growth and development of any country in general and India in particular. Dr. S. Radhakrishnan, gave the foundations of the Indian Higher Education in 1948 through University Education Commission and the e got momentum by way of The Central Advisory Board of Education Committee, the National Policy on Education and further boost in various Five Year Plans in the country. Its research capabilities boosted by annual R&D spends totaling over US$140 billion. In the last 20 years alone, 6 Indian intellectuals have been awarded the Nobel Prize across categories.

Indian Universities and Colleges are facing major challenges as they traverse the 21st Century and make decisions that will not only impact higher education but will also contribute to country's future competitiveness in the worldwide market place. Education should satisfy the employer, as they are the ultimate people to judge the efficacy of higher education obtained by the students.

The prevalence of a climate of goodwill and respect for institutions of higher education is now replaced with a general sense of hue and cry with distrust. Colleges and universities are challenged to serve a variety of students, from academically gifted to under-prepared for college-level study. Cost of education and debt burden after the study forces the students to think twice before opting for higher education. So it is very clear that the students are starting their course by pressure and ending with the pressure of job availability, that too on time. This aspect is to be given due consideration by the Government and others responsible for creating a climate of confidence in our Quality of Higher Education.

Keywords

Quality Education, Enrolment, Teaching, Technology, Job Market

1. Introduction

The growth and development of India lie in having an appreciable development in Higher Education. The foundation for higher education was laid by DR. S. RADHAKRISHNAN in 1948 with the help of University Education Commission. The importance got momentum by way of The Central Advisory Board of Education Committee, the National Policy on Education and further boost in various Five Year Plans in the country. Its research capabilities boosted by annual R&D spends totalling over US$140 billion. In India, 6 intellectuals got the Nobel Prize in varied categories in the past 20 years. But, nowadays, Higher education is under attack. Students from different sections in the society are being served by universities and colleges with multiple subjects.

Cost of education and debt burden after the study forces the students to think twice before opting for higher education. Parents, society, and the country places more expectations of higher education for economic well-being of the country. It is a well-known fact that the students are starting their course by pressure and ending with the pressure of job availability, that too on time.

2. Meaning

In simple term, Higher Education is presumed as an education beyond the school level. The education may be of three aspects namely General, Vocational, Professional or Technical Education. It offers people with an opportunity to imitate on the dire social, economic, cultural, spiritual and moral matters facing humanity. It contributes to national development through dissemination of specialized knowledge and skills.

3. Type of Institutions

All Institutions of higher education are broadly be classified into three categories, namely, University/ University Level Institutions, Colleges/ Institutions affiliated/ recognized by University and Stand-alone Institutions not affiliated/ recognized with University.

Table 1: No. of Universities and Colleges

Year	Universities	Colleges
2014	723	36634
2015	760	38498
2016	799	39071
2017	864	40026
2018	903	39050
Total	**4049**	**193279**

*(**Source:** All India Survey on Higher Education, 2017-18)*

In 2014, there were 723 Universities and 36634 Colleges. In 2018, it rose to 903 Universities and 39050 Colleges. So in total, 4049 Universities and 193279 Colleges in the country catering to the needs of students.

4. Mode of Higher Education

The various levels of programmes can be obtained by three different ways depending upon the capacity of an individual. The first one is **Regular mode,** i.e. formal system of higher education – a direct contact with the teachers and also makes use of other infrastructure facilities further facilitating learning. The next one is **Self-Financing Courses in Regular mode** through Government aided Universities/ Colleges/ Institutions without the financial support from the Government. The other one is the **Distance/ Correspondence mode**, simply known as non-formal system of Higher Education. This is normally through telecasting, broadcasting, internet, correspondence courses, contact programs, seminars or the combinations of any two or more such means of good communication. The enrolment of PG programmes under Regular mode rose from 1521127 in 2014 to 30377099 in 2018 as such 37128817 students enrolled. The enrolment in UG programs stood at 22184092 in 2014 to 24845665 in 2018, altogether with a total of 119728101. The enrolment under Distance mode stood at 3285834 in 2014 to 3449586 in 2018, totaling with 16904737 students.

The growth in student enrolment is clearly visible from the following table and shows that more and more students are eager to pursue education to live a decent life in the ever changing society.

Table 2: Growth in Enrolment of Student

Year	Enrolment
2014	32336234
2015	34211637
2016	34584781
2017	35705905
2018	36642378
Total	**173480935**

*(**Source:** All India Survey on Higher Education, 2017-18)*

5. Management of Higher Education

In India, the management of higher education is being carried by the Central Government, and State Governments. Apart from that, any institutions or colleges promoted by other local body or by an individual, Trust, Society or other private organization getting financial assistance from the Government or not, are being managed by Local Body for strengthening higher education in the country.

6. Student

Student means a student of the institution who has enrolled himself/ herself to pursuing any programmer conducted by the institution. Foreign students are also allowed to join subject to availability of seats designed by the government from time to time and to enroll within the stipulated time frame.

7. Gender-wise Enrolment

Like male students female students are also acquiring higher qualifications to lead a happy life in the society. The number of male students rose from 17495394 in 2014 to 19204675 in 2018. Similarly, female students from 14840840 in 2014 to 17437703 in 2018. This has been provided in the following table which is self-explanatory.

Table 3: Gender-wise Enrolment of Students

Year	Male	Female
2014	17495394	14840840
2015	18488619	15723018

2016	18594723	15990058
2017	18980595	16725310
2018	19204675	17437703
Total	**92764006**	**80716929**

(**Source:** *All India Survey on Higher Education, 2017-18)*

8. Gross Enrolment Ratio

The Gross Enrolment Ratio of male and female from 2014 to 2018 is in the increasing trend and this has been depicted in the following table for clear understanding of the same.

Table 4: Gross Enrolment Ratio

Year	Male	Female
2014	23.9	22.0
2015	25.3	23.2
2016	25.4	23.5
2017	26.0	24.5
2018	26.3	25.4

(**Source:** *All India Survey on Higher Education, 2017-18)*

9. Teacher

The teacher is defined as a faculty or staff assigned the professional activities of providing knowledge, giving instructions and guidance in the subject area of studies. Normally, this will be in self-contained classes or courses or in classroom situations based on the fixed time and place of learning.

10.Pupil Teacher Ratio

In the year 2018, the Pupil Teacher Ratio is as per the standard requirements of 30 in the country and is shown with the help of the following table. The table gives an idea over a period how it has increased from 2014 to 2018 in respect of the universities and colleges and also university and its constituent units.

Table 5: Pupil Teacher Ratio

Year	University and Colleges	University and its Constituent units
2014	21	16
2015	22	15
2016	21	16
2017	25	19
2018	30	20

*(**Source:** All India Survey on Higher Education, 2017-18)*

11.Recent Trends in Higher Education

Union finance minister Mr. Arun Jaitley announced various doles for students and education sector in India in his Budget 2018 speech. Budgetary expenditure on health, education and social protection in 2017-18 was Rs.1.22 lakh crore but the same has been increased to Rs.1.38 lakh crore in 2018-19.

12.A New Financial Model for Higher Education Sector

The government has planned to invest Rs.1,00,000 crore in another four years in improving the research and development in various reputed educational Institutions in the country. A comprehensive plan has been developed in the name of "New India 2022" to increase the infrastructure in the research field to develop higher education.

13.Training to Teachers

The greatest resource in the classroom in a teacher. All Institutions should think of increasing the knowledge of a teacher, by way of providing him/ her a good training which is quite often regarded as an area of a neglected one.

14.Change of Curriculum and Entrepreneurial Spirit

Nowadays, the topic of entrepreneurship has gained momentum among the public. The reason being the development of the economy in the country, are supported by business start-ups. It creates more job for the people. Universities and colleges are considered to be an important place in developing the entrepreneurial spirit among the students.

15.Boosting Technology in Education Sector

In the present scenario, use of chalk, blackboard, ink pens and textbooks are not considered to be an important one. The technology has occupied most of the areas of the educational. In fact, teaching and learning have gone beyond the norms of reading from a book and understanding. With the swift development of technology, students are able to understand concepts in a more meaningful manner.

16.Government Efforts

All India Survey on Higher Education was initiated in 2011. The XII Plan highlighted the need for a strong and comprehensive data for evidence-based policy making and effective planning. A new plan scheme, Higher Education Statistics and Public Information System have been approved in XII Five Year Plan. To collect the data a steering committee for Higher Education Statistics and Public Information System was constituted under the chairmanship of Secretary, Higher Education, Ministry of Human Resources Department and different stakeholders as members of the said committee.

17. Why Quality in Higher Education?

The following years will be considered in the nature of skill development, innovation-based technologies, talent analytics, automation, and advanced IT. The world is changing quite often and technological innovations have become faster and cheaper thereby making traditional jobs and skills buried under the ground. There are at least six distinct skills required for the present day work force compared to two skills which were sufficient in 1980s and earlier. The global job market will be dominated by coding, soft skills, emotional intelligence and cross cultural competency, healthcare and allied skills, including expertise in telemedicine and robotic surgery, expertise in social media platforms and computational and analytical thinking. Based on the mind boggling future scenario, it is imperative that the present day education must be tuned to this state. All those connected with the growth of quality education in India must realize this in good spirit and work towards developing quality education.

By 2022, job scenario will change in a more drastic manner. This has been emphasized by various reports ranging from EY, NASSCOM and FICCI. Changes in the worldwide in all fields, and more importantly in advanced technologies. In the coming years, Nine percent work force would be in new jobs which do not exist today and Thirty Seven percent would be in jobs which will radically change the skill sets in a more different way. Twenty-one percent of workforce will face existential threat and around Twenty- Twenty Five percent jobs will be in organized sector will reach Ten percent from the current Eight percent level. Thus, organized workforce will be around 46-48 million by 2022.

18.Nature of the Study

The topic **"A Study about Higher Education in India"** is a research paper undertaken by selected colleges in Chennai region. A new insight is being conceived and brought into limelight about the present status and ways to make it more meaningful and beneficial to all.

19.Objectives of the Study

1. To study the current status of higher education in India.
2. To analyse the trends in higher education in India.

20.Research Methodology

The present study is based on Primary and Secondary data. The primary data is in the nature of questionnaire wherein students of both girls and boys were considered for the study. The details are collected and systematically arranged. The secondary data consists of published reports from journals, newspapers and magazines.

21.Limitations

1. The period of study is limited to six months duration starting from October, 2017 to March, 2018.
2. Colleges in Chennai alone are considered for the study.
3. Students pursuing higher education both girls and boys were contacted for the study purpose.

22.Analysis of Data

By using a simple statistical tool, the primary data were analyzed to elicit the information. The outcome will be much helpful in knowing the present status and what actions are in dire need for giving boost to quality higher education in India.

Table 6: Management of Higher Education

	Management of Higher Education should be in the Hands of	**Response**	**%**
a.	Academicians	107	86
b.	Political interference	18	14
		125	

*(**Source:** Primary Data – Questionnaire)*

The above Table 6: Management of Higher Education - of all the students, 86 percent stressed that it should be in the hands of Academicians and 14 percent said reluctantly, that it should be in the hands of political parties. But in reality there is no need for political people to fall in line in providing higher education.

Table 7: Accessibility of Higher Education

	In India Accessibility of Education is Very Much Available to all.	**Response**	**%**
a.	True	31	25
b.	False	94	75
		125	

*(**Source:** Primary Data – Questionnaire)*

In Table 7: Accessibility of Higher Education Seventy-Five percent of the people said it is not easy and Twenty-Five percent opined it is somewhat true**.** By going so deeper into the meaning of accessibility only rich people are finding it to get their desired course due to the availability of money. Whereas, people in villages and rural side are finding it difficulty owing to distance, money, transport, poverty and ignorance in the family.

Table 8: Need for Quality of Research

	What constitutes important in improving the Quality of Research in Higher Education?	**Response**	**%**
a.	Increase in laboratories	28	22
b.	Upgrading of laboratories	22	18
c.	Motivate researchers	30	24
d.	Provision of more funds	45	36

*(**Source:** Primary Data – Questionnaire)*

Table 8: Need for Quality of Research, the importance of funds was fallen by 36 percent, followed by motivation to researchers with 24 percent and 22 percent expressed that more laboratories are the need of the hour and a mere 18 percent said that upgrading of present laboratories are to be given importance. It is clear that more and more research institutions equipped with latest developments will help in improving the quality of research in higher education. This will help in positioning our country in education at higher level, internationally.

Table 9: Graduates Employability

	Our graduates are more employable in nature	**Response**	**%**
a.	True	61	49
b.	False	64	51
		125	

*(**Source:** Primary Data – Questionnaire)*

The above Table 9: Graduates Employability, Forty-Nine percent expressed that our Indian graduates are more employable in nature in all sectors, and fifty-one percent said that they are not fit for employment conditions in the country, by any sector. Every year nearly 15 million graduates complete their course, and it has been found that seventy-five percent are not having the basic required soft skill and technical knowledge to perform the given task in an appreciable manner. So only twenty-five percent are eligible in the job seeking area as per the McKinsey report. There is a possibility that the above twenty-five percent may go in the future to twenty percent also. In another survey, "Aspiring Minds", of the 15 million graduates, ninety-five percent of engineers can't code. This is a sorry state of engineering students in the country.

Table 10: Coordination of Higher Education

	There is no coordination between Centre and the States in Promoting Education	**Response**	**%**
a.	True	120	96
b.	False	5	4
		125	

*(**Source:** Primary Data – Questionnaire)*

In Table 10: Coordination of Higher Education - The centre takes all possible steps to streamline the higher education and make it more meaningful and purposeful but most of the State Governments are voicing against the canter's action and putting a halt abruptly. As our political leaders are narrow minded and self-interest in nature, any reform brought forward will yield result slowly, and at times it may remain only on paper. The majority of the students accepted by ninety-six percent, that there exists no coordination between the Centre and the States, and only a meagre four percent expressed a different opinion.

23.Findings

Accessibility to higher education has been hampered by the availability of finance coupled with a higher cost of educational loan, distance, transport, dire poverty, and ignorance. More Funds should be made available which will support the growth of quality in higher education. In practice, most of them are not ready to cough enough funds and trying to run with the available quality. Most of the higher educational institutions are run by politicians and tainted leaders any change in policy matters to enhance the quality by the Government, vehemently opposed by the politicians and rulers of various States. Their narrow mind makes it cumbersome in the implementation of policy decisions, thereby, the standard is in eroding nature.

24.Suggestions

1. The management of Indian Higher Education should be in the hands of academicians and experts in the field of education.
2. As education is the backbone for the economic development of a country, steps should be taken to provide more and more funds at regular intervals to strengthen higher education.
3. Accessibility should be made easy by opening more institutions in the rural areas by giving wide publicity to all.
4. The government should make international collaboration compulsory which will give a room of improving the quality. For this purpose, free guidance, provision of funds and other moral supports should be carried on vigorously.

5. To make our students highly competitive in the employment scenario, changing of the curriculum at a regular interval should be taken into account.
6. Value Education should be added as a compulsory one in all curriculum for developing good attitudes on the part of students for a safe and happy living in society.

25.Conclusion

The rapid changes are challenging in nature, the system should be matched with the industry requirements and learner aspirations. The challenges can be clustered under the category of – **Equity, Excellence and Expansionary.** Moreover, as the job market and industry of ever-changing nature, equipping people with the required skills are considered the utmost important and that can be fulfilled only by good educational system. It is also nice to follow the footsteps of developed countries in imparting education, which will help a lot in acquiring, developing and maintaining quality in **Indian Higher Education.**

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Intangible Dimension of Service Quality and its Relationship with Customer Satisfaction: Ola Cabs in Delhi NCR

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Abstract

OLA cabs have been operating in Delhi NCR region for a long time (more than 4 years). The company has been valued to be of $4 billion worth in 2018. The company began its operations in Mumbai and gradually expanded into many cities (mostly metro). OLA cab services are widely used by people of all age groups and occupations including students, working professionals, business persons, etc. OLA launched shared cabs recently which enabled the budget commuters to use the services for lower prices. What differentiates OLA services from other 'call cab' services is the integration of its cab operations with a map based app using which the commuters can book the cab, track the cab, pay the bill, rate the services, etc. With the advent of UBER, OLA is facing stiff competition in the market, however, it is trying to maintain and grow its market share through various means. The purpose of the current paper is to take the insights from the consumers regarding the intangible dimension of services offered by OLA cabs and to examine the impact of this on consumer's satisfaction in case of OLA cabs in Delhi NCR.

Keywords

Service quality, Consumers, OLA, Satisfaction, Cab Aggregator, Rating, Transportation.

1. Introduction

The service sector is the biggest contributor to the GDP of the Indian Economy currently. Post liberalization, services such as banking, healthcare, education, software, media and communication, transportation, etc. have expanded and occupy a large space in the Indian market. These services have not only generated huge employment across the population, but also have satisfied the demands of millions of customers. Most importantly, these services have addressed and bridges the 'need gap' in society. With growing demand for services in the economy, a lot of players have entered the sector. Whether it is banking, education, healthcare, communications or any other industry, there are multiple players ready to lure the customers ways more than one. In short, service sector might be profitable, but it is certainly competitive.

Toward off the competition, the service companies use many ways to differentiate themselves from the rivals. Service quality is one such weapon. Satisfaction among the customers is an important factor for long term existence of the service organizations which is strongly related to the quality of that service **(Bolton and Drew, 1991)**. Organizations believe that by providing excellent services to the customers they would be able to insulate themselves from the stiff competition. The customers, impressed with their service quality will turn to them repeatedly and this will help them in generating profits sustainable **(Ugboma, Oqwude and Nadi, 2007)**.

On the customer's side, a perception of getting a good quality service from the organization is helpful in developing a willingness in maintaining a relationship with the service provider. Thus, the flow of value is continued. **(Carrilat, Jaramillo and Mulki, 2007)**. The success factor in services such as OLA is all the more complex because the customer's expect better quality at a lower price which makes the job of the service providers all the more difficult as they have to compete simultaneously at two fronts – quality and price. Moreover, it is tough to understand how customers are likely to evaluate their services, since the contact between the service provider and the customer is relatively short lived, which makes the study of consumer's behaviour relatively difficult. The purpose of this research is to examine the relationship between the various dimensions of service quality (tangibles and intangibles) and customer's satisfaction for OLA cabs in Delhi NCR.

2. Literature Review

Now – a – days, organizations, in order to survive the stifling competition in the market, are focusing on the satisfaction of the consumer through enhanced service quality. In India, due to the rapid growth of commuters, companies like OLA have found footing. However, this is not a monopoly market like Indian Railways. Other companies such as UBER, MERU also exist that are ready to capture the market and eat away the market share of one another. In such a scenario, high quality service together with a lower price is the only solution to give customers more value for their money. An Increase in the 'perceived value' will increase the willingness in the customer to become a repeated buyer of OLA.

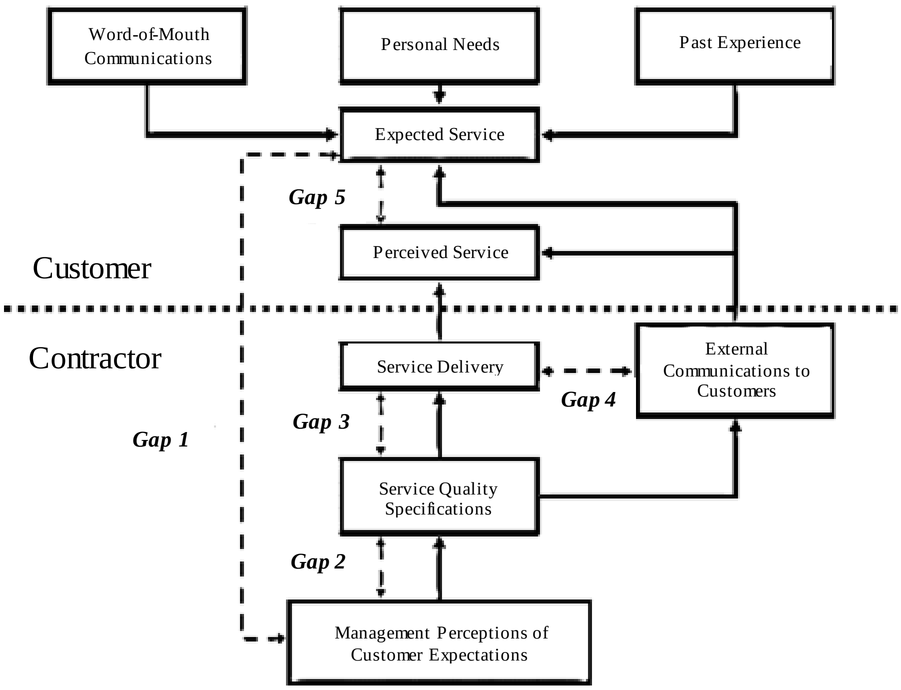
Based on the study of **Zeithmal et al. (1990)**, most of the literature on service quality is based on the idea of 'perceived quality' which is the resultant of the 'service expectations' of the consumers and their perceptions of 'actual service performance'. **Parasuraman et al. (1990)** stated that the reliability in the service quality is basically related to the outcome of the service. **Carrilat et al. (2007), Zeithaml et al. (2008)** assert that service quality is a precedent to customer satisfaction. Thus, companies must care more and invest considerable amount in programs that lead to the increase in the satisfaction of their consumers **(Sattari et al. 2010)**.

Parasuraman, Zeithaml and Berry (1994) find that one basic determinant of customer satisfaction is service quality. Thus, these findings say that there is a significant relationship between service quality and customer satisfaction.

SERVQUAL model (Service Quality model) is used to measure the service expectations and service gaps. Service gaps lead to customer dissatisfaction therefore must be minimized at all cost. The model was devised by Parasuraman, Zeithaml and Berry. It is also called the GAP model because it is used for conducting an analysis of service gaps. The gaps are as follows:

- GAP 1: Expectation – perception gap. This is occurs when the management fails to understand the expectations of the consumer.
- GAP 2: Service design gap. This occurs when the management fails to design proper service quality specifications after understanding the expectations of the consumers.
- GAP 3: Service delivery gap. This occurs when the service is not delivered properly. Lack of trained manpower may lead to this gap.
- GAP 4: External communication gap. This occurs due to difference between what is communicated to the consumers through advertisements and what is ultimately delivered to them.
- GAP 5: Overall gap in service quality. This is the cumulative gap which arises on account of gaps 1, 2, 3 and 4. This will lead to an overall dissatisfaction in the mind of the consumer.

ServQual



(***Source:*** Zeithaml, Parasuraman & Berry, Delivering Quality Service)

Figure 1: Zeithaml, Parasuraman & Berry, Delivering Quality Service

Here it must be remembered that word of mouth and past experiences also have a role to play in the construction of the service expectation. A strongly positive word of mouth will lead to a higher service expectation in terms of quality.

3. Dimensions of Service Quality

Parasuraman, Zeithaml and Berry, (1985) originally determined ten dimensions of service quality, based upon a series of focus group studies. Lately in 1988, they reduced these ten dimensions to five dimensions – tangibles, assurance, reliability, responsiveness and empathy. The first dimension 'tangibles' deals with the 'product' aspect of the service (items that can be felt and touched) e.g. furniture in a classroom. The remaining four dimensions deal with the 'intangible' aspects of the service (that cannot be touched but only be felt).

- *Tangibles*: 'product' aspect of the service. It refers to the appearance of the physical factors – equipments, facilities, appearance etc. Tangibles relate to the physical cues that are a component part of the service delivery process (Zeithaml et al. 2000; O'Neil and Palmer, 2003)
- *Intangibles*: that cannot be touched, only be felt (assurance, reliability, responsiveness and empathy). These are the 'characteristic' part of the service delivery process.

The current paper takes into account intangible dimension of the service as described above.

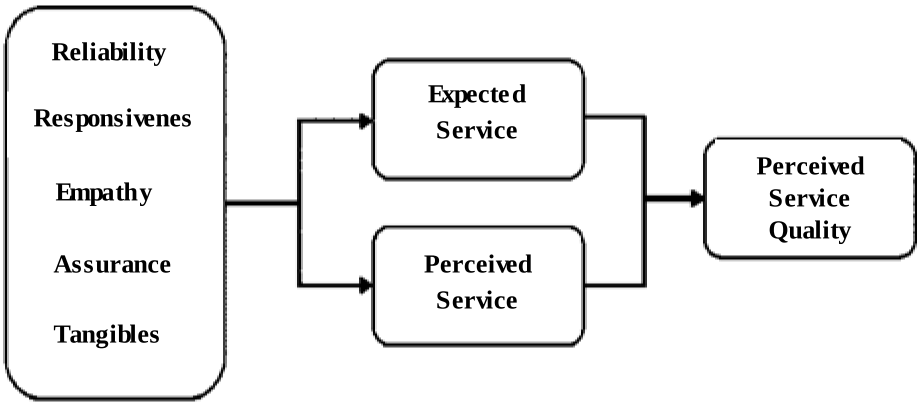


Figure 2: Tangible dimensions

4. Hypothesis Formulation

Based on the above discussion, the following hypothesis are being formed:

H_1 - there is a significant relationship between the intangibles and customer satisfaction in case of OLA cabs in Delhi NCR.

5. Research Methodology

5.1 Research Design: Questionnaire of **closed ended questions** was used to gather data for this research. The data collected was quantified. The questionnaire was forwarded to a sample of selected consumers using the OLA cab services in Delhi NCR.

5.2 Data Collection Methods: Out of all the data collection methods, it is generally seen that a questionnaire is the most popular and convenient tool used for gathering data from respondents. The data for the present research has been collected using a questionnaire having two parts:

a) Respondents' profile (section 1)

b) Intangible factors and service quality (section 2 having 7 questions)

6. Result and Discussion

The total questionnaires that were randomly distributed to respondents via emails were 150 and 113 were fully answered.

	Total	**%**
Questionnaires distributed	150	100
Questionnaires collected	113	75.33

The survey was carried out for two weeks in December 2018.

RESPONDENTS' PROFILE

Gender: Male – 76 & Female – 37

Age Group:

Age Group	**No. of Respondents**	**% of Respondents**
20 – 25	91	80.5
25 – 30	12	10.61
30 – 35	06	5.3
35 – 40	01	0.8
40 – 45	03	2.6

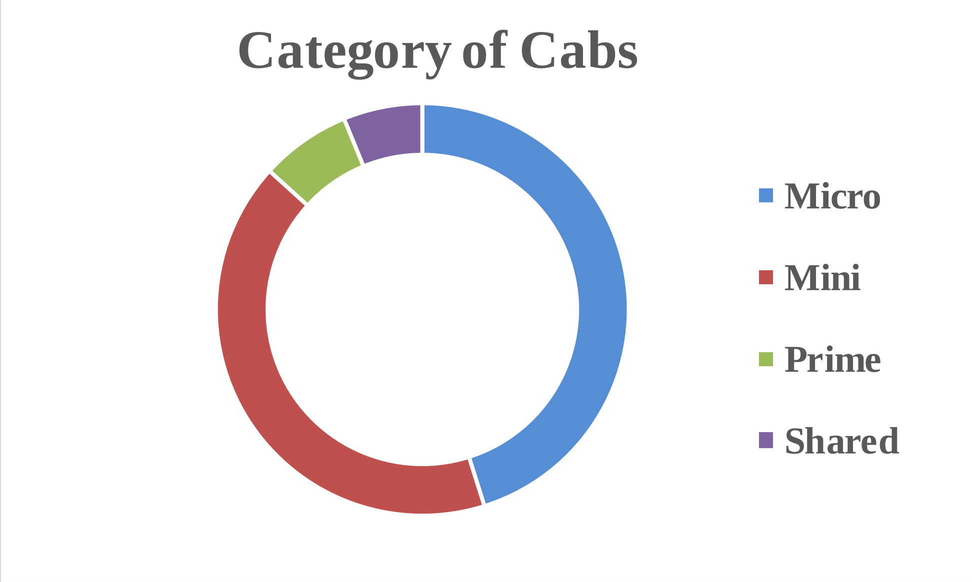


Figure 3: Category of OLA Cab used

Category of Cabs	No. of users
Micro	51
Mini	47
Prime	8
Shared	7

7. Main Findings

The descriptive results were calculated, the findings are stated in the table below:

Descriptive Results for 'Intangible Factors' (N =113)

S. No.	Questions	Mean	S.D.
1	OLA App works well & flawless all the time	3.6460	0.8337
2	The driver quickly (in the first 5 rings) responds to the call	3.7080	0.8832
3	The vehicle reaches at the Pickup location timely	3.5133	0.8250
4	Driver is courteous and polite	3.7257	0.8045

5	There are no disputes / discrepancies related to tariff while billing	3.5664	0.8852
6	Driver understands the specific needs of the customer (playing music, driving fast etc.)	3.5841	0.9795
7	The ride is mostly safe and secure	4.0088	0.8183
	Overall Mean Intangibility	**3.6789**	**0.8732**

Descriptive Results for 'Overall Satisfaction Score' (N = 113)

S. No.	Questions	Mean	S.D.
1	Overall satisfaction score for OLA cab services (on a scale of 5)	3.2389	0.5049

8. Overall Descriptive Statistics

S. No.	Item	N	Minimum value	Maximum value	Mean	Std. Dev.
1	Intangibility	113	1	5	3.6789	0.8732
2	Satisfaction score	113	3	5	3.2389	0.5049

Pearson Correlation Coefficient Interpretation

Interpreting the R-value for Interco relation

R-value Relationship

Above 0 70	Very strong relationship
0.50 – 0.69	Strong relationship
0.30 – 0.49	Moderate relationship
0.10 – 0.29	Low relationship
0.01 – 0.09	Very low relationship

R-values

S. No.	Factor type	R Value (Correl.)	Meaning
1	Intangible factors	0.1343	Weak relationship

Findings from the correlation analysis show that the 'intangible' factors are weakly related to the customer satisfaction in the case of OLA cabs in Delhi NCR.

Thus, hypothesis H_2 is rejected

9. Conclusion and Limitations

OLA cab operators must take good care of the 'intangible' aspects of the service. It is clearly evident from the findings that services provided by OLA cabs in Delhi NCR need to improve, specifically in the area of 'Intangible factors' (Responsiveness, Assurance, Empathy etc.) it should serve even better.

The size of the sample for this research is not enough to determine the level of satisfaction toward the OLA cab services provided. The sample has been chosen randomly and the respondents did not completely cooperating with the research to answer the questionnaire, therefore, research has opened door for further study.

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Factors Influencing Education- A Study with Reference To Students in Chennai City during the Period from 1st April 2017 to 31st March 2018

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Abstract

Education is nothing but studying different kinds of subjects to gain knowledge and understanding and trying to apply it in daily life. Education is not only the book knowledge of reading, remembering and writing at the time of examination and answering when questions are asked in the class room. In fact, it refers to the gathering of knowledge to live a happy and contended life. Some views education as a process of facilitating learning, or the acquisition of knowledge, skills, values, beliefs, and habits. The importance of education lines not only the development of intellectual skills and knowledge but also to effective growth and development one's life in particular and the country in general. The Education system prevailing in the country must make students as learners' innovators, scholars, researchers and trainers for future generations.

Education gives us a knowledge of the world around us and changes it into something better. It develops in us a perspective of looking at life. It helps us build opinions and have points of view on things in life. According to Stacey Kazakis Weigler of New Hampshire, "The purpose of education is to develop students' desire and ability to think and learn about the world around them. Further, the purpose is to learn how to develop relationships that will enable students to work with their peers, throughout their schooling and beyond.". This paper deals with the student's views about the education and what makes them to concentrate well in education and also helps them to lead a better life in future.

Keywords

Factors, Influencing, Performance, Preparations, Attitude, Hobby

1. Meaning

Education is nothing but studying different kinds of subjects to gain knowledge and understanding and trying to apply it in daily life. It refers to the gathering of knowledge to live a happy and contended life. Some view education as a process of facilitating learning, or the acquisition of knowledge, skills, values, beliefs, and habits. The methodology of teaching is called pedagogy. Further education is not just to read and write. It is about using it for furthering the knowledge for growth and also to lead an independent life.

2. Literacy and Education

Literacy is the ability to read, view, write, design, speak and listen in a way that allows one to communicate effectively. It shows one's capacity to apply these skills to effectively connect, interpret and differentiate the niceties of the world in day today's life. Education is knowing about the facts of life. Education is not to mug up, but just to understand how to create the world around us and how to sustain it for future generations and how to develop relations for existence in a smooth manner. The role of education is meant for developing something new rather than relying on old innovations. Education is the only way to win the world. It is not about learning life, but education itself is life. It is the key to finding great characters hidden in every individual.

3. Quotes on Education

1. Education is the most powerful weapon which you can use to change the world. **Nelson Mandela**
2. Education is the passport to the future, for tomorrow belongs to those who prepare for it today. **Malcolm X**
3. An investment in knowledge pays the best interest. **Benjamin Franklin**
4. Education is not preparation for life; education is life itself. **John Dewey**
5. The roots of education are bitter, but the fruit is sweet. **Aristotle**
6. Change is the end result of all true learning. **Leo Buscaglia**
7. Education is the movement from darkness to light. **Allan Bloom**

8. Education is what remains after one has forgotten what one has learned in school. **Albert Einstein**
9. The aim of education is the knowledge, not of facts, but of values. **William S. Burroughs**

4. Role of Parents

Education doesn't only mean studies. Education encompasses manners, etiquette, manner of speaking, kindness, love, dealing with problems of all kinds, the ability to think. The role of parents in education is to **motivate** their children in the field of the subject they are interested in so that the child never feels unmotivated or disheartened. The environment a child inhabits and learns from, that is provided by the parents. What the child finally becomes as an adult, is entirely dependent on that environment; and it's the parents who're responsible for providing that environment.

4.1.Showing Support for a Child's Education

According to a research study by **Ronald Ferguson**, "Nearly half of a child's achievement in school can be accounted for by factors outside the school, including parent support". Parents should ensure that the attendance is regular, maintaining a positive attitude towards school matters in general and the study related matters, a sizable part of salary should be earmarked to study-related expenditure, thereby increasing the knowledge of the student, and be a positive role model for the child in helping to shape the child's opinions and attitudes about learning. Another research reveals that, high self-esteem and student achievement are closely interrelated to positive parental involvement in school. It will indirectly motivate the ward to concentrate on studies in order to bring name and fame to the parent's efforts and the place of learning.

4.2 Making a Home a Good Place for Learning

A model library is created and books pertaining to various fields are to be arranged which will be visible to the ward. It must be easily accessible in nature. It should also be ensured that at least some time be given to read the books, or at the most must see the book, and should have a glance to have a first-hand information about the nature of the books. Regular reading of books in the home should be cultivated and parents shall be an example for that purpose. Parents can also encourage children to read by themselves.

5. The Teacher's Role

Teachers, by keeping the growth of students in education, must give importance to certain aspects. They must be friendly, and cooperative with the students in all respects. A regular time frame should be made known to all so that they will be free in discussing the steps needed in learning well and helping them to reach the pinnacle of success in education in a gradual manner. Teachers should share common interests with the students. Place the student at the center of all communications, making sure that parents understand they are the priority. A friendly and supportive nature of teachers are always remembered and cherished by the students forever.

6. Role of Parents and Teachers

Parents and teachers can both share valuable insights into a child's personality. Teachers can pass on information about how the child manages with a classroom environment and skills which they have exposed through various activities. Right questions with reasonable time to express their views would always go a long way in having a good behavior of the ward. Whenever an opportunity arises, both should encourage with words and actions regarding about a good job done without wasting time and effort. Finally, one of the most important ways to develop and maintain a good parent-teacher relationship is simply by showing appreciation for each other. If a child sees a parent and teacher thanking each other, the co-operative aspect is strengthened.

Qualities Common to Parents and Teachers

Brisk	Compassion	Courageous	Communicative
Confident	Flexible	Guiding	Knowledgeable
Mature	Passion for teaching	Pleasing personality	Well organized

This paper deals with the students' perceptions about the meaning of education and how they are expecting that the same should be delivered to them for a proper understanding of the subjects. How they viewed their parent's role in shaping their educational attitudes, both at home and in school. Whether teacher's role in educating only or anything beyond that is also aired by students.

7. Objectives of the Study

1. To understand the role of parents' education in developing the learning abilities of students.
2. To evaluate the teachers' attitude and its effects on the growth of students' knowledge in education.
3. To analyze the role of the living atmosphere in promoting education in the minds of students.

8. Research Methodology

The present study is based on primary and secondary data. The primary data is a questionnaire circulated among the parents, teachers, and students. The secondary data were taken from the Annual Reports on education published by the Central Government, State Government, Newspapers and Magazines.

9. Limitations

1. Students studying 12th standard, both boys and girls, and their parents were considered for the present study.
2. The period of study is from 1st April 2017 to 31st March 2018.
3. The place of study is restricted to Chennai City only.
4. Both State Board and CBSE students are taken into account.

10. Analysis of Data

With the help of a simple statistical tool, the primary data were analyzed. The primary data were collected separately from the parents, teachers and the students. First, we will see the outcome of data collected from the **Parents**.

Table 1: Education

	Education	Response	%
a.	Degree	140	40
b.	Post graduate	97	28
c.	Professional degree	85	24
d.	Ph. D	28	8
	Total	**350**	**100**

*(**Source:** Primary Data – Questionnaire)*

The above **Table 1: Education,** which relates to Education of parents, degree constitutes 40 percent, followed by postgraduate and professional degree with 28 and 24 percent respectively. A mere 8 percent shows about Ph. D possessed by the parents. We can easily infer from the above table that all the parents gave importance to education and only some people reached the pinnacle of higher education.

Table 2: Job

	Job	Response	%
a.	Government	137	39
b.	Public Sector Undertaking	58	17
c.	Private	105	30
d.	Own business	50	14
	Total	**350**	**100**

*(**Source:** Primary Data – Questionnaire)*

In **Table 2: Job**, parents working with the government constitute with 39 percent followed by private with 30 percent. Parents doing own business category constitute with 14 percent and 30 percent related to people working with private organization. The outcome of the table 2 reveals that parents are having peaceful life as the income is assured at the end of every month and free from financial worries.

Table 3: Position

	Position	Response	%
a.	Proprietor	50	14
b.	Chief officer	59	17
c.	Officer grade	74	21
d.	Less than officer grade	167	48
	Total	**350**	**100**

*(**Source:** Primary Data – Questionnaire)*

The **Table 3: Position**, held by parents in their job profile, less than the officer grade with 48 percent and officer position occupies with 21 percent. The nature of the chief officer and proprietor has gathered with 17 and 14 percent respectively. This table shows that all the parents are having somewhat interest in education and that is being reflected in their respective position held in the organization.

Table 4: Family System

	Family system	Response	%
a.	Nuclear family	52	15
b.	Joint family	298	85
	Total	**350**	**100**

*(**Source:** Primary Data – Questionnaire)*

The above **Table 4: Family System** reveals the strong position in relation to Joint Family System with 85 percent and Nuclear Family with 15 percent. It goes without saying that the importance of education was being felt to a strong level in the Joint Family System compared to Nuclear Family.

Table 5: Living Atmosphere

	Living atmosphere	Response	%
a.	Friendly	163	47
b	Cordial	78	22
c.	Adjustable	55	16
d.	Strict atmosphere	54	15
	Total	**350**	**100**

*(**Source:** Primary Data – Questionnaire)*

As far as **Table 5: Living Atmosphere** is concerned, friendly and cordial nature occupies with 47 and 22 percent respectively. The condition of adjustable with 16 percent and strict atmosphere with 15 percent occupies the last position. For getting good education a congenial and supportive nature are needed and this table provides ample opportunities for that purpose tremendously.

Table 6: Family Status

	Family consisting of	Response	%
a.	Parents	52	15
b.	Parents and elderly people	54	15
c.	Parents, elderly people and relations	140	40
d.	Only a and b	104	30
	Total	**350**	**100**

*(**Source:** Primary Data – Questionnaire)*

An above **Table 6: Family status** shows that living with parents, elderly people and relations constitute 40 percent, and the other two categories such as parents and parents with elderly people occupies 15 percent each. The next level of analysis is related to **Teachers** and the following table reveals certain important results, and these are detailed below.

Table 7: Teaching Methods

	Teaching methods	Response	%
a.	Simple to understand	198	57
b.	Own methods	108	31
c.	Self-learning methods	19	5
d.	Difficult to follow	25	7
	Total	**350**	**100**

*(**Source**: Primary Data – Questionnaire)*

The above **Table 7: Teaching methods** show that while teaching the subjects are simple to understand with 57 percent followed by teaching methods are of their own methods with 31 percent. Students with 7 percent mentioned that it is difficult to follow, and 5 percent said that their self-learning methods for the subject's ranks last. We can understand from the above table that one with a passion for teaching alone can innovate in new methods of teaching and making students to be inclined towards learning the subjects.

Table 8: Training Courses Attended

	Training courses attended	Response	%
a.	None	219	63
b.	Only a few	74	21
c.	Regularly attending	40	11
d.	Once in a year	17	5
	Total	**350**	**100**

*(**Source:** Primary Data – Questionnaire)*

The above **Table 8: Training Courses** attended, a majority with 63 percent has not attended the course, and 21 percent relates to only a few attended the same. Those who are attending regularly show 11 percent and a paltry 5 percent show they attended only once in a year. It is important to take advantage of the new and varied methods that are available for teaching the subjects. The aim is to see that the students are benefited from the real purpose of education, i.e., gaining knowledge for leading a happy and contended life.

Table 9: Salary

	Salary	Response	%
a.	Fully satisfied	54	15
b.	Satisfied	76	22
c.	Poor	95	27
d.	Very Poor	125	36
	Total	**350**	**100**

*(**Source:** Primary Data – Questionnaire)*

In **Table 9: Salary** shows a sorry state of salary payment. The amount of salary paid was considered very poor with 36 percent, followed by poor with 27 percent. Only people with 22 percent satisfied with the salary paid and fully satisfied with the salary aspect with 15 percent. It is quite natural to see that after all education is to live a life of happiness in nature and that too with financial status is the basis. But for teachers when paid less those who are going to produce a responsible citizen for this country, it is quite important to know by the Government and all educational institutions to pay a good salary to teachers in schools. It is a must and should consider in favor of teachers.

Table 10: Teachers' Attitude

	Teachers' attitude	**Response**	**%**
a.	Friendly with all	169	48
b.	Suggestive nature	97	28
c.	Cooperative nature	65	19
d.	Reserved type	19	5
	Total	**350**	**100**

*(**Source**: Primary Data – Questionnaire)*

In **Table 10: Teachers' attitude**, they are friendly and suggestive nature with one and all in the school occupies with 48 percent and 28 percent. Not only that cooperative nature shows a percentage of 19 and only a meagre category of teachers are having reserved nature with 5 percent. Overall, teachers' attitude shows a mature mind and showing the interest of students and their future to a great extent. The final part of the analysis relates to **Students** and their responses to various questions related to education oriented. These are analyzed in a simple way to understand the main aspects of the questionnaire.

Table 11: Performance

	Performance	**Response**	**%**
a.	Outstanding	115	33
b.	Very good	95	27
c.	Good	89	25
d.	Average	51	15
	Total	**350**	**100**

*(**Source:** Primary Data – Questionnaire)*

The above **Table 11: Performance**, shows the results of students' performance in the class. Nearly 33 percent opined outstanding and very good with 27 percent. A percentage of 25 goes towards good performance and an average with 15 percent. In fact, good performance goes with the congenial atmosphere at home, followed by parent's education and their attitude towards children. Not only that the method of teaching the subjects by the teachers are also paved the way for good performance of the students.

Table 12: Friends

	Friends	Response	%
a.	Supporting nature	150	43
b.	Importance given to education	113	32
c.	Creative nature	72	21
d.	Minimum level	15	4
	Total	**350**	**100**

*(**Source**: Primary Data – Questionnaire)*

In **Table 12: Friends**, most friends are supportive nature with 43 percent followed by 32 percent with the importance given to education by friends. Some friends are creative nature with 21 percent and 4 percent with minimum friends' role in education. All signs of the positive nature of friends will go a long way in getting good knowledge which will form the basis for the future. These things are attributed to the lineage of family tree added with a good education of parents.

Table 13: Future Planning

	Future planning design with	Response	%
a.	Parents	135	39
b.	Teachers	109	31
c.	Relations	46	13
d.	Friends	60	17
	Total	**350**	**100**

*(**Source**: Primary Data – Questionnaire)*

The above **Table 13: Future Planning** of students' life, Parents with 39 percent and Teachers with 31 percent are occupying a prominent place in shaping the future of students' life. Relations and Friends are sharing with 13 percent and 17 percent respectively. This table gives a glimpse of Family status and its role in future planning of students' life to a greater extent. Cooperative the attitude of parents and sincerity of teachers goes to a great extent in molding the future life of students.

Table 14: General Attitude

	General attitude	Response	%
a.	Friendly	248	71
b.	Reserved	102	29
	Total	**350**	**100**

(*Source:* *Primary Data – Questionnaire)*

The above **Table 14: General Attitude** of students', friendly attitude gets a maximum of 71 percent and 29 percent to the reserved attitude of students. Again, the family background, parent's education, work status and general attitude of parents in supportive nature shapes the attitude of students which will naturally help in having a peace of mind. This will enable them to concentrate on education and thereby gain adequate knowledge for happy living in this fast-changing world.

Table 15: Methods of Preparing

	Methods of preparing	Response	%
a.	Own method	85	24
b.	Guided by parents and Elders	105	30
c.	Teachers	125	36
d.	Relations	35	10
	Total	**350**	**100**

*(**Source:** Primary Data – Questionnaire)*

In **Table 15: Methods of preparing** for exams and other tests, the methods showed by the teachers gained with 36 percent and 30 goes towards parents and elders. Their own method preparation occupies 24 percent and that of relations goes to the last with 10 percent. It is not a wonder to see that teachers with dedication in teaching and showing a keen interest in the growth of students' life coupled with parent's nature and education plays a dominant role in the method of preparation.

11.Findings of the Research Study

1. Most of the parents who were considered for the study, are well educated and working with decent position and getting a regular salary enough for happy living.
2. Since the family system consisting of elderly people in the Joint Family System, most of the decisions and directions will naturally be an experienced and well-motivated one.

3. In so far as teachers are concerned salary status is not worthy to mention.
4. Passion for teaching makes them to follow simple methods for teaching the subjects to the students and takes everything easy in all matters and moving in a friendly way with all, in and outside the campus.
5. Parents education, work, and the living atmosphere at homemakes students to perform well in subjects and able to get good friends.

12.Suggestions

1. As teachers are the backbone for the progress of a student's life, they must be paid a decent salary. Sending them to attend various training and refresher courses will further their knowledge about the teaching methodology and will make students learn in a better way.
2. Parents should realize the importance of education in this perplexed world and should pay more attention towards it. Under any circumstances, a calm, congenial and supportive nature be made available for learning purpose.
3. Students must give their ears to parents and elders suggestions as far as their future and education is concerned. They must learn to conquer listening and patience skills in order to excel in studies and future bright life.
4. Value education should be given importance in the school curriculum by planners of education.

13.Conclusion

Education plays a prominent role nowadays. Towards these parents, teachers and students must understand their own importance in the society and avail the benefits bestowed by the education. Life will be a smooth sailing once the education got in the right directions. The Future belongs to the one who realized and learned the lessons from the mistakes of others.

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