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Editorial

Today, people are moving from paper based communication to digital content, they have now embraced internet and mobile phones. Digital Content is also replacing the traditional forms of marketing very rapidly and it is considered to be more flexible and streamlined than the latter. Digital Media is not only providing different possibilities to marketers but also to consumer. To help further the research on this subject, we have included two research papers in this edition. One entitled, 'Digital Landscape and Consumer Communication' that illustrates the impact of intersection between digital media and consumer behavior, specific to consumer empowerment and sovereignty – how they use devices and platforms effectively with different socio-economic variables. Second, entitled, 'A Study of Emerging Trends in Brand Engagement through Digital Marketing', that discusses how Internet advertising has recaptured the imagination of marketers, who see an enormous potential to raise the profile of their brands through engagement vehicles such as paid search and online video. One way marketers are trying to reach consumers is with Multi-Channel digital marketing. Many marketers also find Multi-Channel campaigns more effective, and think they improve the performance their brands.

Agriculture, even today, along with its allied sectors, forms a primary source of livelihood for 58% of rural Indians. This sector contributes to 10% of export and is one of the largest contributors to the GDP and the sector is likely to have better productivity in the coming years because of increased investments. We have received two contributions related to this sector. The first research paper is entitled, 'A Study of Jaggery Marketing in Kolhapur District'. It discusses Maharashtra as one of the leading producers of Jaggery apart from sugar

and how direct sale of jaggery to the ultimate consumer by the producer is not possible. And hence It becomes necessary to identify and understand the role of producers, middlemen and agricultural market committee in the development of jaggery industry in Kolhapur. Second paper is entitled, 'Value Creation, Sustainability and Integration of Agricultural Supply Chain of India'. The focal point of paper has been supply chain mechanism in Indian agriculture. It has been assessed through primary and secondary data and information which was obtained through application of scientific research method by formulating research design and the research was conducted by utilization of diverse kind of methods to assess the objective which includes research methods such case study, in-depth interview content analysis, triangulation method, observation method for primary data and information.

The next article is entitled, 'Globalisation & South-South Co-operation'. This article discusses how South-South cooperation has been steadily gaining momentum and has shown encouraging trends. The rapidly expanding connections between the countries are also leading to a more balanced form of globalization. New trade routes are flourishing: countries as diverse as Morocco, South Africa, Thailand, Turkey and Vietnam each have substantial export and import relationships with more than 100 economies. It also mentions that new and improved technologies, adapted to local conditions, are boosting people's productivity and enabling production to be shared across borders

The next research paper entitled, 'Effect of Formal Mentoring on the Objective measures of Performance in IT Industry in India' focuses on the

effect of formal mentoring programs on the performance of a protégé in an organization in comparison to its effect on the performance of a non-mentored individual. The performance measures considered are objective measure of salary increment & promotion. The research results indicated that mentoring increased the salary of the mentored employees. However, mentoring did not help to improve the rate of promotions in the mentored employees.

The other two papers are entitled, 'Indian Financial Market -with Special Reference to Derivative Trade in NSE' and 'A Study of Development Communication in Planning in North Eastern States with Special Reference to Mizoram. The former paper mentions that the Indian financial market is one of the fast growing markets in the world and derivative trade is one of the important constituent. The study is based on the growth and development aspect of various types of derivative

in India during the last decades. The objective is to know the proportion and position of various components of derivatives among the total derivative trade and exploring the reason behind it.

The latter research paper discusses the markets in the north-eastern states and how the State Government of Mizoram has decided to provide effective communication with sound e-governance plan. This plan is aimed at ensuring developmental goals. The larger ambit of development through efficient communication technology would meet the market challenges as well. In the initial stages the government would attend to the judiciary, consumer grievances, tendering, indirect taxation, transport and market price in a wider manner. Though the undulating terrain has been a severely constraining factor yet the State Government of Mizoram successfully endeavored to connect the sub-division offices and district headquarters to the capital.

Editor



Digital Landscape and Consumer Communication

Vineet Kaul*

Abstract

Since the beginning of the new technologically vibrant millennium, the new digital communication technologies have been constantly transforming marketing dynamics and consumer behavior. This paper illustrates the impact of intersection between digital media and consumer behavior and, specific to consumer empowerment and sovereignty – how they use devices and platforms effectively using different socio-economic variables, and how they make decisions about which to use when and customers interact with each other through new media, and how these interactions affect what customers think and how they behave in a relationship with a brand. This paper contributes to existing marketing literature by offering a framework that integrates various expressions of consumer behavior in digital media and links them to forms of consumer power.

With regard to brand attitudes, which include the thoughts and feelings that a consumer has about the focal brand, as well as new media attitudes, as consumers' thoughts and beliefs about the roles of media vehicles in their lives. In the modern era, digital literacy has become a “survival skill” - a key that helps users to work intuitively in executing complex digital tasks. Consumers that score high on both kinds of attitudes will exhibit high new media brand engagement – non-purchase customer behaviors that involve new media, such as creating and watching YouTube videos about the brand, blogs, web sites, reviews, etc. Relationship outcomes considered in this paper include short-term and long-term measures.

Keywords: *digital communication, consumer, consumer empowerment,, brand attitude, digital media*

Introduction

Communication changed overnight, resulting in instant and ubiquitous information, shared globally through diverse channels. This heralded the reaching of a new era of consumption for new generation- well connected; constantly updated and widely networked. Since 1980s digital was a utopian dream for enthusiastic and digital technologies and it has arrived as revolutionary if not redemptive development. Today there is more information available than in any encapsulated system-no matter whether you are at home or taking a stroll in woods. Now digital media is a part of the minutiae of everyday life and we are living in the post-digital age. It is said that the traditional marketing still has a wider reach

across the population, but typically does not carry the same explosive potential for change that characterises the most extreme examples in the digital space. As the trajectory of the 21st Century begins to take shape, no other single issue has higher potential, greater challenges, or wider implications for consumer justice and protection than digitization. Thanks to the proliferation of digital devices and platforms which help to ensure that we build sustainable socio-economic relationships both with advanced knowledge and technology. This plethora of new media is migrating customers from paper-based to digital communication on a strategic management level. To start digital transformation successfully one needs to understand digital consumer, choices and preferences which lead to macro-level consumer-centric changes

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within the organizations that focus these needs. Customer is gradually changing into 'e-customers' with the use of internet, mobile devices, social media and raising the bar of digital expectations. By 2020 there will be 50bn internet enabled devices (Telefonaktiebolaget LM Ericsson, 2011). Because these ubiquitous devices are all connected with each other they will make the internet of things become meaningful reality.

Traditional communication has become obsolete and marketers today care more and more about new media rather than mass media. Digital is not only a key channel of communication but also a choice to conduct volume of business. Consumers are enjoying freedom and have become hyper active partners so as to remain constantly connected with network of other hyper-connected consumers. The rise of new media channels such as Face book, YouTube, My Space, Google, and Twitter, no longer require computers too has become an integral element of consumer behavior which enable customers to take a more active role as market players navigating their way around the modern shopping labyrinth and reach almost anywhere and anytime. The use of search engines/ bolts has transformed the way passive consumers get information about products, services, firms and people. These new media threaten long established business models and corporate strategies, but also provide ample opportunities for growth through new adaptive strategies. The evolution of digital capability is a fluid and on-going process. Connectedness is pervading consumers' daily lives, and they continue to crave even more. People check their phones continuously, virtually anywhere they find themselves. Maintaining their digital connections is more important than ever before. Consumer businesses need to accelerate digital thinking across the enterprise to drive digital evolution.

The digitization of everything is a step change even greater than the invention and adoption of internet primarily because of its scale and pace of change (Ingelton et al, (2011). Exponential technology advances, greater consumer power and increased competition mean all industries face the threat of commoditisation. The winners will act now, and build a strategic advantage that leaves their counterparts wondering what happened. To start digital transformation successfully one needs to

understand digital consumer, choices and preferences which lead to macro-level consumer-centric changes within the organizations that focus these needs. In order to stay ahead in the race, the modern-day business has to willy-nilly use digital technology not only to stay connected to customers, but to capitalize on the stupendous amounts of data available to stay ahead of the competition.

In 2005 consumer products giant Proctor & Gamble had coined the term FMOT (first moment of truth) when buyer uses the product and it either lives up or fail. Today the way people shop has changed and web browsing has become excessive pervasive. This has made shoppers to read reviews, compare prices, evaluate options. Then what happens to "first moment of truth?"

Now Google's chief ZMOT evangelist has introduced ZMOT (Zero Moment of Truth) wherein shoppers are "pre-shopping" on line researching products and brands and also what to buy or how much they should pay. As Google's ZMOT handbook for marketers explains, "the sales funnel isn't really a funnel anymore." Today there is a new, empowered consumer generation that does its homework ahead of time at this new and critically important Zero Moment of Truth. It is a sensitive behavioral change and marketers need to take into account when planning their marketing blueprint.

The myriad developments of digital technology have brought tsunami storm surge in the shopping paradigm and adapting to this ongoing digitization is arguably the most challenging transformation every business is encountering. Today, more and more brands are waking up to the transition and are preparing for service oriented shift from product design to R&D, communication, sales, customer service, and finally returning again to design. If marketers have to survive these digital divas, they have to learn to navigate the turbulent and challenging realities of a business. In the era of social networks, brand loyalty keeps plummeting, and the increased competition is continuing to transfer power from institutions to individuals. We have already entered the era of Digital Darwinism and the mantra is "adapt or die". "Customer is king" and the new media offers multifarious ways to reach consumers, communicate with them, and measure their communication

proWess, browsing or purchase-related attitudes. The companies investing more in learning about behaviors, expectations and preferences will have a significant competitive edge over those that figure out later.

It's not just the small, agile startups like Instagram, Twitter, and zipcar who will profit from innovation through digitalization and revolutionize old business models. Digitalization is not a destination point for companies or brands, but rather a profound transformation process that requires focus and strategy in order not to lose sight of the business goals. Digitalization is gaining momentum and becoming a priority and hence to avail the opportunities offered require a spacious understanding as to why consumers are largely attracted to potential social impacts of these new media frameworks and how they influence consumers' consumption affect and behavior and which are in line with the perceived impact of their new media and their effects on customers. Digital transformation also represents maturity of companies to outperform peers and introduce new models for business and, equally, create a way of staying in business as customers become increasingly digitalized. Achieving and retaining leadership will require consistent renewal and presentation of product with improved consumer-oriented and technology based fascinations.

The customer relationship management literature recognizes the long-run value of potential and current customers. Companies is now increasingly focused on managing the major challenges of customer relationships. Today's brands are concerned with how consumers feel about their products and introduce inputs to drive innovations. Moreover, according to past research (Ha, 2005), brands evoke emotions (Bowlby, 1979), memories, and fantasies. In the context of brand strategies, this tendency can be translated into the Consumer-Brand (from now on C-B) relationship (Chang and Chieng, 2006). This relationship has been demonstrated to enhance several outcomes, such as brand loyalty (Park, MacInnis and Priester, 2006), brand durability (Ahluwalia, Burnkrant and Unnava, 2000), and consumers' willingness to pay a premium price (Thomson, MacInnis and Park, 2005). Therefore, in the recent years, brands find it imperative to maintain strong relationship

amid competition. An evidence of these changes can be found into the growing marketing literature focused on the emotional aspects of brand relationship (Thompson, Rindfleish and Arsel, 2006). In the past decades, scholars identified emotional and symbolic aspects in consumption experiences (e.g., Hirschman and Holbrook, 1982), and more recently researchers have paid greater attention to these emotional aspects, such as emotional attachment (perception of closeness of the self to a brand) (Fournier, 1998), emotions as reflection of personal and group identification or as a signal of social status associated with other brand users (Strizhakova, Coulter and Price, 2008). Scholars have found not only that emotional aspects of C-B relationships are crucial in enhancing relationship quality in those individuals who are emotionally attached to a brand, but also that these individuals exhibit greater loyalty to it (Thomson, MacInnis and Park, 2005). In fact, as Belk (1988) showed in his research, consumer's purchases are partly driven by a desire to communicate their personality through wearing or using branded products. Although a growing body of literature has focused on the role that emotional factors play in the C-B relationship (Fournier, 1998), this role overtime is complex, dynamic and multi-determined. Particularly, it is interesting to note that, as Hwang and Kandampully (2012) stated in their recent work, the purchasing power of young consumers, including teenagers and generation Y individuals (people born between 1977 and 1994) has increased, and these younger consumer groups have become relevant consumer segment in various brand categories. Therefore, the analysis of the emotional elements related to the relationship between younger consumers and brands is of great interest'

Barely half-a-decade back - and it seems like eons ago -the rules of marketing were simple. If you had a product, you'd develop a slick marketing plan, set up shop to sell it, draw customers to your shop through ads and promos, get smart sales people to wheedle them into buying and once the buyer reached out for his wallet the job was done. You're happy, the customer is happy. Professionals argue that traditional marketing resembles pinball game/ metaphor (Hennig-Thurau et al.2010) where 'ball' is marketing instruments, 'pins' are to reach and influence customers and 'bowling alley' is mass

media. The art of “pinball playing” illustrate this in a conceptual framework and each phenomenon affects (a) consumer behavior, (b) the successful management of customer interactions, and (c) measuring customers’ activities and relationship outcomes, highlighting areas for future research. Two main differences reflect alterations in consumer behavior connected with the rise of social media. Resultantly, consumers gain more power in the new pinball environment than they had in old pinball game (Labrecque et al, 2013). The unpredictability of game is increased by mass media in the form of sling-shot and bumper thus multiplying social media episode. Playing pinball ourselves is an appropriate place to start provided we have substantial budgets for learning how to play. Academic research has not yet shed much light on the organizational adaptations required for success in the new pinball world. To keep in touch with the marketplace, scholars in every area of the marketing discipline need to understand the implications and consequences of the new paradigm.

With an unprecedented proliferation of devices and the explosion of the learning algorithms to sense, predict, infer and, in some ways, even think- digital channels are reshaping consumer decision-making process. They take more time, complete more research and travel through more points of influence than ever before. This is not always the case that marketers deliberately push consumers through the Consumer Decision Journey in a linear fashion. Many a time consumers have varied experiences or are influenced by sundry other factors and use different tools to decide on a purchase. It is online or offline, a successful marketing starts with a proper understanding of consumer decision journey en route to a purchase. This journey nevertheless has become much more arduous since digital technology touch points are seeping into decision journey. For decades, marketing visualized these touch points through the metaphor of a funnel but now consumer savviness has grown exponentially with the rise of digital. If we retrospect the consumer had started with total product ignorance, gradually progressed to increased product awareness, and now has ideally arrived at the decision to purchase. Potential customers are more well-informed than ever before and are increasingly comfortable seeking

out that information on their own instead of waiting for a marketer to deliver it to them. He follows consumer decision journey while selecting brands, products and services. Savvy decision-makers know that a traditional, wide-net, one-size-fits-all campaign is often no longer sufficient—the times call for a more holistic approach. Marketers need to stay cognizant of multiple choices of influential factor and use a mix of marketing tactics. The key to success lies in testing, iterations and guiding future strategy with appropriate metrics.

Omnichannel marketing offers marketers and retailers a holistic approach to reaching consumers with a more integrated message, through any channel and at any point in their path to purchase. Now, omnichannel marketing is making the path to purchase so complicated the linear funnel model has become obsolete and replaced by the “measurable Consumer Narrative “.Today’s consumer journey is more like an infinite loop, where shoppers are always discovering, considering and buying via multiple channels. So keeping them engaged is an ongoing process.. Customers are swamped with online and offline choices for buying new products/ services not requiring to remember and explicitly formulate an opinions on considerations and preference for brands. Once digital media was considered to be as a mere information gathering venue but now digital media and brands are weaving an important role in facilitating conversation about their products .Most companies know how to think through customers needs and engineer advocacy creating automatic way for consumers and engage customers in these digital channels. Now “shopping” behavior can be seen outside of consumer consciousness exploring validated brands, consumer emotion, albeit in quite different ways. According to researchers, new consumer engagement metrics should be clubbed with evolving purchase decision model. Every day, advertisements, conversations with family and friends, news reports and product experiences make us form impressions of brands. It will be a waste exposure unless consumers are actively shopping. But if something triggers the impulse to buy, what happens? Then the accumulated impressions become crucial because they shape the initial-consideration set: the small number of brands consumers regard at the outset as poten-

tial purchasing options.

The ubiquity of *process* models of decision-making looks to be a circuitous journey supposedly having four primary phases reflecting potential battlegrounds where marketers can lose or win : active evaluation ,initial consideration, or the process of researching potential purchases; closure, when consumers buy brands; and post- purchase, when consumers experience them. If we compare the funnel metaphor, that does not assist much—like, by assisting to understand the plus-points of a brand vis-a-vis its competitors at different stages, underlining the bottlenecks that stall adoption, and paving way to focus on various aspects of the marketing challenges.

Alignment cannot be achieved by simply integrating your marketing automation system with Salesforce.com. It's not about defining a new lead management approach. And simply creating more content and tools won't align anything. True marketing and sales alignment requires a fundamental shift. Consumers now-a-days connect with brands often through media channels beyond manufacturer's tether. Funnel metaphor is outdated and consumers use a variety of publicly available sources to better understand search activity and traffic patterns. Other marketers may need to retool their loyalty programs by focusing on active rather than passive loyalists or to spend money on in-store activities or word-of-mouth programs. The increasing complexity of the consumer decision journey will force virtually all companies to adopt new ways of measuring consumer attitudes, brand performance, and the effectiveness of marketing expenditures across the whole process.

Without such a realignment of spending, marketers face two risks. First, they could waste money: at a time when revenue growth is critical and funding tight, advertising and other investments will be less effective because consumers aren't getting the right information at the right time. Second, marketers could seem out of touch—for instance, by trying to push products on customers rather than providing them with the information, support, and experience they want to reach decisions themselves.

Marketers have long been aware of profound

changes in the way consumers research and buy products. Yet a failure to change the focus of marketing to match that evolution has undermined the core goal of reaching customers at the moments that most influence their purchases. The shift in consumer decision making means that marketers need to adjust their spending and to view the change not as a loss of power over consumers but as an opportunity to be in the right place at the right time, giving them the information and support they need to make the right decisions. Not all organisations can win the battle to retain the customer relationship – the digital world has thrown organisations into a strictly competitive game.

Emotions and Digital Consumer

Emotions are the source of inspiration, creativity and innovation, and central to understanding brands, the consumer-brand relationship and how to use emotion to benefit brand communication. 'Emotion', however, is a complex and slippery term which we tend to take for granted. Marketing, social, psychological, and philosophical literature abounds with argument about what exactly 'emotions' are and their links with terms like 'feelings', 'moods', 'affect', 'arousal'; let alone their relationships with 'motives', 'needs' and 'wants', and the part they play in forming 'attitudes', 'values', or 'goals'. Emotions represent key components of consumer judgments, decision and evaluation and like cognitions, have an impact on consumption, to more nuanced understandings of what drives the experience of discrete emotional states, how those discrete emotions uniquely affect decision making and the motivations that consumers might have to regulate their emotional states over time One has to also understand how perception of quality of global brands, in relation with brand identification and emotional attachments are interrelated in contributing to brand loyalty (King 1773). Neuro-marketing/ scientists are elaborating the "somatic-marker" hypothesis (Antonio Damasio, 1994) and shifting away from marketing those appeals to people's rational sides towards appealing more to their emotions. Emotion is based on perception and perception is based on extero-

ceptive stimuli — what is seen, touched, tasted, heard and smelled, basically the holistic consumer experience. The last 100 years, psychologists have offered psycho-evolutionary variety of definitions, each focusing on different manifestations or components of the emotion. Emotions are understood as a very complex term playing an important role in our lives providing meaning to everyday existence (Cacioppo et al). As there seems to be no empirical solution to the debate on which component is sufficient or necessary to define emotions, at present the most favoured solutions is to say that emotions are best treated as a multifaceted phenomenon. Emotions are the primary reason why consumers prefer brand name products.

Brand emotions can be essentially personal, private and difficult to articulate, and are therefore communicated through labelling conventions of words, behaviour, body language, and metaphors for the emotional experience, which can also help articulation of emotions. There are two pathways in response to the emotional stimuli of brand communication: one cognitive and the other emotional. These are integrated via an 'ego executive function' which seeks to optimize consumer satisfaction in the context of personal, social and cultural values. A brand is nothing more than a mental representation of a product in the consumer's mind. Brands comprise both physical and socio-psychological attributes and it is marketing that builds your ego. Brands can imbue unique meaning to consumers and such meaning and personal experience with a brand can create a connection, or relationship, between the consumer and the brand. Because it makes you feel better about yourself, the brand transcends mere product status and is magically transformed into a friend. This gives the brand a heart and soul that builds life-long attachment. These are brands that share your values and priorities .Fournier [1994; 1998] was one of the first to conceptualize consumer brand relationships. In the past decades, scholars identified emotional and symbolic aspects in consumption experiences (e.g., Hirschman and Holbrook, 1982), and more recent researchers have paid greater attention to these emotional aspects, such as emotional attachment (Fournier, 1998), emotions as reflection of personal and group identification or as a

signal of social status associated with other brand users (Strizhakova, Coulter and Price, 2008). Consumers are motivated to regulate not only the valence of their emotions but also the arousal associated with their emotional states. Scholars have found not only that emotional aspects of C-B relationships are crucial in enhancing relationship quality in those individuals who are emotionally attached to a brand, but also that these individuals exhibit greater loyalty to it (Thomson, MacInnis and Park, 2005). In this metaphor, a consumer and a brand are theorized as being in a dyadic relationship similar to a relationship between two people. Subsequently, brand relationships can help consumers develop and communicate something about who they are, who they were, or who they aspire to be. The study also reminds us that arousal, not just valence, can play an important role in the desirability of emotions, as calm happiness in the moment is associated with lower arousal, while future-oriented excited happiness is much more energetic. consumers are motivated seekers of emotional states and that feeling good is not just a function of valence but is also driven by the energy that our emotions might require to sustain and perhaps provide to help us engage in future behavior.

Though the new digital world is complex and confusing but rich, intimate, alive, connected, networked, and hyper-aware .The inexorable rise of digital consumers is radically shifting the dynamics of the marketplace and communications, all of which is largely due to the acceleration of mobile infrastructure and digital technology revolution. In today's digital advertising world, the ubiquity of technology has quickly hidden the most important response rate of all time; the true human response – the emotional response. Digital is an optimal mechanism for developing consumer-brand relationship due to its interactivity. Digital provides a viable platform for the formation of such relationship and has become so central to people's behaviours that brands now should be thinking about "post-digital marketing . Digital can no longer be treated as a separate discipline or corporate function. Campaigns must now be omni-channel running seamlessly across online and offline media. Emotional branding" is by no means a recent innovation; it's been around since the dawn of advertising and

it's here to stay, making appearances in every memorable ad campaign. It's a concept designed to instill powerful sentimental feelings towards the company in the client, the consumer's attachment of a strong, specific, usage-relevant emotion—such as Bonding, Companionship, or Love—to the brand. Psycho-evolutionary theory of emotion explains that emotions are not only adaptive but also play an important role both in cognition and behavior. Major advertisers have coined the phrase “high-definition media and marketing ecosystem” to describe the new media landscape, where consumers are continuously targeted and wooed both online and in the “real” world. Emotional marketing, however, is the ying to data-driven marketing's yang”. What if a technology could quantify emotions into actionable data? What if we could turn the historically creative practice of storytelling and writing into a scientific practice rooted in data?! Emotional marketing and data don't necessarily need to be complimentary; they can be one in the same. We can quantify emotions to programmatically generate language that inspires action... actions that in turn fuel insight. This technology and practice is applicable for all brands who elicitate/engagement/response/revenue from marketing campaigns.

A totally emotional decision is typically very fast. This is because it takes time for the rational cortex to get going. This is the reactive decision-making that you encounter which either overrides logic or uses a pseudologic to support emotional choices. Values that drive the brand decision process to have become more emotionally-driven. In most categories the rational aspects are price-of-entry. Successful brands will identify what emotional values exist in their category, and utilize them as a foundation for meaningful differentiation. The consequence of this new digital era is the proliferation of consumers' behavioural data. Back in the day when the points of contact with brands concentrated on very few channels, intuition-based decisions drove most of companies' marketing strategies. Consumers connect with brands through an ocean of new channels that generate daily an amount of data that leaves marketers struggling to understand what works or doesn't work.' While we are committed to a data-driven approach, at the same time we are sensitive to the emotional connection we

need to make with our audience to truly tell our story. While very much data-driven in terms of metrics and optimizations, it's the creative nature of our campaigns that tap into the emotions of the fitness enthusiast and motivate them to be more active.'

In this new world of marketing, where everything can be measured, monitored and analyzed, it's about grabbing the right slice of an audience's attentions. And so, it becomes increasingly critical to incorporate the right kind of metrics and the right analyses. 'Marketing strategies without data analytics is like trying to make fire without oxygen. It is impossible.' Marketing must go through a dramatic change. This is not a superlative statement to garner interest or generate hype. It is the truth and still so many brands refuse to admit how weak and complacent they have been with their marketing efforts. Are brands really keeping up with their customers and their target audience behaviors? We actually want to create an emotional bond between the brand and the consumer/client. If we continually feed our customer with meaningful content/communication/engagement, and then we might actually create an emotional bond rather than just stirring a few one-time hits of emotion.

“With regards to emotion – do not mix this up with emotional bond. A brand should aim for getting their target audience emotionally connected to them. This has to happen over a course of time by continually playing to the audiences' emotions. A good brand appeals to its users by tapping into their emotions ... This is a one-time event. But a great brand does this continually to not just drive an emotion, but to obtain strong loyalty and an emotional bond.” Our digital world has made our audience skeptical of advertisement. People can get real information across the Internet. And at the same time, the Internet/digital/mobile/social world presents an opportunity to continually disseminate valuable information and interact with the target audience. So in essence what the new digital world has really created is a detriment for marketers that look for quick hits just to stir emotions. But at the same time the digital revolution creates an opportunity of great success for those that are committed to longer-term communication and engagement to build an emotional bond with a potential audi-

ence.

Branding in the Digital Age

The days of pumping out marketing messages and waiting for buyers to place their orders are well behind us. The dictates of digital marketing today limit the expression and visualisation of the brand. Content is seen above creativity yet when all content is optimised and every meta tag in place we must ensure it is the brand that will reign supreme. Every interaction that B2B buyers have with brands today is influenced by shifting digital touch points that can enhance or destroy the sale. When buyers turn to digital channels to investigate their options brands must be ready with suitable content and signposts to efficiently guide them towards purchase. Branding has changed because consumers have changed because of vast impact of Internet, social media and mobile. Today, the successful branding involves a myriad of strategies, concepts and channels—a mixing of tried and true principles and an ever-evolving, agile adaptation to the digital age we live in. Consumers are promiscuous in their brand relationships. After a purchase these consumers may remain aggressively engaged, publicly promoting or assailing the products they've bought, collaborating in the brands' development, and challenging and shaping their meaning. Smartphones, portable entertainment products, digital displays, tactile-, motion driven displays... and even new material and methods of branding, displaying and putting a brand within the senses of a consumer is now possible.

It sounds bizarre if it said that “Brands have magical power to change the world” but it is quite true. Brands are everywhere influencing consumers' daily life, behavior, attitude, and even their values. Thanks to digital media that consumers can now demand a seamless experience facilitated by explosion of digital media and interaction. Digital is significantly affecting the roles brands play in driving choice, commanding a premium and building loyalty. Let us assume that a customer has decided to buy a motorcycle. There is a plethora of choices but he does not think much and names XYZ brand. This is because the fragmenting of media and the proliferation of products that have made him decide

a brand beforehand. Brand awareness plays a pivotal role during the active –evaluation phase. It is fair to say that the balance of power between consumer and business is undergoing a sea change. The individual consumer is going stronger and companies are getting weaker. We have entered the world of conversation.

In 2009, McKinsey & Company reworked on the funnel metaphor and proposed a new model called the Consumer Decision Journey. Digital has facilitated never-ending snowstorm of information and companies have no way of stopping it.. Contrary to the funnel metaphor, the number of brands under consideration during the active-evaluation phase may now actually expand rather than narrow as consumers seek information and shop a category. To generate brand value, think of Disney's commitment to magic, Apple's to humanizing technology, BMW's to driving experience, Coca-Cola's to putting desire within arm's reach. The potentials are endless, but the common theme is the digitally-enabled opportunities to turn every business into an 'always on, always relevant' business. In this age of dynamic dialogue, it is imperative to hear and understand what consumer wants and P&G, Idea and AT&T, IBM and Linex; they harness the power of interest like an active brand loop.

Now let us consider what brands mean to digital. The Dot.com boom had sounded the death-knell for brands but it fizzed. This is because brands are about people and human behaviour from expectation and interpretation, to evaluation and ultimately satisfaction. A sterling brand can provide a collective sense of leadership, identity, involvement and values to people and become a living business asset.

Social Media and Digital Consumer

Email and telephonic voice have fallen from over 80% to about 60% of our “communications portfolio”, while time spent on social networks has doubled to take over a quarter of all our communications time. Social media is increasingly becoming vastly popular and a constant in our lives. It is said that next to China and India, it is social media that constitute world's third

largest country but still quite a large number of executives particularly nonmarketers have no idea how to harness the power of social media. They think this to be an enigma wrapped in a riddle seemingly because of nebulous nature. To discuss products, brands, guidance, consumers increasingly go on line and still it is difficult to influence these conversations because of ever-growing varieties occurring either with jet speed or over the months. Secondly, social media do not have any financial impact and companies find it difficult to justify resources. In this given situation, we need to demystify social media and observe how to monitor, amplify, respond and lead consumer behavior and connect with the journey consumer undertake when decisions of purchasing are made. Once we are able to identify when, how and where social media influence consumers can help companies to marshal marketing strategies and take benefit of social media's salient feature to engage with consumers. Social media provides a new channel to acquire product information through peer communication, (Kozinets, 1999). Moreover, by using social media, consumers have the power to influence other buyers through reviews of products or services used. This can also be advantageous to leaders for launching, developing, and demonstrating the financial benefits of social media campaigns. Brand can also be repositioned as employees interact with consumers.

The consumer practices of finding, researching, and vetting brands are accelerating within social media platforms – not to mention the consumer practices which these platforms made popular: expressing brand loyalty or dissatisfaction. These findings provide key insights into social media's growing command on brand visibility, but also its equity in brand ambassadors – the types of customers who tend to provide the most value to companies. In 2014 this is clear that digital consumers increasingly navigate both their online and offline shop-

ping activities through social media. The unique aspects of social media and its immense popularity have revolutionized marketing practices such as advertising and promotion (Hanna, Rohn and Crittenden, 2011) Social media has also influenced consumer behavior from information acquisition to post-purchase behavior such as dissatisfaction statements or behaviors about a product or a company. (Mangold and Faulds, 2009)

Conclusion

Digital consumers are redefining consumer mindsets, patterns of purchase and decision making and organizations that wish to succeed in the future will have to adapt to this new wave of consumers. It's vital and very imperative to leverage the social channels for a superior customer experience. Digital technology is now pervasive in people's lives. The range of products and services online is expanding. Opportunities to interact in different ways with companies, service providers, communities are growing online.

In developing the 21st Century workforce, it is important to understand that your clients are already using more avenues than ever to reach out to you through the Internet and social media. Companies must re-examine their businesses and place the digital consumer at the core of their existence. With the emergence of digital consumers, companies have the unique opportunity to capture the imagination of customers and ensure their loyalty by enabling meaningful self-ervice, providing personalized products, services and experiences and engaging them in their innovation process through co-creation. Organizations must broaden their outlook and institute the necessary cultural and organizational changes that will make them truly digital consumer-centric. The conclusion is to acquire the right customer service skills to master these new channels.

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A STUDY OF JAGGERY MARKETING IN KOLHAPUR DISTRICT

Prof. Kranti Shingate

Abstract

In India, sugarcane is an important cash crop for sugar and allied industries related to its by-products and agro based industries like power, ethanol, fertilizers fungicides, etc. Out of many by-products, jaggery occupies an important place.

Sugarcane is the main raw material required for the sugar and Jaggery industries. India is the largest producer of the sweeteners in the world including Sugar and Jaggery.

Since ancient times, Jaggery has been an important item of food. and even today. India is the largest consumer of sugar and second largest producer in the world. Jaggery making and marketing in India continues to be the larger agriculture-based occupation inspite, of the phenomenal increase in the production and consumption of white sugar. About 40 per cent of the sugarcane produced in India, is utilised for the production of jaggery.

The Jaggery industry occupies a prominent place in the sugar economy, as it consumes 20.36% of the total sugarcane grown in India. Jaggery is a traditional product of sugarcane. It can defined as a honey brown colored raw lump of sugar. Jaggery is made mostly by small and marginal farmers who employ semi- skilled persons. In India, jaggery manufacturing is considered as a big cottage industry under unorganised sector. The Jaggery industry is labour intensive and provides employment to millions of sugarcane farmers and others. It utilizes local skills and resources, gives quick returns as it involves less gestation period and above all, it is one of the mass consumption goods industries.

The Indian state of Maharashtra is the largest producer and consumer of Jaggery. In Mahashtra, most vegetables curries and dals contain Jaggery. Jaggery is specially used during 'Makar Sankrant' for making sweet meat called tilgul. In rural Maharashtra, water and a piece of Jaggery is given when someone arrives home from working under a hot Sun, Kakvi, a byproduct from production of Jaggery is also used in rural Maharashtra as a sweetener. It contains many minerals not found in ordinary sugar and is considered beneficial to health by the traditional Ayurvedic medical system.

Maharashtra is one of the leading producers of Jaggery apart from sugar. Large numbers of Jaggery production units are located in state. In Maharashtra, about 11 to 12% sugarcane was being used for Jaggery preparation during the year 2005-2006 Jaggery from Maharashtra is also well known for its quality, which has wide demand in international market. Marketing is one of the important activities in the production process of Jaggery. Jaggery may also be used in the creation of alcoholic beverages.

The prices of jaggery have a direct effect on the income of the sugarcane growers. Normally, supply of sugarcane to sugar factories in a season is determined by the area under the sugarcane crop and price of sugarcane being paid by the factories and prevailing market prices of jaggery. When Jaggery prices rule high

in the market, sugar factories face a problem of sugarcane supply. Jaggery production involves additional cost, than those, if cane supplied to sugar mill on account of crushing, equipments, labour and other materials.

Jaggery marketing also involves expenditure on account of transport and marketing. The cost of cultivation of sugarcane is the same, whether it is grown for sugar production or for jaggery preparation. The cost on account of preparation of Jaggery and its marketing, however, adds to the total cost to be incurred by the producers. These additional costs of preparation of Jaggery reduce the margin of profitability, if Jaggery fetches low prices.

Kolhapur, Satara, Sangli and Pune districts of the Maharashtra state lead in Jaggery making. Nearly, 35 to 45% of total jaggery production is from these four districts.

As far as jaggery marketing is concerned direct sale of jaggery to the ultimate consumer by the producer is not possible. The reason behind this is the places of production and consumption are widely scattered. Therefore, the role of middlemen becomes significant. Also, Agricultural Market Committee plays a vital role in marketing of agricultural goods. It becomes necessary to identify and understand the role of producers, middlemen and agricultural market committee in the development of jaggery industry in Kolhapur.

Key words: Jaggery marketing, jaggery middlemen, Regulated market, Agricultural market committee and market information

INTRODUCTION

Jaggery production in our country is a traditionally, labour-intensive cottage industry, mostly, confined to rural areas. There is a general thought that jaggery is a common sweetener of the poor. However, it is fairly consumed in almost all sections of society. Jaggery is an eco-friendly sweetener and meets about 40 per cent demand of sweeteners in the country. Jaggery has been in use as energy food and sweetening base for a number of preparations since the time immemorial. Now-a-days, Jaggery meets about 30 to 40% demand for sweeteners in the country. In ayurvedic medicine system, it is used preferentially in medicine. It is used as medicine for the patient suffering from Jaundice, arthritis, kidney problems, joint pains etc. and also as lactogenic and cardiac tonic. Jaggery is also used as part of animal feed mixtures, in making of country liquor and in tobacco curing.

Jaggery has an ayurvedic and nutritious value. A nutritive value of Jaggery, is given below Table. Jaggery is a rich source of Phosphorus, Calcium, iron and Vitamin B as compared to sugar. Magnesium strengthens the nervous system and potassium is vital to conserve the acid balance in the cell and combats acid and ac-

etone. Jaggery is very rich in iron, which helps to maintain the hemoglobin level in blood for preventing anemia disease.

Sr. No.	Particulars	Jaggery
1	Sucrose (%)	65-85
2	Glucoset fructose (%)	10-15
3	Water (%)	3-10
4	Protein (%)	0.25
5	Calcium (%)	0.40
6	Phosphate (%)	0.045
7	Iron (mg/100gm)	11
8	Copper (mg/100gm)	0.80

The important traditional sweetener is commonly known as Gur in India, Desi in Pakistan, Panela in South America and Jaggery in African countries. The art of manufacturing jaggery from sugarcane is as old as human civilization. The trend of sugarcane utilisation has been changed as soon as the sugar mills were introduced in the country. Despite, tremendous expansion of sugar industries in the country, about 45 per cent of the total sugarcane is processed for making gur and khandsari.

In India, jaggery manufacturing is considered as a big cottage industry under unorganised sector.

Gur and Khandsari are among the major agro processing industries found in rural sector of our country. Nearly 50 per cent of total sugarcane produced in the country is used for manufacture of about 8 million tones Gur which is known as the most nutritious agent among all sweeteners (Madan, 2004). Even today, this sector utilizes about 45 to 50 per cent of the total sugarcane grown in the country and provides employment to about 2.5 million people. It is therefore, imperative to expand this sector because, it provides higher food value Jaggery and khandsari at lower cost, it boosts-up the rural economic system, the transportation cost of raw material is low, and there is no need of highly technical machinery & labor (Soloman & Baboo, 1995). Jaggery & Khandsari, which still dominate in the preparation of Indian cookies, are of ancient origin. Gur making plants are generally tiny in size, and the machineries of the plants are fabricated by local artisans or engineering workshops. The plants are located in rural areas of Sugarcane leading zones of Uttar Pradesh (Cooperative Sugar, 2009).

The two main elements of agricultural system are production and marketing. Both are equally important. But modernization of agriculture has brought much stress on the agriculture marketing system. In spite, of more agricultural output, absence of appropriate marketing system gives rise to several problems.

In India, particularly, agricultural marketing has to bear many vagaries. All the elements in the marketing channel are at disadvantage i.e. both the producer and the consumer. The producers' are exploited by the middlemen and middlemen complain about the changes in rules and regulations imposed by the government. On the other hand,

consumers are burdened with price hike caused due to insufficient marketing operations. Several actions had been taken up by the central and state government in India to change the marketing scenario.

Jaggery is produced all over the country, wherever sugarcane is produced. Similarly, it is consumed in all parts of country. It therefore, becomes very difficult for a producer to trace the consumer, for the fulfillment of

jaggery consumption in large or small quantities. Further, product is seasonal in nature i.e. it's production takes place only during November to April in a year but its consumption takes place throughout the year.

This makes it necessary to form a particular dispersion channel which takes care of concentration, equalisation and dispersion. The jaggery produced at various places will be brought by the producers to a centralized place called as market. These producers had very little knowledge or expertise to sell their produce in the market therefore, they mostly depend on some agents. These agents are commission agents. The commission agents or producers' agents contact traders. The dealers ultimately dispose the product to the ultimate consumer in small quantities.

As soon as the product is ready for the market, various routes and methods are used to bring the product to the market. This process involved a particular channel of distribution. A marketing channel may be understood as a path traced in the direct or indirect transfer of title to a product as it moves from the producer to the ultimate consumer ¹.

Middlemen play a significant role in the distribution channel. They are basically the one who either take the title to the goods or negotiate or sell in the capacity of an agent or a broker.

A careful examination was made by the researcher to arrive at the existing channel of distribution. The following channels were present in the distribution of jaggery in Maharashtra in general and in Kolhapur district in particular.

- (i) Producer – consumer
- (ii) Producer – Retailers – consumers
- (iii) Producers – Producers' agents – traders – retailers – consumers
- (iv) Producer – Trader – Retailer – consumer

Database and Methodology

The review of research and literature indicate that no comprehensive research had been undertaken on the marketing of Jaggery including integration of the role of producers, middlemen and the Agricultural Marketing Committee. The sporadic research conducted earlier has limitations regarding their coverage and meth-

odology. A majority of them were general in their approach.

Objectives

Following are some of the objectives of the research work:

1. To know the jaggery profile of Kolhapur district.
2. To understand the significance of the commodity, production process and marketing aspects relating to jaggery in India.
3. To identify the role of producers, commission agents, and traders in the selected regulated market.
4. To study the role of Agricultural Market Committee in the Kolhapur Regulated Market.

Hypothesis

1. Jaggery making activity is the prominent activity in the study area. Farmers are working under pull factors.

2. The returns to the jaggery producers and middlemen are reasonable.

3. The marketing of jaggery is efficient.

Research Methodology

Selection of Area and Sampling Size:

Kolhapur is the main market for jaggery in the country as it ranks first in qualitative terms and second in terms of quantity after Muzaffarnagar.

There were about 538 villages in the entire Kolhapur district consisting of about 12 talukas. In karveer taluka alone there are about 70 villages followed by Hatkanangle and kagal talukas with 65 and 67 villages respectively. Since the majority share of sugarcane and jaggery was from karveer taluka, majority of jaggery producers were selected from the same area. Few producers were also selected from neighbouring talukas like kagal, Panhala, Hatkanangle, etc.

In the selection of villages, care had been taken to give representation to their geographical distribution in the districts. Eight villages were selected. They were Ambewadi, Chikali, Phulewadi, Kagal, Kerle, Warnanagar, Wadange and Waghav. As the numbers of jaggery producers in these areas were running into

thousands, it was neither possible nor feasible to conduct a census study. A percentage representation becomes a herculean task to an individual researcher; therefore, a purposive sample of 30 jaggery producers of each village was selected as the sample size, which comes to 240. Simple random sampling technique was used. Utmost care was taken to distribute the sample.

The middlemen (commission agents and traders) were considered to be smaller in size and therefore, a census study was made selecting 10 per cent of jaggery middlemen in the market. 16 middlemen in Kolhapur were selected for study.

Period of the study

Both Primary data and Secondary data were collected for study. Primary data was collected by preparing two comprehensive questionnaires administering to the select jaggery producers and the middlemen in the jaggery market areas under study for one year i.e., 2010-2012 as base year.

With a view to show the trends in jaggery marketing, jaggery arrivals, principal notified commodities in the regulated market, number of intermediaries in the market, etc. Secondary data was collected for ten years (1997-98 to 2007-08).

Jaggery profile of Kolhapur

The District of Kolhapur lies between 15'to 17' North latitude and 73'to 74' East longitude. It comprises an area of 3,188.4 square miles. The district had a total forest area of 1, 48,252 hectares of land, comprising 19.13 per cent of the total area. Most of the villages in the district were electrified.

Population

According to 2001 census, the total population of the district was 2,9,74,352. The distribution of population amongst rural and urban area was 26.4 and 73.6 per cent. This signified that the district was dominated by rural population.

Occupational structure

The district is predominant in agriculture. The soil of Kolhapur is generally fertile. About 7, 74,977 hectares of land was available for agriculture. About 44.62

¹ Candiff E. W. and still, R. S. Basic marketing concept, decision and strategies prentice hall of India private Ltd, New Delhi, 1972 p.p. 273 – 274

per cent of the total population in the district was engaged in agriculture. Out of total workers in the district, 39.23 per cent workers were cultivators. The agricultural labourers accounted for 14.91 per cent to total workers in the district. The population engaged in cottage and household industries, trade and commerce, mining and transport, services, etc, was negligible.

Rainfall

In Kolhapur district, rainfall is generally between June to September from south-west and south-east monsoon. The western zone suffered from excessive rainfall, heavy erosion and poor quality of soil but the remaining parts of the districts was likely to have fertile soil, plain region and a well-developed drainage system. Since the natural conditions were favourable for the growth of sugarcane, the uneven topography did not affect the production of sugar and jaggery in the district.

Production and productivity trends of sugarcane in India

Among major sugarcane growing countries in the world, India, the native of sugarcane, stands second in the cane production and contributes more than 20 per cent of the world's sugar output. Although a large area is under production of this crop, the productivity in general is quite low. It occupies the ninth position in the world map.

After textiles, sugar Industry occupies the second position in India. Sugarcane production has steadily increased because of availability of high yielding hybrids, increase in irrigation facilities, better fertilisers and improvement in ratoon management. The experiments conducted reveals that the yields obtained in the all India sugarcane crop competition have been still higher. This shows that there is considerable untapped potential even at the current level of advancement and technology. Thus, it gives scope for further research to strengthen and boost up the productivity of sugarcane.

Table 1 shows the area, production and productivity trends of sugarcane in India in the post-independence period.

out on the basis of production & area figures taken in '000 units.

Source: Cooperative Sugar

* Advance Estimates as on 04.04.2007

Note: The yield rates given above have been worked

Important aspects of jaggery marketing

Jaggery moulds or lumps are brought to the market by the jaggery producers or farmers. Middlemen or commission agents rarely visit the villages to buy jaggery. They are allotted shops and godowns by the market committee on rental basis.

Packaging

Packing of jaggery is not actually done by the jaggery producers. It is only covered by gunny cloth or paper and lumps are brought to the market place from the farm of jaggery making unit. Actual packaging of jaggery takes place only after it is sold to the trader. Hammals (unskilled labour) are involved in packaging of jaggery lumps. Also women workers are engaged in packaging.

In Kolhapur market, jaggery was packed using Hessian cloth, butter paper or polythene to wrap bucket shaped jaggery lumps of 50, 30, 20, and 10 kg. Modak shaped jaggery was covered in butter paper or white paper with attractive design and details printed on it.

Storage

The production of jaggery is seasonal in nature and its consumption or demand is throughout the year. Therefore, jaggery has to be stored appropriately during the year. In India, about three million tonnes of jaggery is stored generally, for consumption purposes, throughout the year. Out of this, two million tonnes of jaggery is stored at the domestic level by big organised agents and traders. According to the estimates, about 10 per cent loss takes place in the quality and quantity of jaggery especially during the monsoon². Therefore, care should be taken to keep it away from moisture and air.

In Kolhapur, gur was stored as per the modern methods by the traders and organised agencies. Hessian cloth and polythene sheets were used for bucket shaped jaggery lumps which were sealed or stitched by the skilled labour. Also printed earthen pots and gur drying cum storage bins were used which was proved to be more useful than unprinted earthen pots and polythene bags of varying quality. Thus, jaggery stored by this method had less reduction in sucrose and less darkening of colour. Thus, pot jaggery storage proved better for maintaining the sucrose content in storage compared to other

shapes of jaggery in the form of bucket shaped rectangular blocks and balls

Finance

Finance is the most significant part of the entire business. It is the engine for the growth of business. It is required at every stage of business. In context of jaggery, finance is required from the stage of harvesting of cane up to transporting jaggery to the market place. Finance influences significantly in the marketing activity³.

In all the markets under study, it had been observed that basically, the jaggery producers depend for finance from commission agents in the regulated market dealing with jaggery. This is because commercial banks and co-operative credit societies lend financial help but on a limited scale and at a high interest rate of 12 to 20 percent per annum.

Middlemen in the regulated market usually, borrow from commercial banks and also tap funds from co-traders, partners and other money lenders. Commission agents provide finance to the jaggery producers on the pre-condition that farmers sell jaggery through them.

Market Risk

Marketing risk is defined as the danger of loss from unforeseeable circumstances in future⁴. In the context of jaggery marketing, risks are involved from the stage of making jaggery, till delivering into the market. Even after reaching the market place, the risk are involved such as theft, fire, destruction, deterioration in the quality loss in storage and transportation, on the losses due to price fluctuations, competition etc. on the part of traders in the market. Thus, the risk is to be borne by the producer and the middlemen at different stages of marketing of jaggery. There is no protection provided by market yard to the goods against rains, sun heat, winds etc. Traders/merchants are bearing the risk of deterioration in weight, and quality of the product if stored for a long time, loss during transportation etc. Middlemen bear higher risk on account of price fluctuations. However, some risk can be reduced by insurance coverage and some by proper planning monitoring on the part of middlemen and traders, Hedging and forward trading on the important methods to overcome the above mentioned risks. Forward trading is trading in future or it is

² Bengali Babu, and Singh, G.B. 'jaggery and khandsari industry – present status and Research and Development strategies for 2000 A.D., op – cit p. 7

on agreement between two parties who agree to sell and deliver and other who agrees to purchase and receive a certain kind of quality of commodity at same specified future date and time, at a specified price and according to the conditions of trading prescribed by the organized producer or commodity exchanges.

Market Information

Market information is a pre-requisite for the consumers, producers as well as for the middlemen and merchants to develop the business. In context of jaggery, appropriate information is not available to the farmers and jaggery producers in villages. Whatever information is made available through research stations or markets is not followed entirely. The producers rely on commission agents or merchants for information. Market committees give low priority in collection and dissemination of market information. The government should initiate proper steps to provide market information to all the marketing channels involved in marketing of jaggery at the right time. This can be achieved with help of association and agencies running through the market committees in the regulated markets.

MARKETING OF JAGGERY :

Marketing is one of the important activity in the production process which facilitates the movement of goods from site of production to ultimate consumer through various channels and by different intermediaries within the minimum period. Marketing involves various services like grading, packing and transportation etc.

The most important two marketing channels were observed in the sale of Jaggery viz.

Channel - I :

Producer Commission Agent or Wholesaler or Retailer or Consumer.

Channel - II :

Producer or Co-operative Sangh or Wholesaler or Retailer or Consumer. The producer's share in consumer's rupee and channelwise marketing efficiency index was Highest in Channel II. It is said, "Indian farmers is a good producer but bad businessman." For better and efficient marketing, producer must know the different market places, the arrival pattern and nature of price

fluctuations in the markets, seasonal variation in the demand for produce. If any of these activities are not performed efficiently, it results into low returns to the producers even though they have produced good quality produce. Therefore, profitability of enterprise depends upon the efficient marketing.

New Trends In Jaggery Market :

In order to increase the external and internal demand for Jaggery. Jaggery producers are using new techniques of products manufacturing they are product mix, product flexibility of product intelligency. Jaggery is of two types organic Jaggery and inorganic Jaggery.

In view of constantly growing market, it should not be difficult for a new entrant to enter and capture the market.

Economic profile of jaggery producers in Kolhapur

Agriculture was the main occupation of all the respondents in the district. Apart from jaggery business, respondents derived part of their income from other activities related to agriculture, non-agriculture activities, such as dairy, business, employment in other sectors, etc. was also taken up by the respondents to supplement their income. Therefore, an attempt was made to segregate the source-wise incomes of the respondents.

Primary source of income

About 150 respondents of the total earned less than Rs. 30,000/- each. The average income of respondents stood at Rs. 25334/- per annum. However, the average earnings of the respondents were higher in Ambewadi and Phulewadi villages. The average earnings of the respondents in Kerle and Chikali villages were low.

Secondary Source of Income

As mentioned earlier, the main or primary source of income derived from jaggery production was low. Therefore, farmers or jaggery producers had to rely on the next best alternative source of income to supplement their families.

In Kolhapur, the next best source of income was considered to be dairy business. As the next house of all the houses in the village, people owned or possessed one or two or more cattle that give milk. This business was carried by the household sector on a large scale.

³ Memoria, C.B. and Joshi, R.L. Principle and Practice of Marketing in India, Kitab Mahal, Allahabad 1984, p. 634

⁴I bid, p. 636

People engaged in other allied agricultural activities were found to be more in the some villages i.e. Ambewadi and Warnanagar as they were close to the river and land was wet and fertile. Therefore, other crops were grown and activities related to agriculture were more possible. However, the average income of the respondents belonging to Ambewadi, Warnanagar, Phulewadi and Wadange villages was more than the rest of the villages. The overall average income was higher at Rs. 6931.2/- in dairy business.

Household Expenditure

The household expenditure can be taken as a measure of their standard of living, while collecting data on their incomes both from primary and secondary sources. A brief review of their household expenditure was also taken to understand their further investment in jaggery business. Also expenditure gives a clear picture of their income. The average household expenditure of the total respondents was 18104/- per annum. The per capita household expenditure can be collected by dividing the average household expenditure by the average strength of the family members.

The respondents revealed that major portion of about 40 per cent of the expenditure was incurred on food especially, rice followed by clothing, medical and recreation. Recreation mainly relates to alcohol consumption. Alcohol was easily produced and sold in the markets of the district. A majority of jaggery producers fall prey to cheap alcohol every year. The expenditure on luxury item was almost absent. It was only possible by big farmers with large size of land ownership.

Landholdings

There were basically two types of land in the selected area understudy, one was wet land and another was dry land, wet land was owned and also had tenancy whereas, dry land was just owned and did not have any tenants for it. Villages in Kolhapur district mostly had wet land due to rivers surrounded by it that is Krishna and Godavari. Most of the jaggery producers possessed wet land. About 28 per cent of the respondents had also taken wet land on lease basis for this purpose. However, an overwhelming majority of the respondents possessed wet land and this land holding was more or less evenly

distributed. But in case of dry land holding, it was noticed that about three-fourth of the respondents did not possess dry land. Those who possessed dry land had very small size of land holdings of about one or two acres.

Utilisation of Land

It is important to know the extent of land utilised for sugarcane production and for the production of the other crops. In area under study, besides sugarcane, paddy and other crops were grown. Other crops basically, included jawar, maize, wheat, rice, millets, oil seeds, coconut, chilies, grain, sesames, vegetables, fruits, pulses, etc. As principal crop all the respondents invariably grew sugarcane.

It revealed the fact that more than 40 per cent of respondents that is 120 also grew paddy in an average of 0.95 acreage, whereas, the other crops were grown by 64 respondents in an average of 0.45 acreage. To maintain soil fertility and follow crop rotation programme. Paddy and other crops were grown as an alternative for sugarcane in this area. The land utilised for sugarcane varied from 2.0 acres to 2.7 acres

Quantity of sugarcane produced

The review of the quantity of sugarcane produced by the select jaggery producers in Kolhapur during 2007–08 was taken. It was observed than on an average, each respondent had produced about 81.25 tonnes of sugarcane. The average production of sugarcane was comparatively more in Phulewadi, Chikali and Ambewadi villages at about 98.5, 97.5 and 94.5 tonnes respectively. But, it was low in Waghawe, Kagal and Wadange villages with 48.5, 73.5 and 74.5 tonnes respectively. Further, the study revealed that the quantity of sugarcane produced was almost proportional to the size of the land utilised for this purpose.

Value of Sugarcane produced

The monetary value of sugarcane produced was fairly distributed between the range of below Rs. 10,000/- to above Rs. 50,000/-. This distribution was similarly to the quantity of sugarcane produced in all the select market areas.

The average value of sugarcane produced during 2007-08 was Rs. 26450/- . However, it varied between Rs. 20500/- to 31500/- in all villages.

Cultivation of sugarcane

Sugarcane is a commercial crop. It requires huge amount of capital investment compared to other crops grown in these regions. The average investment of respondents was found to be Rs. 93,000/- per acre. The average capital invested by the respondents varied widely through the villages selected. The minimum was in Kerle with Rs.62,000/- per acre to a maximum in Ambewadi with Rs. 1,11000/- per acre. The differences in investment can be due to various reasons like differences in the quality of soil under sugarcane, variation in the case of agricultural tools and equipments, differences in fertilisers and pesticides, etc. Out of the total capital invested in sugarcane and jaggery, about 91 per cent was borrowed capital and remaining was owned capital.

Sources of finance

Finance is a pre-requisite for the farmers for carrying cultivation practice. It is basically due to the fact that Indian peasants live under poverty and most of them are unable to raise enough funds for cultivation of crops.

It reveals the fact that majority of respondents (52 per cent) were dependent on borrowed funds. About six per cent of the total could raise their own funds without borrowing from other sources. The remaining 42 per cent had access to borrowed sources, in addition to the investment of their own funds. Thus, it discloses the fact that majority of the respondents were dependent on external lending sources to raise money for sugarcane cultivation. These external sources were banks, commission agents and money lenders. The commission agents in Kolhapur market yard extended loans to farmers to promote sale of jaggery, but only through them. The money lenders on the other hand, charged high interest rates on loans provided by them. The banks provided crop loans but required lot of paper work and documentation on the part of the farmer. Therefore, he gives up the hope of obtaining any financial help from the banks. It should also be noted that none of the respondents of Waghav village had invested their own funds in sugarcane cultivation. All of them were dependent on borrowed funds only.

There was no answer or negative answer provided

by the respondents to the question whether the sugar factories provided any financial help for sugarcane cultivation. Thus, the fact remained that sugar factories would like to increase sugar production out of sugarcane cultivation rather than jaggery. Thus, finding showed that commission agents hold a pivotal role on providing financial assistance to jaggery producers for sugarcane cultivation and jaggery production.

Cost of sugarcane cultivation

An attempt was made to assess the cost of sugarcane cultivation in the study area. Therefore, item-wise average cost of sugarcane cultivation per acre was calculated during 2007-08. The table 2 reveals that cost of seeds preceded all items of expenditure with a proportion of more than one-third of the total average cost of Rs.44,174/-. It was observed that seeds were the prime factors for good quality jaggery of Kolhapur. It could be observed that cost factor of seeds was dominant in all villages. The average cost of seeds in villages like Ambewadi, Phulewadi and Warnanagar appeared to be almost identical. In rest of the villages the average cost varied from Rs.13000/- to Rs. 13, 800/-. The second major item was rent to land. Rent was dominant factor in villages like Warnanagar, kerle and Chikali. The village-wise rents varied between Rs.8000/- to Rs. 13,000/- . In case of land owners, the rent component was taken into consideration by obtaining the information of prevailing land rent in the neighbourhood. The next major cost was expenditure on fertilisers. The total average cost of fertilisers stood at Rs.7775/-. It varied from Rs.7500/- (Phulewadi, Ambewadi and Waghav) to Rs.8200/- (Warnanagar).

Another major cost component was the wages paid to the labourers. Labour activities included preparation of bed, the seeding, the watering, removal of seeds, harvesting etc. The cost of labour varied between Rs.5650/- (Waghav) to Rs.7900/- (Chikali and Kagal).

Considering the wage component, it appeared that it was more or less equal in all sample villages. Besides field labourers, the jaggery producers themselves worked in the fields along with their family members.

Other cost factors like pesticides, land taxes, water cess and electricity and watering charges constituted

about 11 per cent altogether. Due to lack of irrigation facilities, families had to incur expenditure on electricity and water charges to the owners of tube or bore wells. These costs varied from Rs.2220/- (Kerle) Rs.2600/- (Ambewadi and Phulewadi). The average cost for pesticides stood at Rs.1919/- for land taxes water cess and other taxes Rs.555, electricity and watering charges had cost Rs.2425/-.

Cost of jaggery production

As mentioned earlier, jaggery making involves various steps like extraction of sugarcane juice, clarification, concentration etc. At all the stages of jaggery making process, producers have to incur many costs.

Item-wise expenditure incurred on jaggery production in Kolhapur district is represented in Table 3. The main component for cost is sugarcane in jaggery production. It constituted more than 50 per cent of the total average cost. Wages constituted about 15 percent followed by ingredients of cost about 13 per cent and crushing charges about 11 per cent. The average cost per quintal of jaggery was highest in Warnanagar, followed by Ambewadi and Kagal. It may be due to higher cost incurred on raw material. Similarly, it was lowest in Waghav followed by Kerle and Wadange. This was due to low cost of raw material. The expenditure on fuel was almost same in all sample villages (Rs.100/-). The crushing charges were also almost close ranging between Rs.100/- to Rs.200/- for crushing one tonne of sugarcane to produce one quintal of jaggery. The average labour charges to produce one quintal of jaggery was Rs.188/-. It varied between Rs.100/- to Rs.300/- in all sample villages. The reason was the difference in wage rates in the sample villages. The average cost of ingredients was Rs.168/- to produce one quintal of jaggery.

Sale of jaggery

It is the most important aspect in marketing of jaggery. There were many factors influencing the sale of jaggery by producers like, cash requirements of the producers, price fluctuations in the market, transport facility, storage facility available etc. Generally, jaggery producers were intended to sell after meeting their consumption needs. They also sometimes paid in end to the labourer, artisans and landlord. The remaining quantity

is brought to the market for sale.

Time of sale

Jaggery is usually taken immediately to the market for sale through commission agents.

Storage

Storage of jaggery was done due to various factors like, if market conditions were unfavourable, some producers stored it for speculative purposes (to obtain high price), problem of transport, etc. Storage of jaggery was done either in farm, houses or in rented godowns. On an average producers were storing jaggery for three weeks after production, though, jaggery producers of phulewadi had stored the produce for 23 days on an average. It was followed by respondents in waghav storing for 22 days and Wadange for 21 days. There were no respondents storing jaggery in Ambewadi, Chikali, Kagal and Warnanagar.

Grading

The respondents in all the three jaggery markets had reported that they didn't grade jaggery before its sale. There was no grading system and producers didn't feel the need to grade their jaggery after production. It was immediately sent to the market for sale through commission agents. There was a common practice in all the three markets that commission agents or traders grade the products. Grading was done on the basis of quality, colour of texture, hardness of jaggery, lumps etc. The quality of jaggery remained same as it was taken to the market immediately after its production. Therefore, producers had enough time to estimate the quality or grade of their product in the market. Grading was not found necessary and was not practiced by the producers in all the three market areas.

The average price received by respondents was Rs.1137/- per quintal of jaggery. As many as 76 respondents (31.67 per cent) received an average price ranging between Rs.1201/- to Rs.1400/-. In kerle, Phulewadi and Waghav where there was practice of selling jaggery to local traders in the villages, the average price was higher than the total average price particularly, in Kerle

Market information

The farmers generally produce crops which are

likely to give them more returns. The decision in which crop to be grown in the season largely depends upon the market information available to the farmers. There are various sources of getting market information to the farmers they were- commission agents, traders co-producers, village heads, Agricultural Market Committee, agricultural research stations media and information was obtained through personal visits to the market. This information was obtained through various sources of varying degrees.

To whom the respondents sell

The jaggery produced in all the three markets under study was either sold at the regulated market or in village itself or sold at both the places.

Reasons for sale of jaggery in the Regulated Market

It was observed that selling jaggery in regulated market was considered to be the traditional practice and therefore, it was the prime cause for preferring regulated market. The second important reason for selling

Table 3
Item-wise average cost per quintal of jaggery produced in 2009-2010 (Kolhapur)

Item	Village and cost (In Rupees)								
	Ambewadi	Chikali	Kagal	Kerle	Phulewadi	Warnanagar	Wadange	Waghave	Average
Sugarcane	747	731	701	721	691	757	724	677	718
(Raw material)	(53.00)	(53.00)	(53.00)	(53.00)	(53.00)	(53.00)	(55.00)	(55.00)	(53.00)
Crushing charges	150	159	155	150	150	174	137	138	151
	(11.00)	(12.00)	(12.00)	(11.00)	(12.00)	(12.00)	(10.00)	(11.00)	(11.00)
Wages	216	206	199	204	189	221	184	177	199
	(15.00)	(15.00)	(15.00)	(15.00)	(15.00)	(15.00)	(14.00)	(14.00)	(15.00)
Ingredients	185	178	176	179	173	188	163	165	176
	(13.00)	(13.00)	(13.00)	(13.00)	(13.00)	(13.00)	(12.00)	(13.00)	(13.00)
Fuel	100	100	100	100	100	100	100	100	100
	(7.00)	(7.00)	(8.00)	(7.00)	(8.00)	(7.00)	(8.00)	(8.00)	(7.00)
Total	1398	1374	1331	1354	1303	1440	1308	1257	1344
	(103.00)	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)

Note: 1) Figures in parentheses indicate percentages to the respective totals

2) The bagasse which comes out from crushing of sugarcane was used as fuel. So, its cost was minimum.

jaggery in regulated market was debt obligation. It was true as mentioned earlier, jaggery commission agents had been a major source of finance to the producers. The other reasons behind preference to sell jaggery in regulated market were as follows - attractive price for the jaggery in the market, previous acquaintance, and immediate cash payment was possible once jaggery was sold and supply of other inputs provided by the jaggery commission agents to the producers in the market.

Reasons for sale of jaggery in villages

The main reason lies behind this was attractive price offered by the local traders. Another important reason was to encash jaggery produce immediately due to urgent need of cash money for domestic or agricultural purpose or both. Another reason attached to this was saving transportation cost to some extent. As transportation charges were borne by the producers and not by the middlemen. Another reason was debt obligation with the local traders and improper response from the market commission agents.

As information given by the respondents of Kerle and Phulewadi, some quantity of jaggery was sold to the local traders and traders belonging to nearby tribal areas. At those places jaggery was used for preparation of alcohol and these traders offered high price to the producers compared to that offered in the regulated market. As such the fact remained that alcohol consumption was very high in the entire district and therefore, these traders made good amount of money by preparing alcohol through low quality of jaggery. This type of black jaggery included (IV grade jaggery) hazardous chemicals and other ingredients used to increase jaggery weight and hardness.

Transportation

It reveals that vans/truck were the major means of transport on around 78 per cent of jaggery was moved by vans/trucks and 13 per cent by rickshaws (open tractor rickshaws). A negligible quantity of 8.75 per cent was also moved by bullock carts. Transport costs incurred by the respondents varied from Rs.40/- to Rs.60/- per quintal of jaggery. The transportation charges were mostly dependent on the distance from the village to the market yard.

Difficulties in the Regulated Market

The respondents had to face many difficulties in selling their produce through middlemen in the market. The common difficulties encountered by them were that they felt that market did not fascinate them with remunerative return, though the price was favourable. Selling jaggery in the regulated market includes various overheads such as weightment charges, hamali, middleman's commission and other charges which affected the average rate of return on jaggery around the year 2002-03. There was problem of labour strike in the market faced by all commission agents, traders and jaggery producers involved in the business of jaggery. The labourers including hammals, weight men and others demanded hike in their wages which was not recognised by the APMC, Kolhapur and then by the traders and commission agents in the market. Therefore, other workers outside the market were hired temporarily to solve the problem. This helped in settling the wages of the existing workers with a minimal hike of 5 per cent in the market.

All these affected sale of jaggery in the market for that year. Further auction system was generally, open auction but it was conducted on the same day of jaggery delivered to the market even if there were few bidders. There was also presence of malpractices reported by respondents to a large extent in the regulated market. The malpractices were in the form of under weightment, price adjustment, price rebates; wrong calculation of the sale proceeds etc. This was usually done by the jaggery commission agents in the market. Another major difficulty encountered by the respondents in the market was competition. It was due to huge arrival in the market and competition of quantity as well as quality, Kolhapur jaggery has more competitive quality all over the country. To maintain its standards, jaggery commission agents were pressed with making immediate sale of good quality jaggery by the producers.

Although producers were literate and experienced in cultivation activities and jaggery making but, they were not much aware about the market information or trends. The jaggery commission agents took undue advantage of the ignorant farmers in the market. They were

Note: Figures to the parentheses indicate percentages to the grand total

exploited in the terms of charging more commission for the services rendered in the regulated market. The other difficulties reported by the respondents were delay in payment by the commission agents, bad debts and ill-treatment by the producer's agents and lower in Phulewadi and Waghav. The average price received by the respondents in Kerle was Rs.1114/- whereby in Phulewadi it was Rs.1094/- and Waghav it was Rs.1047/-. It was interesting to note that respondents in all the other sample villages where the entire produce was sold in the regulated market received more than the total average price. It varied between Rs.1047/- to Rs.1227/- per quintal. The respondents of Waghav had found to receive the lowest average price of Rs.1047/-. It was

quite appreciable that one respondent from Kerle received above Rs.1600/- per one quintal of jaggery. Same was sold by one respondent in Ambewadi, one in Chikali, two in Kagal and one in Warnanagar. However, 25 respondents (10 per cent) had received a very low price i.e. below

Rs.800/-. The reason for this may be inferior quality of jaggery and delay in time of sale. 4 respondents in Kerle, 3 in Phulewadi and 5 in Waghav received price below Rs.800/-. It was also observed that the maximum price received in Warnanagar was between Rs.1201/- to Rs.1400/- and in Wadange it was between Rs.801/- to Rs.1000/-

Profile of the middlemen

The middlemen play a crucial role in jaggery marketing. Middlemen included jaggery commission agents, and traders or dealers. There were about 160 firms in the jaggery market of Kolhapur which acted as middlemen in the process. Out of the total, 60 were commission agents and 100 were traders.

The commission agents in all the three markets extended their help (financial assistance) to farmers to adopt different promotional measures to have their continued patronage. The representative of the commission agent sold jaggery on behalf of the producer in open auction in the market. After the permissible deductions like commission charges, weightment charges, grading charges, etc., payment of sale proceeds was done to the producers by the commission agents. In case of Anakapalle market, the dealers' agents acted on behalf of their non-resident dealers or principals. They purchased jaggery as per their dealers' instructions and requirements and dispatched jaggery lumps to them as per the availability of transportation means (railways/roadways). Traders in all the three markets purchased jaggery on their own behalf and sold it on their own within and outside their state.

In the distribution channel producers' agents help the producers and traders help the wholesalers or retailers in buying jaggery. It was observed that only traders buy and also accept the ownership or title to the goods. An attempt was made to know the volume of turnover made by these middlemen in the regulated market.

The producers' agents had a business turnover of 1,26,641 tonnes. On average, each agent had 21,107 tonnes of turnover. In the form of value it was Rs.8,443/- lakh. In other words, on an average, each agent had a turnover of Rs.1407.1/- lakhs. Traders were very active there and had a turnover of 96,884 tonnes worth Rs.9,688/- lakhs. On an average, each trader had a turnover of 9688 tonnes worth Rs.646/- lakhs during the study period. Thus, it can be inferred from the above analysis that both the types of middlemen had higher role in terms of handling jaggery business. But producers' agents or jaggery commission agents had relatively greater role in handling jaggery in the market. That was

mainly because the number of producers' agent was relatively low resulting into higher average. The numbers of traders were high which made the average low.

From the above analysis it can be concluded that the role of both the types of middlemen is inevitable out of them, producers' agents had a higher role in terms of jaggery handling. It was due to relatively more number of agents present in the market compared to the traders.

Selling activity

The jaggery purchased in the market by the buyers was sold at various places in all over the country. In Kolhapur regulated market, producer's agents sold 100 per cent of the produce to the traders present in the market. In turn traders made 60 per cent sales to the dealers belonging to other states. While the rest 20 per cent within the state 10 per cent to the local dealers and another 10 per cent to other countries. As mentioned earlier no grace period in payment was given to the traders in the market. They had to make payments to the commission agents within six days after transaction (purchase). The traders sold jaggery to the dealer within the state or outside on credit basis. It was given up to one month or more depending upon the relationship of the traders with other dealers outside the market. All the charges levied by the market committee to the trader for purchase of jaggery were included in the bills issued to the purchaser (dealer) of jaggery outside the market.

Jaggery marketing largely depends on the method of business adopted by the middlemen for business promotion. Out of different methods adopted to promote sales. The producers' agents, mostly gave extension of credit facility, preferred personal selling by inviting the buyers to the auction and offering good treatment (provide shanks, tea, coffee etc). Also the jaggery commission agents helped the traders in grading the product and buying the right quality of product required by them. Besides, these other methods adopted were showing or proving honesty in trade, giving certain amount of price rebate, maintaining large quantities, etc.

The traders also adopted some promotional measures to increase their business by indulging into personal selling. The other method adopted was giving

prompt delivery. It was possible due to good relation maintained with transport authorities, irrespective of the fluctuations in the market, etc. In addition to that, traders were also offered price rebate to other dealers, kept more varieties or grades of jaggery and maintained large quantities with them. Other factors like giving more credit facilities, assisting in grading and marketing and showing honesty in trade, helped a lot in promoting business.

Profits Earned

In Kolhapur market, all the middlemen had reported that they derived profits in jaggery business especially, during the last decade. It can be observed from the table that the average profit of the middlemen was Rs.57,19,800/-. But the average profit earned by each category was different. The jaggery commission agents had got an average profit of Rs.64,01,000/- which was more than the total average whereas, the traders got an average profit of Rs.53,11,200/- per annum. It indicated that profitability was higher in case of producers' agents than traders. It was mainly due to concentration of business activity with less number of jaggery commission agents (6) compared to that of large number of traders (10) in the market.

Role of Agricultural Market Committee

An attempt was made to appraise the performance of the Regulated market, Kolhapur. It was studied for the purpose to examine growth, trends in arrivals of jaggery, trends in financial position and problems in the working of Agricultural market committee.

Kolhapur Regulated Market (APMC) is the second largest jaggery market for jaggery in the country.

Kolhapur jaggery is famous all over the country and abroad. It's high quality and standard makes it possible for exports to other countries.

Agricultural Market Committee, Kolhapur

A.P.M.C. Kolhapur was established in the year 1945, with the efforts of late Chhatrapati Shahu Maharaj of Kolhapur. The market yard covered nearly 120 acres of land. The layout of the market yard was well planned and systematically designed. There were in all 355 plots in the commission agents' area and 98 plots in the purchasers' area. The office building of the market committee was centrally located. The market committee was provided almost all the amenities in the new market yard. The number of such amenities was about 25. These were provided according to Act. Besides these, there were eight amenities provided by the market committee on its own, viz., petrol pump, city bus service terminal, a police station, seed godowns, a special railway siding, a post office and public telephone booths.

Administration of the market

The 16 elected or nominated members of the market committee constituted the board of directors, which was headed by the chairman or the vice chairman elected from agriculturist members. The chairman and vice chairman were the controlling and supervising authorities of the market committee. The secretary was administrative head of the market committee and yields many statutory powers given by him by the marketing Act.

Staff pattern

The chairman was the chief controlling authority of the Market Committee. The vice chairman assisted the role of the chairman and also operated in his absence.

The quorum for the meeting of the market committee met at least quarterly to discuss various issues relating to the market regulation, now the meetings were held almost every month.

Storage and warehousing facilities

The Agricultural Market Committee, Kolhapur, had enough storage and warehousing facilities. There were many shops and godowns available on rent to the commission agents and traders in the market (only licenced holder commission agents and traders). However, cold storages and private godowns were available to the traders in the hinterland of APMC, Kolhapur.

Grading and weightment

The Agricultural Market Committee was responsible to provide the facilities of grading and weightment in the market yard. This was to help the poor farmers from any exploitation or cheating by the middlemen in the market. This enabled farmers to fetch remunerative price for their produce. The appointed supervisor in the market took up the job of grading of agricultural commodities. He mainly performed the role of grading of jaggery in the market.

The weightment process in the regulated market was governed by the standards prescribed by the State Government relating to Agricultural Commodities Act. In Kolhapur market, weightment was done within the premises of the market yard. The weightment job was done by the licenced weightmen. They had to pay the licence fee as prescribed by the market committee from time to time. The weightment of agricultural produce was done simultaneously, at different shops in the market yard as soon as the auction was completed.

Market Functionaries

Several market functionaries performed their respective roles in the Regulated Market. They included commission agents, traders, weightmen and hammals. They vary in terms of their business turnover which goes beyond Rs. 50/- lakh rupees per year. Table 6 represents the details of the number of market functionaries registered with the APMC Kolhapur, during the period 2002-03 to 2009-10. Out of the total functionaries, commission agents constituted the greater proportion to the total in all the years.

Market charges and licence fees

Market committee is a social institution. Market committee was allowed to levy 'market fee' on the basis of sale transactions and to collect the 'licence fee' from market functionaries as provided in the Act. The market fee and licence fee were two basic sources of income of the Kolhapur market committee. Other sources of income were rent, interest on deposits, grant-in-aid from the government, etc.

Market fee

The market fee was levied on 'advalorem' basis value of arrivals. The market committee collects market fee from purchasers as below:-

Jaggery/groundnuts - Rs.100 worth produce - 0.85 paise
Food grains - Rs. 100 worth produce - 0.75 paise
(Cattle/ sheep and goat) - Rs. 100 worth produce - Re. 1.00
Fruits and vegetables - Rs. 100 worth produce - 0.85 paise

Total income of market fee was Rs.1,39,07,012/- annually. Besides this, 0.5 per cent was also collected by the committee towards supervision cost on behalf of the state government.

Licence fee

The second important source of income of the market committee was licence fee which was collected from every functionary in the market. The APMC, Kolhapur, collected the licence fee from the functionaries registered with the Agricultural Market Committee from time to time. The collected amount was thus, utilised to meet the cost of supervision by the market committee over them. The fee charged for other transactions were also prescribed by APMC, Kolhapur.

Expenditure

There was three basic heads of expenditure, viz., salary, capital expenditure and miscellaneous expenditure.

Method of sale

The prime job of the Agricultural Market Committee was to ensure the sale of agricultural produce brought by the jaggery producers under competitive conditions. The market committee takes care to avoid any sort of

exploitation of the farmers by the intermediaries. The market committee bye-laws specified the method of sale to be adopted. That was the sale of all the notified agricultural produce, live stock or produce of live stock brought into the market for sale shall be conducted by the market committee, by open auction system.

It was gratifying to note that all the commodities were purchased and sold by the open auction method. At the time of bidding one or two employees of the market committee moved along, accompanying the traders from one place to another supervising and noting the entries of produce, grade, price, name of the buyer, commission agents, sellers, etc. The market committee had realized that the last few bidders never fetched competitive price therefore, the committee had introduced rotation system. The auction was headed between 9.00am to 2pm each day except Sunday which was weekly holiday for that market.

Market information

In order to ensure better and efficient marketing, supply of market information to buyers and sellers was essential. At Kolhapur market yard, day to day information of the arrivals, prices, stocks, etc. of the notified commodities were displayed on the notice boards. The market committee also sent daily maximum, minimum and average prices of products to the state Agricultural Department and to directorate of economics and statistics, Ministry of Agricultural, Government of India, New Delhi, for the purpose of record keeping at national level.

Dissemination of market information relating to market arrivals, ruling price, market trends, etc. was an important adjunct in the development of orderly marketing. This type of information was very useful to the farmers as they can take appropriate decisions in the light of adequate and correct information. The market committee provided information relating to the prices, arrivals, trends, etc. to the farmers well in advance through all India radio, local daily newspapers, etc. It also supplied daily information to Delhi, Mumbai and Pune AIR stations. Further the market committee supplied weekly, fortnightly and monthly statistical information to various concerning offices of the state and central government. An information network was estab-

lished by the market committee to supply daily information to the marketing board, Pune through computer system. Besides these, the market committee displayed information on the notice board and made the announcement on the loudspeaker frequently during the business hours. Periodically, pamphlets were published by the committee for propagating the benefits of regulated market to the producer.

Arrivals of notified/regulated commodities

The market committee had regulated 25 commodities more at the end of 1994, these were viz., jaggery, groundnuts (shelled and unshelled), flower, paddy (husked and un husked), bajari, wheat, cotton (ginned and unginned), chillies, turmeric, gram, gramdal, tur, turdal, udid, udidal, moog, moogdal, masur, masurdal, onion, potato, peas, wal, chola, kulthi, cattle's, sheep and goat fruits and vegetables, grass and fodder hider and skins, coriander, garlic, ginger and betel leaves.

A large number of commodities were notified by the agricultural market committee, Kolhapur but, only 12 commodities were being traded on a large scale. An attempt was made to know the volume and value of notified commodities arrived at Shahu market yard. It indicates that on an average, the arrivals of the principal notified commodities into the market ranged between 143278.4 thousand tonnes to 133289.9 thousand tonnes during the decade 1997–98 to 2009–10. It can also be learnt that during all these years, jaggery had emerged as a major commodity traded at this regulated market (APMC, Kolhapur) with the percentage share ranging from 24000 tonnes to 38000 tonnes during last decade. Also other commodities were important for trade in the market like onions, groundnut, chillies, etc. between the years 1997–98 and 2009–10. The quantity of goods arrived in the market declined by 6.97 per cent whereas its value had increased marginally by 19155 per cent.

Notified Area

The notified area of A.P.M.C., Kolhapur was 6 and one-half talukas, viz, Bhudhargad, Karveer, Gaganbavada, Panhala and Radhanagari. One-half (43 villages) of Kagal which comprised 708 villages covered a total population of more than 15 lakhs. Under the jurisdiction of the market committee area, there were

more than 25 co-operative societies, 21 oil mills, 7 sugar factories, 4 weekly markets and 24 weekly general markets

Financial performance

Kolhapur market committee had obtained surplus income over its expenditure almost throughout the decade. The major source of income to the committee in the entire period was from other sources like rent on shops, late fee, interest, sale of forms, licence fee, etc. which altogether accounted for about more than 50 per cent to the total income.

On the other hand, the expenditure of the Agricultural Market Committee included establishment charges, advances and loans, purchase of supplies, contribution to central marketing fund, compensation paid for land acquired for the construction of market yard, etc. The committee undertook repairs and maintenance work and provided other facilities like drinking water, etc. Very less had been spent on creating new amenities in the yard. Though, the market committee provided amenities to the middlemen, it was yet inadequate.

Suggestions and conclusions:

The hypothesis conceived for the present study is found proved with the help of analysis made from the collection of both primary and secondary data. In the case of jaggery producers, there was huge dearth of market information, techniques and quality control. This was attributed to lack of co-ordination and integration

of various marketing activities. Thus, the study concluded that there is an urgent need for improvement in marketing approach of jaggery, i.e. increasing and improving marketing channels in the study area.

Kolhapur jaggery has export potential due to its quality jaggery and the techniques of production adopted, as compared to other jaggery markets in the country. Thus, Kolhapur jaggery needs to raise its export potential by adopting much more new and better techniques in jaggery production and marketing.

The agricultural market committee also needs to shoulder the responsibility with the intermediaries to help farmers to develop jaggery marketing and its industry. Co-operative societies should join hands with the jaggery producers to improve both jaggery production and productivity. Also, loans should be made liberal by the Government banks and even by the jaggery commission agents to help farmers in purchase of better seeds and improve in techniques of jaggery making. The Agricultural research centers should take up the responsibility to educate the farmers through their volunteers regarding farm management or technology, adoption of better seeds, fertilisers, etc. Also awareness is to be brought regarding non-use of hazardous chemicals just for making the product saleable (Since use of chemicals make jaggery lump heavier in weight, bright in its colour, fine texture and making it harder and granular) and have its negative effects on the society at large.

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Amit Kumar Dwivedi An Empirical Study on Gur (Jaggery) Industry

(with special reference to operational efficiency & profitability measurement)

Globalisation & South-South Co-operation

Dr. Roli Raghuvanshi*

Abstract

The rich diversity of the South provides an excellent opportunity for forging mutually beneficial partnerships to work towards economic growth, industrial development and poverty reduction. Since the 1978 Buenos Aires Plan of Action for Promoting and Implementing Technical Cooperation among developing countries, South-South cooperation has been steadily gaining momentum and has shown encouraging trends. South-South cooperation is a methodology of development which facilitates the exchange of knowledge, experience, technology, investment, information and capacity between and among Southern countries through governments, civil society organizations, academic institutions, national institutions and networks to accelerate political, economic, social, cultural, environmental and technical development. This framework is now widely recognized as a key mechanism for the development agenda of countries in the South and is guided by mutual benefit between countries, respect for national sovereignty and ownership, establishment of partnership among equals, non-conditionality in cooperation and non-interference in domestic affairs.

The rapidly expanding connections between these countries are also leading to a more balanced form of globalization. New trade routes are flourishing: countries as diverse as Morocco, South Africa, Thailand, Turkey and VietNam each have substantial export and import relationships with more than 100 economies. New and improved technologies, adapted to local conditions, are boosting people's productivity and enabling production to be shared across borders

This transformation is affecting the dynamics of regional and global relationships. The leading countries of the South played a crucial role in responding to the 2008 financial crisis. Dialogue is intensifying on the appropriate provisioning of global public goods, such as curbing climate change, developing rules for stable financial markets, advancing multilateral trade negotiations and agreeing on mechanisms to finance and produce green technologies. The rise of the South could help break stalemates on some of today's global issues and lead to more development-friendly global agreements.

Innovation and entrepreneurship in the South

In North-South trade, the newly industrializing economies developed capabilities for efficiently manufacturing complex products for developed country markets. But South-South interactions have enabled companies in the South to adapt and innovate in ways that

are more suited to developing countries. This includes new business models whereby companies develop products for a large number of low-income customers, often with low margins. Countries of the South are also natural locations for experimentation in new technologies and products, such as those based on the global system for mobile (GSM) communications standard. Under the 2005 GSM Emerging Markets Initiative, manufacturers slashed the price of mobile handsets by more than half

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and expanded the GSM subscriber base by 100 million connections a year. This in turn stimulated investment: in 2007, mobile operators, including South Africa's MTN and Kuwait's Zain, announced a five-year plan to invest an additional \$50 billion in Sub-Saharan Africa to improve mobile coverage and expand it to 90% of the population.

Indeed, the spectacular increase in phone connectivity in Africa has been driven almost entirely by companies based in India, South Africa and the United Arab Emirates. Mobile phone manufacturers have also re-engineered products for the needs of lower income consumers. For example, in 2004, TI India, a research and development centre of Texas Instruments in Bengaluru, designed a single-chip prototype for use in high-quality, low-cost mobile phones. In 2005, Nokia, in cooperation with TI, began to market the Indian made one-chip handsets in India and Africa, selling more than 20 million units. Single-chip designs have also emerged for other devices, including affordable digital display monitors and medical ultrasound machines. Intel has developed a handheld device for rural banking, and Wipro has marketed a low-power desktop computer for basic Internet connectivity. And in 2008, Tata announced the ultra-low-cost Nano car, exportable in kits for assembly by local technicians.

Technology diffusion through South–South investment is also unleashing entrepreneurial spirit, particularly in Africa. People are often self-organizing, creating buyer–seller relationships and becoming entrepreneurs to fill unmet needs in spontaneously sprouting markets. This is evident in the uses to which

Africans are putting affordable Asian-built mobile phones: cellular banking, for example, is cheaper and easier than opening a bank account; farmers can obtain weather reports and check produce prices; and entrepreneurs can provide business services through mobile phone kiosks. The use of mobile phones in Nigeria has improved the performance of the grain market, and Ugandan farmers are using mobile phones to obtain higher prices for their bananas. These and other transformations multiply the possibilities of what people can do with technology: participating in decisions that af-

fect their lives; gaining quick and low-cost access to knowledge; producing cheaper, often generic medicines, better seeds and new crop

varieties; and generating new employment and export opportunities. These possibilities cut across income classes, reaching down to the grassroots. To respond to the changing needs of middle class consumers, companies doing well in the South tend to be long-term risk-takers and agile in adapting and innovating products for local buyers. Consumers in the South tend to be younger, are often first-time shoppers for modern appliances with distinct in-store habits and are usually more receptive to branding. Companies in emerging market economies have the advantage of different management approaches from those dominant in the North: majority shareholders have greater power and redeploy resources more speedily than those in companies in the North. Some of these developments are based on interactions among research and development institutions, businesses and community stakeholders. In such ways, innovation and its benefits spread, spawning faster change. There is greater appreciation of a broader role for the state in stimulating research and development and in nurturing synergies stemming from cooperation among private, university and public research institutions. For example, many African countries have emulated the early success of Mauritius in attracting East Asian FDI by creating export processing zones. Malaysia's investment promotion policies have also been widely copied.

Increasingly, the most important engine of growth for countries of the South is likely to be their domestic market. The middle class is growing in size and income. By 2030, 80% of the world's middle class is projected to live in the South. Countries in South Asia and East Asia and the Pacific will alone account for 60% of the middle class population and 45% of total consumption expenditure. Another estimate

is that by 2025, a majority of the 1 billion households earning more than \$20,000 a year will live in the South. Since 2008, Chinese, Indian and Turkish apparel firms have shifted production from shrinking global markets to expanding domestic markets. Greater reliance on domestic markets will boost internal dynamism

and contribute to more-inclusive growth. Given current trends, African consumers will continue to benefit from increased imports of affordable products. Flourishing local markets are likely to breed local entrepreneurs and attract more investment in extractive industries as well as in infrastructure, telecommunications, finance, tourism and manufacturing—particularly light manufacturing industries in which African countries have latent comparative advantage. In this scenario, which has already begun to play out in the past decade and in other regions, host economies undergo structural change, and indigenous industry responds to competitive pressure from imports and investment inflows by upgrading production.

New forms of cooperation

Many developing countries are emerging as growth poles and drivers of connectivity and new relationships, opening up opportunities for less developed countries of the South to catch up and leading to a more balanced world. Instead of having a centre of industrialized countries and periphery of less developed countries, there is now a more complex and dynamic environment. Countries of the South are reshaping global rules and practices in trade, finance and intellectual property and establishing new arrangements, institutions and partnerships.

Development assistance

The rise of the South is influencing development cooperation bilaterally, regionally and globally. Bilaterally, countries are innovating through partnerships that bundle investment, trade, technology, concessional finance and technical assistance. Regionally, trade and monetary arrangements are proliferating in all developing regions, and there are pioneering efforts to deliver regional public goods.

Globally, developing countries are participating actively in multilateral forums—the G20, the Bretton Woods institutions and others—and giving impetus to reforms in global rules and practices. A rising number of developing countries provide aid bilaterally and through regional development funds. Often, this involves

entwining conventional development assistance with trade, loans, technology sharing and direct investments that promote economic growth with some degree of self-reliance. Countries of the South provide grant aid on a smaller scale than traditional donors do but also give other forms of assistance, often without explicit conditions on economic policy or approaches to governance. In project-based lending, they may not always have been very transparent, but they do give greater priority to the needs identified by receiving countries, ensuring a high degree of national ownership. Brazil, China and India are important providers of development assistance, which is substantial for countries in Sub-Saharan Africa. Brazil has transplanted its successful school grant programme and its programme for fighting illiteracy to its African partners. In 2011, it had 53 bilateral health agreements with 22 African countries. China has complemented its investment flows and trade arrangements with finance and technical assistance for building hard infrastructure. In July 2012, China pledged to double concessional loans to \$20 billion over the next three years. The Export-Import Bank of India has extended \$2.9 billion in lines of credit to Sub-Saharan African countries and has pledged to provide an additional \$5 billion over the next five years. Between 2001 and 2008, countries and institutions from the South met 47% of official infrastructure financing for Sub-Saharan Africa. The new development partners from the South follow their own model of bilateral cooperation. The scale of their financial assistance, combined with their approach to conditionality, can enhance policy autonomy in less developed countries. Less developed countries can now look to more emerging partners for development support. This expands their choices, as foreign powers compete for influence, access to local consumers and favorable investment terms.

The regional development assistance architecture is also evolving through the regional development banks: the African Development Bank, the Asian Development Bank and the Inter-American Development Bank. In 2009, playing a countercyclical role, the regional development banks together provided 18.4% (\$3.4 billion) of the aid provided by all multilateral institutions, a 42%

increase over 2005. Development assistance from the Arab States has also made important contributions, reaching \$6 billion in 2008. Some of the largest financiers of infrastructure in Sub-Saharan Africa between 2001 and 2008 were regional banks and funds based in Arab States. Development assistance from regional development banks may become more important to low-income countries in the coming years (as may South-South development assistance) if policymakers in wealthy countries curtail aid commitments because of domestic economic and political challenges. Development partners in the South have not sought to engage with or overturn the rules of multilateral development assistance. But they have indirectly introduced competitive pressures for traditional donors and encouraged them to pay greater attention to the needs and concerns of developing countries. In contrast to many traditional donors' focus on social sectors, new partners have in recent years invested heavily in new infrastructure across low-income countries—resulting in, for instance, a 35% improvement in electricity supply, a 10% increase in rail capacity and reduced price of telecommunications services.

Environmental protection

The UN Conference on Sustainable Development in Rio de Janeiro demonstrated the promise of regional arrangements, as governments from the South showed how they are coming together to manage the resources they share. One initiative, negotiated by governments from the Asia-Pacific region, will protect the Coral Triangle, the world's richest coral reef that stretches from Malaysia and Indonesia to the Solomon Islands and provides food and livelihoods to more than 100 million people. In the Congo River Basin, countries are working together against the illegal timber trade to conserve the world's second largest rainforest. At Rio+20, a group of regional development banks announced a \$175 billion initiative to promote public transportation and bicycle lanes in some of the world's largest cities.

The rise of the South is also reflected in an array of bilateral arrangements to tackle climate change. With climate-related natural disasters and rising sea levels

threatening to undermine human development progress, countries recognize that they have little choice but to formulate policies on adapting to climate change now and mitigating climate change for the future. Countries are, for example, agreeing to cooperate on technology development and to establish region-specific carbon markets. A partnership between China and the United Kingdom will test advanced coal combustion technologies, while India and the United States have forged a partnership to develop nuclear energy in India. Countries in the South are also developing and sharing new climate-friendly technologies.

China, the fourth largest producer of wind energy in 2008, is the world's largest producer of solar panels and wind turbines. In 2011, India's National Solar Mission helped spur a 62% increase in investment in solar energy to \$12 billion, the fastest investment expansion of any large renewable market. Brazil made an 8% increase in investment in renewable energy technology to \$7 billion. Regional, bilateral and national initiatives in the South to mitigate climate change and protect environmental resources are positive steps. But climate change and the environment are inherently global issues that require global resolution through multilateral agreements. The cooperation and participation of rising economies of the South in such agreements are vital to their success. Regional collaboration and agreement may be a step in this direction, indicating genuine interest in tackling the climate challenge.

Sustaining progress in uncertain times

The rise of the South was facilitated by a historic global expansion of trade and investment. More than 100 developing countries recorded growth in income per capita of more than 3% in 2007. Recently, the economic slowdown in developed countries has nudged the South to look towards regional demand. Already, developing countries trade more among themselves than with the North, and this trend can go much further. South-South trade blocs remain riddled with nontariff barriers that constrict the scale of trade possibilities. Large foreign exchange reserves remain idle when there are higher returns and more-secure opportunities for South-South investment. There is potential to expand

development partnerships and regional and interregional cooperation. The rise of the South has underpinned rapid economic growth in Sub-Saharan Africa and enhanced opportunities there for human development progress. Many of the fastest growing economies in this century rank low on human development. While some have made progress on no income indicators, others have not. Governments should seize the growth momentum and embrace policies that convert rising incomes into human development. Policies that build human capabilities and domestic productive capacity will enable countries to avoid “the commodities trap” and diversify economic activity. South–South cooperation can help bring out the learning and diffusion potential in trading, investing and partnering in all industries, even commodities. South–South partnerships can facilitate industrial diversification through FDI and joint ventures, technology sharing through peer learning, and provision of affordable products and innovative uses that meet the needs of the emerging entrepreneurial class. This cooperation

is already happening and can be scaled up substantially in the years ahead.

All said, the rise of the South has been dramatic but is still in its early stages. The breadth of social, economic, technological and entrepreneurial connectedness among developing countries today is unprecedented. The daily headlines may carry dismal messages about world events. But interspersed among these discouraging notes are frequent snippets reporting on entrepreneurial ventures and common-sense applications of new technologies by enterprising people in unexpected places.

Multiply each story by the number of people in developing countries and the cumulative potential for a rising South across all regions is astounding. Global prospects are uncertain, and the economic downturn in the North is adversely affecting the South. With the right reforms, however, including a shift in policy orientation, the promise of sustained human progress is stronger as a result of the shift within the world economy brought about by the rise of the South.

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A Study of Emerging Trends in Brand Engagement through Digital Marketing

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Abstract

Prior to the introduction of web the relationship between brands and consumers has mostly been one way. Brand Marketing has undergone a sea change, and the Internet has proved a catalyst in bringing the changes forward and magnifying their scale. With growing competition in the marketplace, firms are engaged in a constant search for better ways of communicating the various features of their products/ services and of marketing them effectively. Many factors like more educated and demanding customers, shorter product lifecycles and growing competition have also added to the problems facing firms. Intent on acquiring new customers while retaining the old, firms turned to branding. Previously, the effectiveness of traditional forms of communication and marketing were adequate in brand engagement and brand building.

Even in a world filled with spasm, consumers and businesses are finding each other on the Internet in modest ways. Companies employing digital marketing tactics are actively working to ensure their customers are getting the best and most relevant information that they need to make purchases. Digital marketing consists of search engine optimization, permission-based email marketing, Sms's and online coupons.

Internet advertising has recaptured the imagination of marketers, who see an enormous potential to raise the profile of their brands through engagement vehicles such as paid search and online video. One way marketers are trying to reach consumers is with Multi-Channel digital marketing. Many marketers find Multi-Channel campaigns are more effective, and improve the performance their brands.

Key words: Digital Marketing, brand engagement, Internet, Brand Marketing

Introduction and Background

Engagement Marketing is a strategy that directly engages consumers, invites and inspires them to take part in the evolution of a brand. Engagement Marketing believes that the consumer should be made to receive a message and interact directly with the company on one to one basis in production and creation of Marketing Communication. The fundamental purpose of engagement marketing is to connect the consumer in two way dialogue and suggestive interaction.

A commercial ad in Television or a simple print advertisement does not qualify as engagement marketing

because that is only one way communication. In engagement marketing through Web 2.0 social media technologies such as blogs, live chat and product ratings, Email or through sms consumer can actually participate, share experiences and interact with the brand. All the brands or a brand experiences can be directly taken to consumers through interactive channels of digital marketing in a more economical way. Rather than wait for the consumer to find it, the brand takes itself directly to the consumers with digital campaigns that resonate on a personal level. This way the company can be able to build trusting and lasting relationships with its customers.

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As per Alan Moore author of “Communities Dominate Brands: Business and Marketing Challenges for the 21st Century”:- Engagement Marketing is a very broad term, and purposefully so. At its heart, is the insight that human beings are highly social animals, and have an innate need to communicate and interact? Therefore, any engagement marketing initiative must allow for two-way flows of information and communication. We believe, people embrace what they create. And why is this important? Because in advanced economies the values of society and the individual change. At the heart of this is the key issue around identity and belonging. We have always had community. The Community Generation, shun traditional organizations in favor of unmediated relationship to the things they care about. The Community Generation seeks and expects direct participation and influence. They possess the skills to lead, confer and discuss. These people are not watching television and have grown up in a world of search and two-way flows of communication. Going further Engagement Marketing is premised upon: transparency - interactivity - immediacy - facilitation - engagement - co-creation - collaboration - experience and trust these words define the migration from mass media to social media. The explosion of: MySpace, YouTube and Wiki’s.

Review of Literature

Studies have shown that Television took 35 years to reach 25% of house holds in United States of America, Mobile phones took 13 years to reach same number of house holds and Internet took just 7 years. Such is the speed of internet penetration in the market. If we look at the data people using internet so extensively- that there were 1.2 billion people on line in the year 2007. In February 2007 Internet had 514 million searches per day or 6000 searches per second. Moreover, viral marketing or Forwards have become exceedingly popular because of the internet. In Viral Marketing- Each new pass to 5 friends, after 10 passes along the clip has reached almost 25 million people- that’s the power of digital marketing techniques. (Kent Wertime and Ion Fermer 2008)

The digital techniques are also becoming more diverse and more intricate. Dove’s ‘Campaign For Real

Beauty’ culminated in the ‘Evolution’ video that in just over a minute told the story of how artificial a magazine cover girl’s image is, and in doing so sparked millions of online conversations as the content flowed frictionless across YouTube and the blogosphere. Similarly Nike’s city running platform has brilliantly placed the web at the core of blended, connected marketing strategies that create social spaces as the hub around which a brand’s activity — from traditional above the line to PR to events — takes place. (Danny Meadows-Klue2008).

Web 2.0 is affecting the way people communicate, make decisions, socialize, learn, entertain themselves, interact with each other or even do their shopping. They also suggest that the Web 2.0, next to transforming peoples’ individual and group behaviour, has also affected the power structures in the marketplace, causing a substantial migration of market power from producers or vendors towards customers. The main reason for this is that today’s online consumer has access to a previously unknown reservoir of information and knowledge as well as unlimited choice, available at the click of the computer mouse. (HitWise.com, in a study published)

Throughout the brief history of the Internet, expectations have run high for it to “change everything.” Companies are moving online across the spectrum of marketing activities, from building awareness to after-sales service, and they see online tools as an important and effective component of their marketing strategies. After the dotcom crash, a series of success story digital firms started to emerge. Under the microscope, their corporate DNA looked like it might share many of the same genes. These digital natives seemed to have a surprising amount in common and, from around 30 different strands of behaviour, the genes of the second generation of internet communications were isolated. In an industry infamous for its jargon, ‘Web 2.0’ became the new buzzword, and Facebook, Google, Craigslist, MySpace, Flickr, Wikipedia etc became its icons. (Danny Meadows-Klue2008)

Companies use the Web to reach customers throughout the decision-making process. By 2010 respondents expect a majority of their customers to discover new products or services online and a one third

to purchase goods there. A majority of the executives expect their companies to be getting 10 percent or more of their sales from online channels in 2010—twice as many companies as have hit that mark today. The entertainment industry is now fuelling social media with promotional content (there are thousands of examples from the Harry Potter launch publicity to the Lord of the Rings' pre-release research). While many brands are creating their own presence within social media, other brands are feeding campaigns into the online social networks (with Coke and Pot Noodle among the many food and drink brands to succeed in this new era of viral marketing). (Danny Meadows-Klue2008)

The shift in customer needs is reflected in the growing demand for online services, particularly in the Web 2.0 domain, where consumers can not only interact with marketers but also access peer communities. The fast expansion of the 'blogosphere' and other online platforms where people can post and exchange personal ideas, videos, pictures and tags but also participate in virtual worlds or games has by now created its own dynamics: it occurs without any form of marketing effort from the part of the application providers. The value attributed to these applications is not based on the classic customer value approach but rather on some feeling of achievement through personal gratification. As to the consumer behaviour this is increasingly influenced by peer opinions and the collective intelligence (Surowiecki, 2005).

What could Web 2.0 mean to marketers and how can they integrate it into the corporate commercial strategy? Recognizing the effects of Web 2.0 on the consumer's decision-making process, understanding the sources of customer value and the motives of consumers to use these applications are the first steps to this direction. Web 2.0 applications are becoming increasingly popular due to the advantages they offer to users (transparency, referrals, contacts with other users, etc) and their effect on customer power (Urban, 2003).

Interaction with peers triggers new customer needs (often for niche and highly personalised products) and alter buying attitudes. The new buying attitudes are not limited to the online buying behaviour but extend to the

traditional one: according to a recent survey of the Sterling Committee 'consumers want a seamless buying experience across all channels' (BizReport, 30 August 2007). Moreover, the customer preferences and experiences about the products and services offered either in traditional or electronic outlets are not based any more exclusively on information made available through traditional mass media or corporate websites. In the Web 2.0, era customer preferences and decisions are increasingly based on inputs provided by parties beyond the control of online marketers: peer reviews, referrals, blogs, tagging, social networks, online forums and other forms of — uncontrollable by the marketer — user-generated content.

The Need to Engage the Consumer Digitally

Marketing has undergone a fundamental change over the last decade. More buyers have moved online to educate themselves on the market and available products, and our ability to guide them through a "sales process" has diminished. Today's buyer is in control, has access to numerous high-quality sources of information, and goes through a "buying process" at his or her own pace.

In an article in New York Times, Stuart Elliott gave a story where he quoted two top retail execs: Wal-Mart CMO Stephen Quinn and Cammie Dunaway, CMO of Yahoo! Here, respectively, is what they said: "Today, the customer is in charge, and whoever is best at putting the customer in charge makes all the money." And: "Allow consumers to help you shape the brand experience. . . . Content is no longer something you push out. Content is an invitation to engage."

With growing competition in the marketplace, and freezing advertising budgets in recession, corporates/firms are engaged in a constant search for better ways of communicating the various features of their products/services and of marketing them effectively. Many factors like more educated and demanding customers, shorter product lifecycles and growing competition have also added to the problems facing firms. Previously, the effectiveness of traditional forms of communication and

marketing were adequate in brand building.

Innovative Digital Tools for Brand Engagement

Email Marketing

Email Marketing is being increasingly used as an effective tool to engage the consumer in brand building process. To communicate effectively with prospects and meet their individual requests and needs; and to convert those leads into customers; and to track those customers' billings are some of the challenges of modern business. They can be easily solved by using E mail Marketing.

The Return on Investment (ROI) on Email marketing is approximately 700% to 900%. The fact that the open rate of Email marketing is around 20% to 30% . The size of Email Marketing is estimated to be 885 million\$ in 2007 by 2010 it will go up to 1.1 Billion \$. As of today around 80% of Marketers are using Email Marketing Programmes for their products and services. The fact that over 90% of internet users access mail and half of them on daily basis, will only boost the use of Emails for marketing purpose. *Source-Digi Marketing By Kent Wertime and Ion Fermer*

Email takes the concept of direct marketing further, which is highly interactive with emphasis on the specific need of each and every consumer. As per a research from double click in November 2001- very significant facts have come in to notice that more than 88% of consumers actually bought the products of the companies as a result of permission based e mails which was clearly more than 27% compared to the year 2000. This research also confirmed that 37% of the people who received these mails had actually clicked immediacy thru mails that were sent to them and purchased the products which 20% more than the figure in the year 2000.

Source- http://www.marketleap.com/report/ml_report_24.htm

The latest trend in marketing is seen as a shift is going towards the direction of Email marketing. When a person searches on a search engine for a specific

product or service, he is qualifying himself as a potential customer.

Here's a list of seven key factors as to why a company should adopt E mail marketing:

- The impact of traditional mass media marketing communication is decreased by changing consumer demographics.
- Growing consumer sophistication amplifies the demand for channel-agnostic messages.
- Widespread marketing "clutter" decreases the impact of commercial advertising that doesn't address specific and individually relevant consumer needs.
- Enhanced information availability empowers both marketers and consumers with insight that allows for precise customer targeting and intelligent purchase decisions.
- Heightened client pressure to deliver quantifiable value compels marketing service providers to re-evaluate services platforms.
- Growing effectiveness of multi-channel campaigns reinforce demand for tactics that establish one-to-one relationships between marketers and consumers.
- Rapid technological advances permit consumer/ marketer interactions that are frequent, easier, cost effective and more relevant than previously possible.

Thumb Economy

SMS Marketing

SMS (text messaging) marketing or popularly known as "The Thumb Economy" has become extremely popular over the years. With down trading taking its toll on the advertising budgets of fast-moving consumer goods firms and greater emphasis now on a 360-degree communication strategy, below-the-line marketing companies are seeing an unprecedented boom in business through sms marketing.

In 2007 Mobile Commercial Messages had 95% open rate. In early 2007 there were 2.7 billion mobile users in the world. This is more than double the number of TV sets in the world. 350 million SMSs are exchanged in the world every month. 15% of these messages are commercial. This shows the popularity of **Thumb**

Economy. Global mobile ad spend in 2006 was 1.4 billion dollar by 2011 it's expected to be 11.7 billion dollar. In Europe Christmas day SMS count for 25% of years SMS. As of now 80% of world population is connected to mobile phones and it is expected to reach 90% by 2010. *Source-Digi Marketing By Kent Wertime and Ion Fermer*

E-tailing

E-tailing or Online retailing has come a long way since the years late 90s. All the companies who want to be noticed by their prospective as well as current customers must be visible and found in the web. As per a study conducted by NPD (formerly National Purchase Diary) in February 2001, it was found that the companies that are found in search engines have greater brand recall than the ones that have given a simple banner ad in the web. The web visitors are motivated to buy the products of the companies that are easily found on search engines.

The study found that a search engine listing surpassed banners and buttons by three to one ratio. People gave more favourable feedback about the companies that featured in top search engines than those in standard banners. Approximately 55% of total online purchases were made from the companies that were found in search engines and only 9% purchases were made from the company web sites that had floated banners ads.

These studies clearly suggest that people are more inclined to trust search engines. Online advertising reminds the consumer that a company has not faded away, sticking to a one-sided, high-frequency push of information it believes will draw people to it like a lighthouse. Digital marketing looks to meet up on a place where mutual conversations drive transactions and relationships. In a shifting sea of choices, marketers' budgets will soon reflect where the real money and conversations live.

Essentials of Digital Brand Engagement

When a company decides to go the digital way it should just go as per the mission statement which

represents and reflects its purpose as it will attract and comfort the clientele, will bring inspiration and drive to employees and finally produce measurable results. All digital coupons should look exactly like the coupons distributed thru news papers and other media.

This increases the recipients' comfort zone. It is always wise to use existing avenues of traffic to drive e-Traffic and vice versa. Particularly in retail, the special offers should be sent in one day preferably, two at most, prior to the typical shopping day-cycle and send them in the same cycle in which people shop, normally, Friday or Saturday when shoppers plan weekend shopping. It should be ensured to the shoppers that their contact information will, in no circumstance, be shared or otherwise compromised. Email combined with print will provide a higher degree of comfort for employees, investors and other channel partners.

With the mission in mind ask yourself these questions:

- The purpose of business?
- Who is your potential target audience?
- The customers?
- What are the exact needs that your product or service can fulfill?
- How do you plan to fulfill these needs by going the digital way?
- What are the values represented by your business?

With the above questions in mind the company should gather the core marketing team for a brainstorming session. Really find out what it is that creates the excitement and the drive in your business. Spend time and determine who it is that you serve everyday. Talk about your values and the philosophy of your company. When you've finished answering the questions, it's time to put the pieces of information together. This process will not be easy and you will have to invest time into this process. The good news is that the end result with digital marketing techniques will be encouraging and reflect your purpose for keeping the lights on. That is how you can create marketing value and increase sale by going digital way.

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Effect of formal mentoring on the objective measures of performance in IT Industry in India

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Abstract

This study is a part of the PhD. work entitled Mentoring as a tool of performance of management in an Industry. This study focuses on the effect of formal mentoring programs on the performance of a protégé in an organization in comparison to its effect on the performance of a non-mentored individual. The performance measures considered are objective measure of salary increment & promotion. The research results indicated that mentoring increased the salary of the mentored employees. However, mentoring did not help to improve the rate of promotions in the mentored employees. The findings may be considered by Human Resource department when deciding on various developmental interventions to be introduced in an organization.

Keyword: *Objective measures of performance, mentoring, performance*

Allen et al. (2009) in his work mentions that if the organizations possess rare resources it gives them a competitive edge over the others. When we talk about rare resources it may be physical assets or human resource. The physical asset may be imitable but human resources are not. Hence the researchers felt that investing in enhancing the human resource may prove to be beneficial to the company. One of the ways to enhance the quality of human resource is to mentor the employees. Mentoring is a means to equip the employees with knowledge, skills and abilities. The researchers mention that the benefits of mentoring are at two levels; one at the employee level, as it helps them to perform better. Two, at the organizational level it helps achieving the goals of the organization. The functions of the mentor in a mentoring relationship are to provide support to the protégé in terms of coaching, protection, sponsorship to visibility in order to aid the career progress of the protégé.

In short the mentor provides career and psychosocial support. Past research indicates that mentored employees by means of formal mentoring program demonstrate faster upward mobility, receive higher salary, and show reduced turnover rates in a company.

The term “Mentor” has been defined by several scholars. Bass noted that: “The mentor is a trusted counselor who accepts a guiding role in the younger or less-experienced member. Mentors use knowledge, experience, and their status in the organization to help develop their protégés. Unlike the regular notion that mentors may help the protégés progress by holding unto their coattails” (1985: 90).

Job Performance

The study makes an attempt to understand the relationship between performance and mentoring. Hence,

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it is important to define and understand the concept of job performance. The construct of job performance is very abstract and not restricted to any one definition as it is not possible to use a single physical manifestation of job performance (Viswesvaran, 2001). The construct of job performance comes down to the fact as to whether the behaviors and outcomes that are studied can be controlled. If they can be controlled they fall under the construct of individual job performance (Viswesvaran, 2001). Job Performance has two dimensions to it; task and contextual.

“Job performance is the degree to which an individual executes his or her task related role with respect to the standards set by the organisation” (Nayyar, 1994; Khan,A., 2012).

Mentoring and performance

Mentoring aids in both personal and professional life as mentioned earlier (Kram, 1985). Mentoring also helps in developing positive attitude, learning and leads to greater positive work. More amount of Mentoring helps in directing the employees’ energies towards achieving the organization goals in a more productive manner; increasing organizational job satisfaction; improving attitudes and increasing organizational effectiveness; and ultimately creating a competitive advantage for the organization (Allen et al. 2009). Methods to assess individual job performance are categorized into category (1) organizational records, and (2) subjective evaluations. The first category is considered as an objective evaluation while the second category is considered as judgmental.

The aim of this research is to study the implications of formal mentoring on performance within the software development industry. The industry of choice has been Information Technology as this is an industry where technological changes are very rapid, every year there are many new developments happening and it makes it essential for the employees to up-skill themselves regularly. It is obviously a human resource intensive industry in which human capital is the key (Soto-Acosta, P et al., 2010). One of the essential components of

corporate mentoring program is monitoring job performance of the employee. By observing and measuring job performance and comparing it with the predetermined standards of job performance, the organization/ mentor would be able to determine whether an employee is performing adequately on the job; this information can be used to assist the employee in becoming a better performer. For better results, mentoring programs should be linked to job performance of the employee.

The significance of the study is in the examination of the relationship between formal mentoring and the effects on objective measures of job performance.

Therefore the general objectives of the study is to understand the effect of mentoring among the employees in an organizational setup and whether mentoring helps.

Objective

The purpose of this study was to understand the effect of mentoring on objective measures of job performance of the individuals in an organization. To compare the objective measures of job performance outcomes of mentored individuals to non-mentored individuals in corporate in terms of:

- a. Promotions and Salary Increments of mentored and non mentored employees

Hypothesis

Hypotheses testing was done on 2 datasets to check whether the mentoring program helped to enhance job performance.

Proposition 1: Number of promotions received by protégé is higher than non-mentored employees.

Proposition 2: Protégés receive higher compensation increments (in %) than non-mentored employees.

The objective measures of job performance for this study are promotions received and increments in compensation. The hypothesis testing tries to study whether the mentored and non mentored employees receive same numbers of promotions and salary

increments or do the mentored employees fare better in terms of these measures.

Operational Definitions

Mentoring Mentoring is offering of wise and reliable advice, information, guidance by a person who has more and useful skills, expertise and experience in a related field for the growth of another individual, both, personally and professionally.

Mentor

For the purpose of this research mentor has been defined as an individual with at least three years of related experience in the organization and capable of providing trust worthy advice to his protégé.

Protégé /Mentee

Protégé is an individual who has recently joined the organization and requires guidance to perform his job successfully.

Job Performance/ Performance/

Job performance is the ability of the individual to complete his work successfully as per the standards set by the organization.

Type of Study

The type of study chosen for this research is quantitative. Here the study is trying to determine the relationship between mentoring and job performance amongst IT professional.

Type of Research Design

The research is a descriptive study to understand if there exists a relationship between the two variables of mentoring and objective measures of job performance. Data was collected from two groups, mentored employees, non mentored employees,

Sampling Plan

Information Technology industry was selected for the study. 75 Indian IT companies allowed the researcher to collect data from their employees. 46 organizations had mentoring program and 29 organizations did not have mentoring program. IT Companies with formal mentoring programs of more than 3 years were than selected. Protégés and non mentored employees were software engineers with varied years of experience while mentors were team leads and above. 75 organisations across the country allowed the researcher to conduct the study; questionnaires were made available online to maintain privacy. At times links were sent to personal ids if the links were not accessible due to firewalls. The questionnaires were also distributed to employees through their team leaders where the link could not be opened due to security firewalls. The sample size was 300 employees. The study examined two sets of employees i.e. study the job performance of 150 employees who are being mentored as against the 150 non-mentored employees. The first part of questionnaire for mentored and non mentored employee contained questions on general information and demographics like age, gender, tenure in the organization, designation and educational qualification. The Job performance is measured in terms of promotion (Q.1) and improvement in salary (Q.2) and salary increments (Q.3) the employees received in the present organization as objective measures. Data was collected from organisation from 12 cities across the country. Respondents were hailed from cities of Mumbai, Pune, Chennai, Bangalore, Mysore, Ernakulam, Bhubaneswar, Hyderabad, Delhi, Noida and Gurgaon, Belur etc. Reliability testing of the data was carried out for the data collected. The Cronbach alpha value for mentored employee's data with 58 items was 0.904. The Cronbach alpha value for non-mentored employee's data with 11 items was 0.759. All the cronbach alpha results were acceptable for the study.

Data Analysis

Data was analyzed with a view to determine the positive effect of mentoring on objective measures of job performance. This was done by observing objective measures (promotion and salary), Hypothesis testing was

carried out to see the relationship between mentoring and job performance. Rejection of null hypothesis was the statistical significance at the $p < 0.5$ level of probability. Descriptive analysis was used to understand the profile of the respondents. Information like age, gender, educational qualification, years of service etc was studied. Maximum number of organization was offering IT services (64%). The maximum number of respondents belonged to the profession of software engineer (21%) followed by systems engineer (11%) of the 300 respondents. 56.66% of protégé respondents were in the age range of 21-25 years. More than 35% were with an educational qualification of B.Tech followed by M.C.A, B.E and M.B.A. 36% respondents had completed between 13-24 months in the current organization followed by 28% who were new entrants. Of the respondents 72% were male and 28% female. More than 45% mentored protégés had received 1 or more promotions. More than 25% respondents have received up to 10% increments. 42% of non mentored protégés were in the age group of 26-30 years. 40% of respondents had tenure of 13-24 month in the current organization. Maximum respondents had a qualification of B.Tech followed by M.C.A. 69% of respondents were male as compared to 31% who were female. More than 45%

replied that they were yet to receive promotions and more than 30% said that they had received up to 10% increments.

The analysis of the averages and comparison between them for mentored and non mentored employees indicated that both these group may be receiving same number of promotions. However the trend for salary increment is different.

It was observed that protégés were getting better salary increments almost 50% more than non mentored employees.

Comparison of the Objective measures of performance between the protégés and non mentored employees.

The first objective of the study was to compare the performance outcomes of mentored individuals to non-mentored individuals in corporate. The performance measures studies were objective. In objective, salary increment and promotions were studied for both

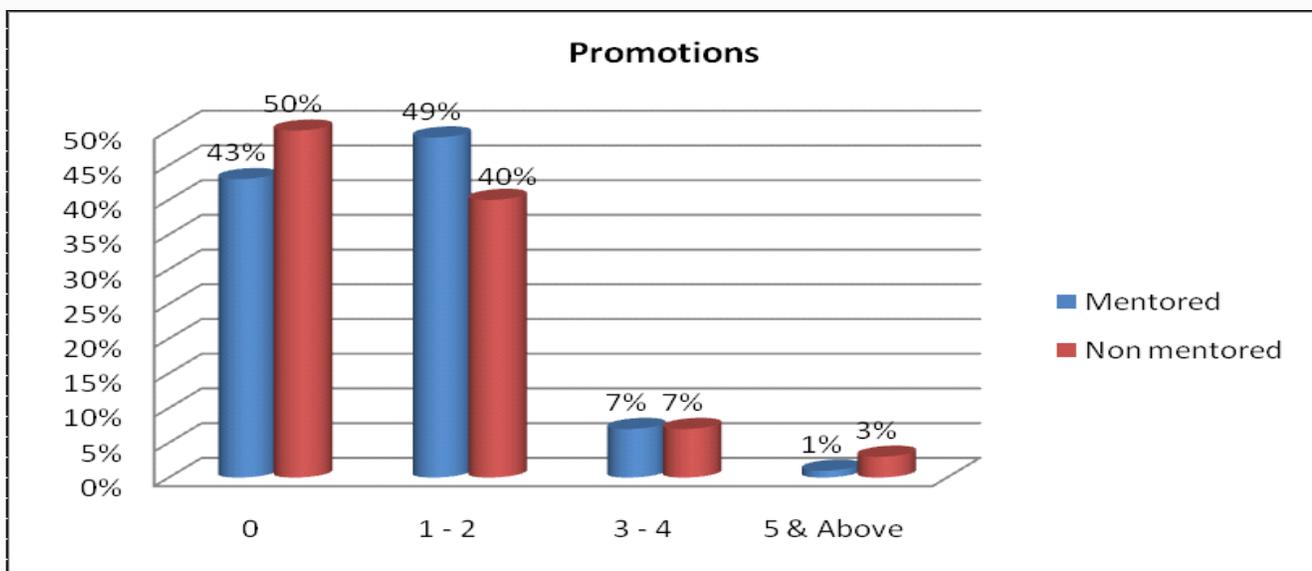


Figure 1.1 Comparative data of promotions received in current organization

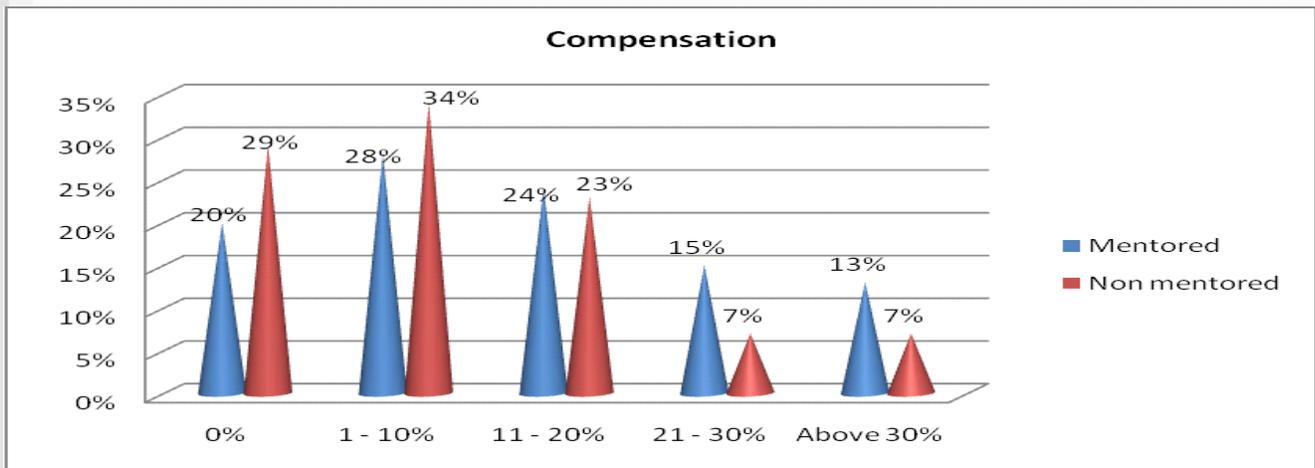


Figure 1.2 Comparative data of increment in compensation

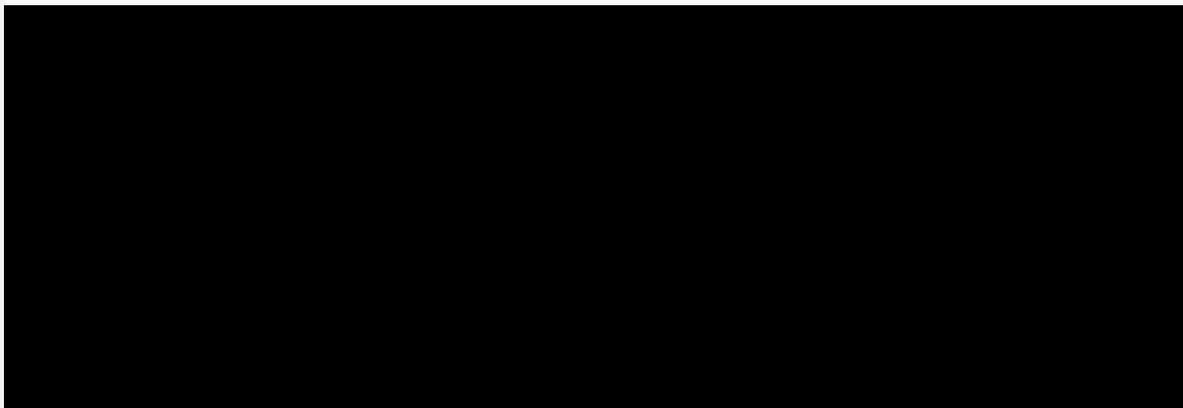


Table 1.1 Promotions

mentored and non mentored employees were studied and compared to understand whether there were any differences in the measures or both the group fared similarly.

Objective Measures: Increment in Compensation and Number of Promotions

1.No. of promotions received by protégés’/mentored and non mentored employees in the current organization. It is observed that most of the employees in both groups are fresher with zero promotions; the next largest percentage is of employees with 1-2 promotion in both groups of mentored and non mentored employees

2.Percent improvement in compensation during

protégés’ tenure (Q.3)

Figure 1.2 illustrates the number of promotions andpensation increment received by the non mentored employees is up to 10% as well. It may however be observed that the next category in compensation increment is 11-20% for protégés and for non mentored employees is 0% increment.

Classification of employees according to service in years and number of promotions

The comparison between non-mentored employees and protégés for two items in the dataset; viz. Tenure in the



Table 1.2 Average Rate of Promotions

Non-mentored employees						
Q3 Svc	0	1	2	3	4	Total
0	31	14	5	2	1	53
1	11	32	13	3	1	60
2	1	4	11	5	2	23
3	0	1	3	1	2	7
4	0	0	1	0	0	1
5	0	0	0	0	0	0
6	0	0	1	0	0	1
7	0	0	0	0	5	5
Total	43	51	34	11	11	150

Table 1.3 Salary Increments received

Service Range	Average salary increment rate slab	
	Non-mentored employees	Proteges
0	0	0
1	1	2
2	2	3

Table 1.4 Average increment rate received by employees

company (in years) and Promotions received in the current organization (Q.1) may be used for deeper analysis. The tables 1.1 represent count under each category of both items. The row and the column headings in table 1.1 are available responses to the items numbered from 0. Here for promotions received 0 indicates no promotions, 1 indicates 1-2 promotions, 2 indicates 3-4 promotions and 3 indicates 5 and above promotions. For service tenure in the organization, 0 indicates 1-12 months of experience, 1 indicates 13-24 months of experience, 2 indicates 25-36 months experience and so on.

The first 3 rows contain 90% of the sample data and the same has been considered to measure average rate of increments. The measure used implied that among the population of employees with same service; non-mentored employees and protégés may be receiving same number of promotions during their tenure in their respective current organizations (Table 1.2).

Classification of employees according to service in years and salary increment rate slabs

The comparison between non-mentored employees and protégés for two items in the dataset; viz. Tenure in the company (in years) and Percent improvement in compensation during employee's tenure (Q.3) may be used for deeper analysis. The tables 1.3 represent count under each category of both items. The row and the column headings are available responses to the items numbered from 0.0 for salary increments indicates no increment, 1 indicates 1-10% increment, 2 indicates 11-20% increment, 3 indicates 21-30% increments, 4 indicates increment in salary above 30%.

The first 3 rows contain 90% of the sample data and the same has been considered to measure average rate of increments.

The measure used implied that among the population of employees with same service, on an average protégés may be getting better salary increments than others (Table 1.4)

Hypotheses have been tested to determine if protégés and non mentored employees show different rate of promotion and salary increment under objective measures.

Comparison of the Objective measures of performance between the protégés and non mentored employees.

Testing of hypothesis for protégés' and non-mentored employees' questionnaire responses

Before analyzing the questionnaire responses by protégés and non-mentored employees, it was decided to check both set of data to see if employees have been selected from the same population in a random fashion. Hypotheses testing were done on the data to check the normality. The data did not follow normal distribution. F-test was done to check population variances that were found to be equal. Assuming equal variances two sample t-test was conducted to see if the data belonged to the same population based on age. Mann-Whitney test to verify the same as the data did not follow the normal distribution. It was again found that the sample belonged to the same population based on age. Standard two sample t-test was carried out to verify if the sample belonged to the same population based on gender, service, and educational qualification. It was found that the sample belong to different population based on educational qualification.

Statistical tests comparing objective measures of performance are given below-

1) To test H_0 : Number of promotions received by protégé and non-mentored employees are equal

against H_1 : Number of promotions received by protégé and non-mentored employees are not equal

Conclusion: The value of p is 0.5112 at $df = 298$ and $t = -0.6578$ Since p-value is > 0.05 , at $\alpha = 0.05$ accept H_0 . Hence both set of employees may get equal number of promotions.

2) To test H_0 : Compensation increments (in %) received by protégé and non-mentored employees are

same

against H_1 : Protégés receive higher compensation increments (in %s) than non-mentored employees

Conclusion: The value of p is 0.023 at $df = 298$ and $t = 2.8515$. Since p-value is < 0.05 , $\alpha = 0.05$ reject H_0 . Protégés may receive higher compensation increments in %s than non-mentored employees.

The two datasets under consideration are from the same population of corporate employees the only difference being if he/she has undergone the mentoring program or not. The average percent increase in their compensation indicates that protégés may be getting higher increments. However the number of promotions received by the protégés and the non mentored groups appear to be the same.

Conclusion

Hypothesis testing for objective measures indicated that number of promotions received by the protégés and non mentored employees were equal. While the salary increments for the two groups were not equal. Protégés fared better in this case as compared to non-mentored.

The reason for this may be that promotions in India are usually time bound in spite of good performance and are rarely given out of turn unless there is a case of exceptional performance. Salaries increments are given after the employees appraised annually based on performance standards prescribed by the organizations.

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Value Creation, Sustainability and integration of Agricultural Supply Chain of India

Sazzad Parwez

Introduction

Agriculture has been the backbone of Indian economy since independence and before that, right now with nearly 12 percent of the world's arable land, India is the world's third-largest producer of food grains, the second-largest producer of fruits and vegetables and the largest producer of milk; it also has the largest number of livestock. Add to that a range of agro climatic regions and agri-produce, extremely industrious farmers, a country that is fundamentally strong in science and technology and an economy which one of the largest in the world with one of the highest growth rate and you should have the makings of a very good harvest.

Yet the comprehensive outlook for Indian agriculture is far more complex than those statistics might suggest. The sector supports an estimated 70 percent of the Indian population, but is also the most sluggish, having just extricated itself from a period of negative growth of -0.1 percent in 2008-2009, to rise to an unspectacular 0.4 percent in 2009-2010 with upward revision in the production, 'agriculture, forestry and fishing' sector in 2010-11 has shown a growth rate of 6.6 per cent, as against the growth rate of 5.4 per cent in the Advance estimates. Adjusted for inflation, even this 6.6 percent growth looks unexciting when compared to the growth rates in services and manufacturing. Today, agriculture accounts for 13.8 percent of the country's gross domestic product, compared to 51 percent in the

1950s (Government of India, 2011). Worse, India is amongst the world's largest wasters of food and faces a potential challenge to provide food security to its growing population in light of increasing global food prices and the declining rate of response of crops to added fertilizers.

The reforms of 1991 have introduced Indian agriculture to the globalization which has very significant impact on agriculture and supply chain. And further analysis of secondary data says that first part of reforms brings out that there was a visible deceleration of growth in agriculture during the post reforms period. It also comes out that the growth of agriculture exports which picked up after 1991 slowed down after 1996-97 have stagnated since then and infact it went down and fluctuating in nature as it picked up due to some policy reforms and good monsoon in 2010-11 and it raised to growth rate of 5.4 percent. The deceleration of agriculture growth was also accompanied by visible deceleration in growth rate of employment. The growth rate on employment collapsed to nearly zero during that period. The data on both barter and income terms of trade brings out that both of them did shows some improvement in mid-eighties up to 1996-97 but had stagnated since then. All these data and information point out that agriculture sector is lagging sector in the Indian economy and farmers and other agricultural workers engaged in this sector have not been able to derive much benefit from new economic policies initiated in 1991.

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For strengthening agricultural production and productivity for farmers and economy, the governments had taken various initiatives, most of which were on the production side to ensure food security in the country. As a result, agricultural production in India experienced a remarkable growth after the mid-1960s with adoption green revolution technologies. This growth certainly led the country from being food deficit country to food surplus country, but at the cost of excessive utilization of natural resources and further, raised issues of sustainability in agriculture. The other crucial problem that constraints the growth of the agricultural sector is that public investment in agriculture as a percentage of GDP has been declining gradually. A policy analysis of agricultural system shows that there is multiplicity and duplicity of rules and regulations dealing with various components of supply chain in agriculture. Lack of coordination among these, again, leads to the poor alliance and collaboration supply chain, which in turn leads to the inefficient product and information flow.

Thus, this paper broadly covers some of important aspects of agriculture supply chain in India- identification of issues at different levels in the supply chain; transformation in the agriculture due to various supply chain interventions. Paper also tries to recommend activities to improve efficiency at different levels in supply chain. There is wide research gap in this sector, having such potential and prospectus for overall growth there is not much research in this field. The paper explores the aspect of value supply chain as it plays very significant role for development and contemporary issue for agriculture therefore; government action must address the issue of infrastructure development to achieve the objective of food security for all.

2 Objectives of the Study

There is basically two most important objective of the study:

1. To assess the importance of supply chain in Indian Agriculture.
2. To explore the issues of value creation and sustainability in Indian Agriculture.

3 Literature Review

Literature review has been base of understanding

of subject. The literature review covers many areas related to the nature of the research questions put forward, and thus includes: agriculture, food management, supply chain approaches, information technology and supply chain interfaces. Tracing the references by looking to the reference list is also performed and relevant papers found in journals have been tackled as well. The literature sources are mainly books, scientific journals, conference proceedings, dissertations, projects documentations, and management-oriented publications. These sources are of particular importance and engender all research process development, especially the early phase for initial exploration of the food supply chain management.

The focal point of paper has been supply chain mechanism in Indian agriculture. It has been assessed through primary and secondary data and information which was obtained through application of scientific research method by formulating research design and conducted the research by utilization of diverse kind of methods to assess the objective which includes research methods such case study, in-depth interview content analysis, triangulation method, observation method for primary data and information in Jharkhand (India) in month of June-July 2013 with farmers and officials of Reliance Fresh. Secondary data are taken from reliable sources such annual reports of ministry of agriculture, ministry of food processing, Food Corporation of India, research papers of authors with repute, article and book review from reputed national and international journals, Economic survey etc.

4 Limitations for the Study

The major limitations for the study are as follows

- The paper has been prepared based on the data collected from the published and unpublished secondary sources.
- The study findings are based on the limited coverage of selected literature and data available.
- Poor availability of secondary sources of data, especially on agricultural infrastructure.

5 An Assessment of Agricultural supply chain

The paper mainly focuses on supply chain management in Indian agriculture one can say that it is

an integral part of the organisation drive and direction. SCM represents the way to customer retention and growth, competitive advantage and profitability. But there is not enough attention been given to possible ex-ante measures to reduce, mitigate or share risks, although in some circumstances assessments will be conducted during/after adverse 'shocks' and attention will certainly be needed on workable coping strategies. There is also lack of emphasis on both formal and informal risk management options available to the different parties, although in practice, most analytical attention will focus on the scope for improving or supplementing formal mechanisms, including institutional and financial arrangements, technological changes, adoption of improved management practices, and/or investments in infrastructure. To the extent that the overall assessment is focused on the position and welfare of poorer farmers, then greater attention need to be given to alternative informal mechanisms and improving their efficacy. Study also suggests that there is lack of attention paid to areas categorized as 'high vulnerability', either for individual chain participants or the chain as a whole. This high vulnerability may already be evident from recent/past experience or be expected due to unfolding changes in market conditions, regulations, or other circumstances.

Assessment of food supply chain management has not been given its due and that should be undertaken on the needs/options for policy and regulatory reforms that affect farmer/agro-enterprise risk management as well as the possible revision/reform of governmental risk management instruments. Aspects like cold chain needs to be given more consideration as it has contributed tremendously to trade in fruits, vegetables and flowers in developed countries and it could be game changer in India. Besides, cold chain, results in the reduction of losses and retention of the quality of horticultural produce. While the introduction of a cold chain facility nationwide due to some institutional, structural and financial constraints may not be immediately possible in India, attempts must be made to develop a cool chain. Food loss reduction is less costly than an equivalent increase in food production. If efforts are not made to modernize the harvest handling system for horticultural

crops, then postharvest losses will continue to have a negative economic and environmental impact. There is no doubt that postharvest food loss reduction significantly increases food availability.

Collaboration between supply chain partners has been reducing and will reduce risk and greatly improve the efficiency of overall pipeline. Supply chain efficiency therefore relies heavily on the successful long-term relationships/partnerships where information sharing, joint problem solving and trust are key success factors. Supplier development and the evaluation of the supplier's performance is the first issue of managing the supplier relationship. If the supplier's performance is perceived as inadequate, it should be assisted to enhance its performance by means of training and continuous improvement teams and this area also require mote research work and assessment for overall development.

After exploring important issues such as post-harvest losses and its impact and ways to reduce it and to achieve that, one can understand that there is need of educating farmers in selecting the correct inputs and in postharvest handling, including cleaning, food safety, drying, sorting, and packaging at the farm gate. There has been gradual improvement in the accuracy of demand forecast by dynamic adjustments to reflect changes in demand, lead times, transit time, capacity, and transportation and distribution routes, as well as events outside the organization due to advancement in information and communication technology and it has done a good job in reducing the post-harvest losses and it means that variance of lead-time can be reduced by removing non value-added steps and activities, improve the reliability and robustness of manufacturing, administrative and logistics processes. Standards for the handling and storage of all perishable items has been improving but still far away from where it can be and better the handling ,storage and preservation of quality of fruits and vegetables, which would increase the price and consumption, which in turn, would provide a better return to the farmer. Supply chain management systems have the ability to track critical events & activities and when these events do not unfold as expected, they send out alerts and messages to notify appropriate managers to

take corrective actions. Flexibility is still lacking in supply chain system and it can be improved by enhancing responsiveness. Companies need flexible strategies that match their operations, such as product design, sourcing, manufacturing and postponement. Establishment of pack house facilities having basic requirements such as washing tanks, sorting and grading devices and cold storage facilities at the premises of the Dedicated Economic Centres (DEC) (collecting centres) in major fruit and vegetable producing areas in the country, will overcome the problems of quality deterioration, contamination of fresh produce with harmful bacteria and other extraneous matter and will improve the safety of produce to a great extent.

Physical infrastructure variables are in need, as roads and electricity, which link villages to nearby assembly and wholesale markets and in turn with large wholesale and terminal markets and ports. There is huge lack of warehousing and cold storage facility and encouragement for the establishment of cold storage facilities. There is need of transportation facility such as refrigerated carriers to facilitate storage and transportation of perishable agricultural commodities. There is lack of encouragement for technological developments in the packaging of agricultural commodities and in promoting packaging facilities appropriate to specific commodities. Developed of mega markets and food parks or terminal markets with a higher level of all facilities are to be established and most of existing mega markets and food parks are not accessible to a common farmer which needs to be addressed. To integrate whole supply chain there is requirement of collaboration and co-operation among supply chain partners will only happen if there is trust among the parties, upfront agreement on how to share the benefits, and a willingness to change existing mindsets. Once these elements are in place, supply chain partners can do joint decision making and problem solving, as well as share information about strategies, plans, and performance with each other.

The implication of current policies and institutions can be understood in the context of agricultural sector large contributions to economic production, employment and the welfare of rural people, all of which has made it

difficult for policy makers to take risk on agricultural policy reforms. Research work also suggest that stimulating private agri business investment , whether domestic or foreign will require not only public investment in market infrastructure, but also supporting price and trade policies and comprehensive development of public market regulations and the institutions.

6 Information and Communication Technology and Agricultural Application

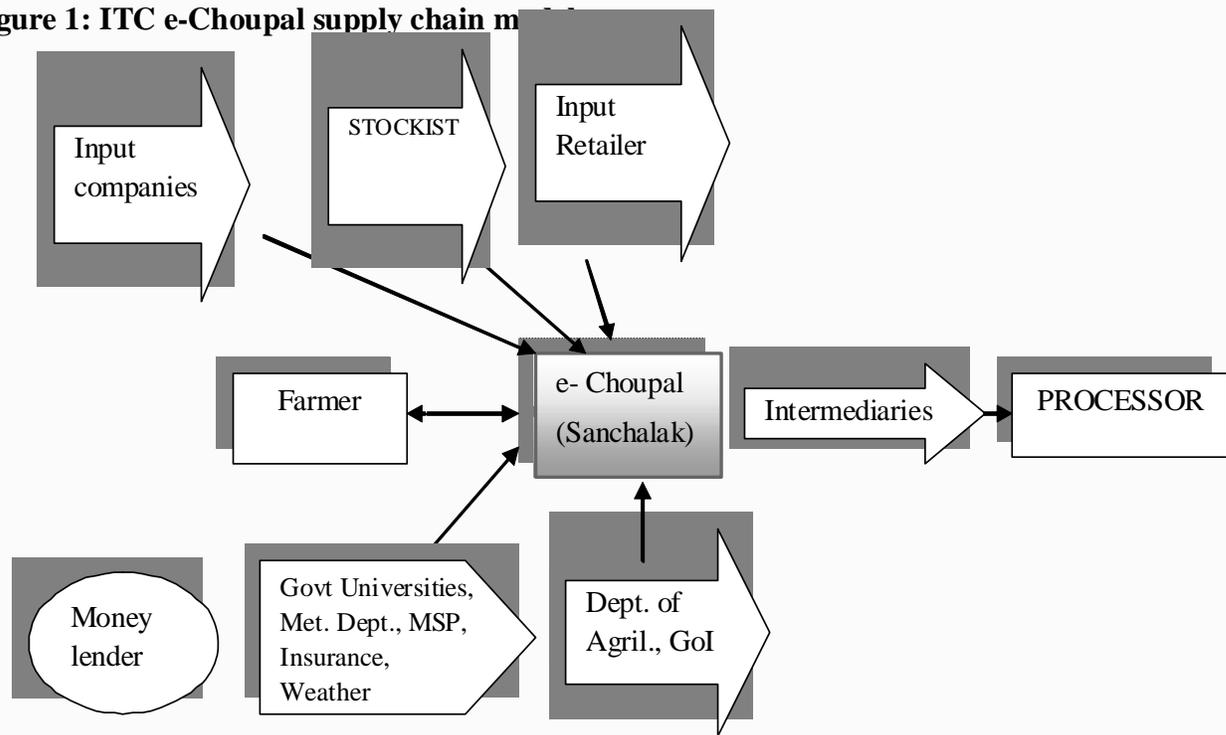
In order to disseminate information and provide different services in a cost effective manner, numerous ICT initiatives are being made in many countries. The developing world is looking towards ICT systems for solving their numerous information related problems. Literature argues that use of ICT facilities free flow of information and makes available the services even to the most marginalised section of the society. Many public and private sector ICTs – enabled initiatives have been undertaken in India in the last decade especially to cater the needs of agricultural or overall rural sector development but one needs to understand that to reach over 110 million farmers, spread over 500 districts & over 6000 blocks is an uphill task. Some of these initiatives include e- Choupals by ITC, DCM Shriram Consolidated Limited (DSCL), Hariyali Kissan Bazar, Drishti, AgMarknet, Gyaandoot, iKisan, Reliance Fresh, Parry Kiosks by EID parry etc.

6.1 Integrated Supply Chain Model: ITC e-Choupal (India)

ITC e-Choupal is a virtual market place where farmers can transact directly with a processor and can realize better price for their produce. Geographical distances do not restrict participation in the e-Choupal. The main disadvantage of conventional market is that information asymmetry is inherent in the market where as e-Choupal provides for transparent transactions. This enables the participation of smaller as well as larger players. The main attractiveness of e-Choupal is that it can be used for connecting large producers/small producers and small users/large users, thereby eliminating the need for hierarchy of brokers. Internet is used as a low transaction cost backbone for communication.

Initially e-Choupal came up, as an experimental

Figure 1: ITC e-Choupal supply chain model



Source: Conceptualise by Author

business model. But now e-Choupal presence is there in different states like Madhya Pradesh, Uttaranchal, Haryana, Andhra Pradesh, Karnataka, Uttar Pradesh, Rajasthan, Maharashtra and Kerala and in different commodities like soyabean, wheat, coffee, aquaculture etc. ITC firstly launches e-Choupal at the pilot stage in a state, this amount to 50 to 100 e-Choupals. ITC e-Choupal' services today straighten to more than 3.5 million farmers cultivating a range of crops - soyabean, coffee, rice, wheat, pulses, shrimp - in more than 38,000 villages through nearly 6500 kiosks across the states in India.

The e-Choupal model has been specifically designed to tackle the challenges posed by the unique features of Indian agriculture, characterized by fragmented farms, weak infrastructure and the involvement of numerous intermediaries, who block critical market information from passing to the farmers and use that information for getting a big margin for themselves. But e-Choupal sets things in order as it smoothens the flow of information to the farmers by disintermediating intermediaries from

the chain of information flow and at the same time leverages the physical transmission capabilities of the them as they deliver critical value at every link for a very low cost in a weak infrastructure environment. The structure of e-Choupal network is shown in Figure 1.

The project e-Choupal is an ICT platform for carrying out trade at a number of locations. In this, ITC sets up a back-up physical service support at the village level, called Choupal, through Sanchalak: a lead farmer, who acts as the interface between computer and the farmer. ITC accumulates information regarding weather, modern farming practices, and market prices from sources like Meteorological Department, Agri-universities, mandis (regional market) etc., and uploads all information on to e-Choupal web site.

All information is customized according to local farmer's needs and provided into the local language through computer set up established by ITC in Sanchalak's house. As one observes in above (figure 1) that Sanchalak accesses this information and facilitates its dissemination to farmers which is generated through

the information gathered from Dept. of Agriculture (GoI), Universities, *Indian Meteorological Department* (IMD), input firms, stockist, retailers and many more. Information regarding weather and scientific farming helps farmers to select the right crop and improve the productivity of their farms. Availability of market information helps farmers to become market oriented. They know what price ITC is quoting and the price prevalent in the local market (Mandi), thereby helping better price realization for farmers.

ITC's example also shows the key role of information technology, in this case provided and maintained by a corporation, but used by local farmers in helping to bring about transparency, to increase access to information, and to catalyse rural transformation, while enabling efficiencies and low cost distribution that make the system profitable and sustainable. ITC has been successful in making the farmer feel the sense of ownership and encourage them to generate additional revenue by eliminating middleman. Participating farmers have been able to enhance their income and eliminate the delay in getting the payment once the product is sold. It has helped in reducing debt burden of the farmers. The success of e-Choupal has given new lessons to the government agencies and corporates in the country. By embarking on this initiative, ITC has shown that ICT platforms can benefit even the farmers and rural India.

6.2 Supply Chain Framework of Reliance Fresh (India)

Reliance Fresh was the first foray into retailing by behemoth known as Reliance Industries Limited. Reliance Fresh is somehow different from business model of ITC e-Choupal mainly in terms of use of information technology working as a tool for increase in productivity by assisting farmers, which is major part of ITC e-Choupal model but for the Reliance Fresh it is more about procuring the material, processing it then distribution to various retail outlet for timely availability of the food produce in most efficient and effective form by utilisation of information technology in best possible way. Reliance Fresh launched by opening retail stores in Hyderabad on November 2006 opened 12 "Fresh" outlets in Chennai increasing the total store count to

40. Reliance was testing its retail concept by controlled entry, beginning in the southern states.

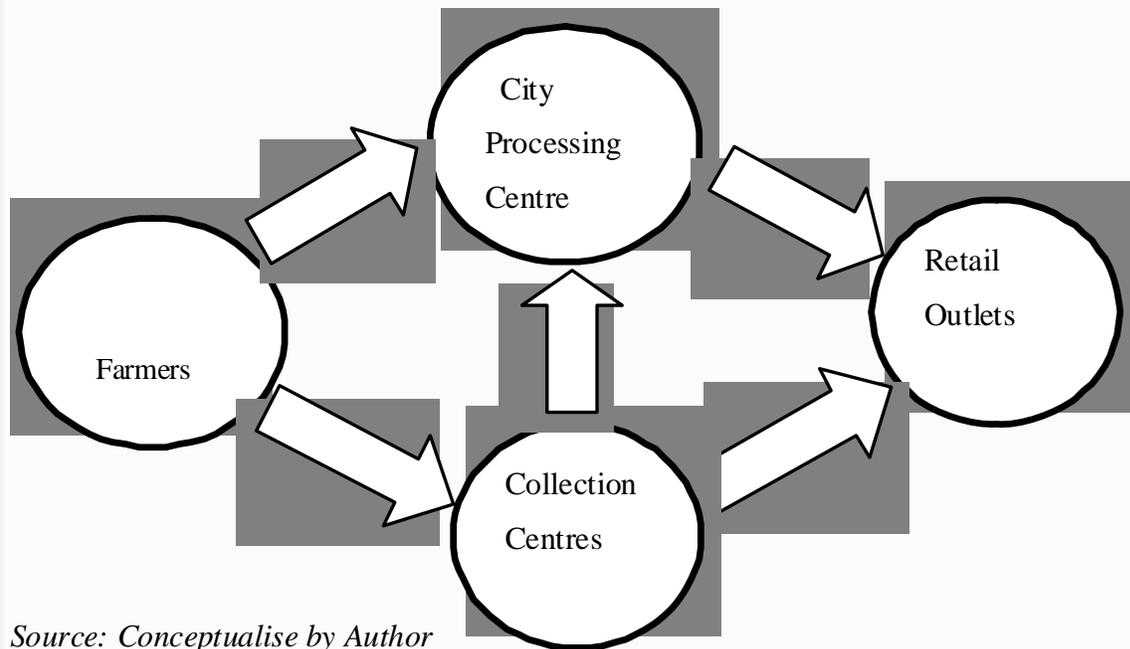
There were three basic reasons for Reliance Industries Limited (RIL) choosing foods and vegetables for entering into retailing sector as Reliance Fresh. First, it wanted to go after the very core of the great Indian retail opportunity in terms of agricultural based business. Second, its aim was to build a high-profitability business and food was perhaps the best place to start. Third, the grossly inefficient food supply chain provided a well-resourced and well managed organization like RIL with an opportunity for amending the flaws which would also make business sense and to materialise that it has increased the number of stores till June 2013 to around 1,500 from 1,150 in 2010.

As it (figure 2) suggests that source have been the farmers and City processing centre and Collection centres works as intermediary part of chain to avail the produce at retail outlet. Farmers also see advantage of quantity procurement by Reliance Fresh of vegetables they need from them and they can go there and get there consignment graded at their collection centre. The centre would get the price-band and quantity of vegetables it needed to collect that particular day. Reliance Fresh provides a good example of a successful case, depicting improvement in the economic conditions of the farmers through their network, rising income levels and more opportunities.

Both ITC e-Choupal and Reliance Fresh model operates on a very small scale, and is able to meet the administrative and infrastructural constraints to be a successful model. If this supply chain model is expanded, then the viability of it largely depends on the integration of variables and development of agricultural infrastructural facilities. By embarking on this initiative, ITC has shown that ICT platforms can benefit even if the marginal farmers.

Since the rural economy in India or, for that matter, in any developing country, has very strong linkage with agricultural economy, the major thrust of these initiatives has been the agriculture and allied sectors. But integration between these models is lacking due to inadequate coordination among various sub-system in supply chain. The Government of India (GOI) has

Figure 2: Reliance Fresh Supply Chain Framework



Source: Conceptualise by Author

formulated an ambitious National e- governance plan (NeGP) which identifies 25 mission mode projects including agriculture to be implemented through different ministries at the centre well state level. All these supply chain initiative share the common objective of empowering Indian agriculture to take the right decisions related enhancement of productivity, realisation of revenue and improvement in their overall performance.

7 Integrated Value Supply Chain for Indian Agriculture

Food supply chain management refers to the process whereby the movement of agro based product(s) from the initial supplier to the ultimate user occurs with all non-value adding expenses. Usually supply chain management is between partners such as a retailer and a preferred supplier, or a restaurateur and a preferred supplier of a particular ingredient. From a supplier's perspective, supply chain management can mean more than this. It means that with due care, one can actually provide the needed produce to penultimate user with a lower cost. Successful supply chain management can be summed in the one phrase; detail, detail and detail.

In reality it means studying in detail the entire process from harvest to the penultimate user. In doing so, all steps and costs should be established. After that, it is a matter of establishing what economies can be exercised along the way to the benefit of all the stockholders. And one needs to apply that and adapt that in slightly different way for perishable agriculture produce.

Despite the changes in the global and domestic scenario, poverty and food insecurity continue to haunt millions of Indian citizens. With about 30 percent of the population being poor and about 20 percent of the population being under-nourished, the need for ensuring food security for all remains of paramount importance. Along with that is the continuing need to stabilize food price and supplies as a means to achieve household level food security. The changed circumstances of today provide opportunities to design new instruments for a more efficient and welfare improving foodgrain management system, in which consumers benefit from stable prices even as the interests of the farmers do not suffer.

The production of agricultural commodities has

substantially increased in the country over the decades due to continuous efforts made by the government in terms of technological intervention at different level of production system, coupled with its price support policy. The production, supply and distribution of many agricultural commodities are mainly influenced by government regulations. In the process of economic liberalization, it has been felt that there is need to re-orient policies and regulations related to agricultural commodities. In response to this, the government has initiated agricultural policy reforms related to the production and marketing of agricultural commodities. Although, the pace of this reform process is very slow. Besides, there are numerous rules and regulations, and the infrastructural gaps, which are hindering the smooth flow of agricultural commodities from farm to fork. A lack of integration from various stakeholders in the supply chain leads to inefficiency in the agricultural system, causing high post-harvest losses, quality deterioration, high cost of commodity transfer, information symmetry and lack of transparency. Each participant of chain acts independently with little and no collaboration in physical and information flow (Mittal and Mukherjee, 2008).

The consumption basket of Indian consumer is changing as a shift is noticed towards the high value commodities. Therefore India needs intensive and diversified farming to address new challenges for sustainable production and processing practices that promote the balanced approach to the problems of food quality, safety, and environmental management.

Due to high level of government regulations, the investment in the organized private agribusiness is low. The new corporate entries are not just participating in the chain to source there required material, (mainly indirectly from the farming community) but they focus more on the primary source of agricultural produce particularly farming community through contract farming and tools by procuring agri produce from farmers. In the context, development of direct linkages with farmers will attain greater importance. It is important that the corporate participants in agribusiness chain have an understanding of supply chain, right strategy and leadership. Indian agriculture also needs

more public investment and policy support in several areas to overcome prevailing structural weaknesses such as low scale of operations, high post-harvest losses, poor state of rural infrastructure, lack of product diversification, inadequate research and development (R & D) spending, low productivity, absence of marketing infrastructure and inadequate financial support.

Modern agriculture is highly knowledge intensive and increasingly information driven, under which each participant in supply chain yearns for timely and accurate information for various decision. Therefore, knowledge and information are important factor for accelerating agricultural development by increasing agricultural production and improving marketing and distribution efficiencies. In addition to connecting small farmers and artisans to markets, ICTs also facilitate most agricultural decisions such as what to cultivate, how to cultivate and harvest, when and where to sell, and at what price to maximize the returns. Effective decision making related to all these aspects ultimately determines the efficiency of supply chain (Rao, 2007). Therefore, a proper information flow among stakeholders of any business activity is the key for strengthening supply chain efficiency. The rapid and innovative developments in ICTs can provide immense opportunities to public as well as private sector agencies to integrate these technologies in their supply chain systems. ICTs are especially useful for dissemination of information, provision of services, and enabling various transactions and awareness creation among the rural masses far removed from the government. ICTs provide modern, effective and speedy modes of communication that convey new resources of knowledge and information to society.

Strengthening vertical relationships between various stages of production and processing in the agribusiness sector has always been an important area for empirical analysis by researchers and policy makers across the world. However, the pace of change in supply chain integration and responsiveness of production system towards a market driven approach is slower in India compared to elsewhere in the world (Haan et al., 2003). Farmers are still more comfortable growing traditional crops, particularly rice and wheat, as they have already

discovered the market for their marketable surplus- be it a government procurement arrangement or private local traders. But the shift in market demand needs a balancing approach to meet the supply of deficit commodities such as pulses, oilseeds and high value food items. This balancing in demand and supply can be ensured by strengthening buyer- supplier relationship efficiently, and by disseminating of accurate and timely information to all the participants of the business chain (Mittal and Mukherjee, 2008).

8 Issues and Opportunities in Agricultural Supply chain

Agriculture is inherently a fragmented and unorganized sector involving a diverse range of distinct stakeholders such as inputs supplier, farmers, traders, commission agents, processors and distributors. As compared to developed countries, the Indian agriculture supply chain is far more complex and difficult to manage because of its unorganized nature and a large number of intermediaries (Sachan et al., 2005). The enormous wastage of agri- produce annually is due to gaps in basic infrastructure, which leads to instability in prices and low realization of prices by the farming community. Another important reason for inefficient supply chain is the inadequacy of logistics infrastructure, i.e. roads, railways, airport, seaports, information technology, telecommunications and energy production, which is poor as compared to other developed and developing countries (Sahay and Mohan, 2003).

The agriculture supply chain suffers from inefficiency at every stage. Lack of proper infrastructure for procuring agricultural produce from the farm gate to the consumer has led to huge losses in transit. The farmer hardly benefit from any price rise while the many layers of intermediaries enjoy high margins. Even when farmers are forced to sell their produce at throwaway prices in times of bumper crops, prices at retail level remain higher by many multiples. This has also lead to large mark- ups in pricing due to extra layers of intermediaries. Cumulative wastage in agriculture supply chain is estimated to be around US\$ 11 billion, or 9.8 percent of the agricultural component of the GDP (Ahya, 2006). About 25-30 percent of agricultural production gets

wasted due to improper handling and storage, pest infestation, poor logistics, inadequate storage and lack of transportation infrastructure (Sachan et al., 2005). Apart from this, only a small quantity of agricultural production is processed for value addition. Efficiency in food production is very low and this is mainly due to inefficient sourcing of raw material, which is the major part of processing costs (Ali and Kapoor, 2005). To assess the critical issues at each level of agricultural supply chain, the agricultural system can broadly be categorized in to five sub-systems- agricultural input, agricultural production, food processing, distribution and marketing, and consumer demand.

A sustained increase in agricultural production and productivity is largely dependent on the continuous development and use of modern agricultural inputs such as seeds of a better quality, fertilizers, pesticides, farm implements and machinery. Due to a fragmented input market, farmer faces numerous problems in acquiring quality inputs on time and a reasonable price. Policy reforms introduced during the late 1980s have attempted to encourage greater private sector participation in the agricultural input industry, which has stimulated a noticeable increase in investment in plant breeding research and seed production (Singh and Morris, 1997).

The price support system was introduced by government in 1965 by setting up Agricultural Prices Commission (APC) now renamed as Commission of Agricultural Costs and Prices (CACP). This provided the opportunities to farmers to sell their produce on MSP if the market price dropped below the MSP for that commodity. The government is supposed to procure all agricultural commodities for which MSP has declared in such situation. The basic objective of food grain procurement by government agencies is to ensure remunerative prices to producer and reasonable prices to consumers, and to maintain price stability in market (Jha and Srinivasan, 1999).

Agriculture can realize its full potential by applying the principal of supply chain management by strengthening the collaboration between various stakeholders, non- exploitative vertical and horizontal integration, market reforms, precision farming, contract

farming, demand-led diversification, and the extensive and intensive use of information technology for real time communication across the chain (Balakrishanan, 2006).

The nature of the integration model is an implementation issue that needs to be addressed with a view to consumer's needs and other variables such as industry and market characteristics. One theme that appears to hold constant throughout the literature in this area is the importance of taking a holistic view, and the systemic nature of interactions between the participants. The recognition of the interdependence of all partners in a supply network appears to be an important catalyst for effective integration. In this sense, organizations moving to implement integrated supply chain management systems could be seen to be formalizing strategies to better manage this inter-dependence, and to leverage it to mutual advantage. At the same time, it is also apparent that this requirement to take such an holistic and systemic view of the supply chain acts as an impediment to more extensive implementation. The strategic nature of adopting a supply chain-wide perspective, on the one hand provides significant potential benefit, and on the other requires trading partners to think and act strategically. The challenge for developing more effective and integrated networks is to encourage such a mind-set, and use it to promote adoption and implementation of enabling technologies and methods. In other words, this review of the literature serves to highlight the inter-dependence between integration (technologies, logistics, and partnerships), a strategic view of supply chain systems, and implementation approach. All three need to inform and underpin each other in order for management of supply chains to be able to deliver on the promise of benefits for all trading partners.

Economic reforms and liberalization in the agriculture sector has emphasized the need for transforming Indian agriculture by designing agricultural supply chain model covering innovations at farming levels, which can help farmers regain profitability in a sustainable manner under changing conditions with proper assurance of market arrangements (Rao and Punwar, 2004). The reforms in agricultural marketing system to ensure participation for establishing direct

linkage with farmers, capacity building and infrastructure development in regulated markets, extension of road network and transportation, storage and warehousing, market intelligence system, introduction of commodity by establishing commodity are some important areas of interventions, but the changes are taking place at a very slow pace.

For establishing an efficient and effective supply chain system in the Indian agriculture, there is an urgent need to improve the functioning of regulated markets and amend the APMC Act by the all state government as per the model act on agricultural marketing suggested by the central government to ensure private participation in supply chain system in an organized and legal manner. This will enable private agro processing units and business operators to link themselves with farming community directly, eliminating multiple intermediaries. For increasing efficiency in food processing segment, the process of raw material sourcing needs to be redesigned in an efficient organizational framework with proper backward linkages. The emergence of agribusiness activities and food retailing are providing both opportunities and challenges to policy makers. There is need to asses all the existing policies affecting the agricultural supply chain and modify them as per the requirements of market forces, with proper regulatory mechanisms to protect the interest of all the stockholders in the chain.

9 Further Research Opportunities

As our assessment indicates, there is a lack of empirical research on the significance and benefits of food supply chain management. Although a majority will agree to the importance and potential benefits of it, somehow food supply chain management does not seem to occur often enough in practice. Organizations appear to have significant difficulties in evolving from theory to the successful implementation and practice of supply chain management. This is a crucial yet challenging dilemma to solve. In many cases, food supply chain does not have seamless chains, optimized flows, or networks of integrated organizations. In reality, the frameworks and their corresponding terminologies, once more elaborately illustrated, ultimately are dealing with companies trying to make dyadic relationships better.

Therefore, Indian agriculture need methodical approaches to the implementation of supply chain system and we need sound empirically based research to continue and develop the field and to explore the concepts related to supply chain. It will require significant efforts, applying both qualitative and quantitative research projects to further develop these concepts in order to advance both practical applications and academic theories.

As above points emphasise on need of greater problem oriented and issue based research which employs integrated approaches to solving postharvest issues, apart from missing links in our understanding and implementation of food supply chain, postharvest technology, proper linkages must be established in agriculture and processing sector. Innovations in postharvest technology and particularly in the development of infrastructure could help achieve this goal. The processing of fruits and vegetables for export and for domestic markets requires utmost attention in developing country like India. Waste generated by processing factories must be put to profitable usage, either through conventional technologies or through the adoption of biological processes (Verma and Joshi, 2000).

One additional aspect that requires discussion is the challenge in designing, developing and managing cross-organizational processes when organizations are still struggling with internal process management. Few, if any, examples exist of truly process-oriented organizations. Yet process management is, in many ways, mentioned as a prerequisite for supply chain management.

The need for further research to capture both the characteristics of successful implementation, and the factors determining the level of implementation is captured by Akkermans (1999) when he states:

. . . the Supply chain management literature has shown very little empirical evidence of successful strategic moves towards supply chain management [and later] . . . we do not yet have causal relationships between the various factors driving effective supply chain management and their interrelations with performance

improvements in areas like inventory management, supply chain costs, and customer satisfaction.

There has been some research into a range of barriers to extensive adoption, particularly with regards to cost, ease of implementation and conflicting standards being identified as restricting wider use. An emergent theme in the literature is the discussion of implementation in terms of extent (i.e. formal organizational links with suppliers and customers, application ICT tools to incoming goods, formal agreements with suppliers, etc.), focus (overall strategic plan), and expected benefit (source of competitive advantage). There is an opportunity to pursue a range of questions. What is the true extent of implementation of techniques and methodologies used for the management of the supply chain? Do organizations that implement supply chain management techniques progress from a basic implementation to a more extensive one over time? Are there significant geographic and demographic factors that impact on the decision to implement such as company size or industry sector? Can companies be distinguished from one another on the basis of this extent of implementation model? How Food Corporation of India (FCI) has been coordinating among its different sister units and different scheme run by government of India. All the different aspect of PDS and contract farming is subject with desire of further more research work. Given the apparent contradiction in the literature between promised benefits and still limited evidence of extensive implementation, the examination of factors creating and reinforcing this apparent gap would appear beneficial.

10 Conclusion

While exploring the subject of food supply chain in Indian agriculture one can say upliftment and integration of agricultural system is utmost important. There is also lack of emphasis on both formal and informal risk management options available, although in practice, most analytical attention will focus on the scope for improving or supplementing formal mechanisms, including institutional and financial arrangements, technological changes, adoption of improved management practices, and/or investments in infrastructure. To the extent that the government is mainly focused on the position and

welfare of poorer farmers, then greater attention would need to be given to alternative informal mechanisms and improving their efficacy. Study also suggests that there is lack of attention paid to areas categorized as 'high vulnerability', either for individual chain participants or the chain as a whole. Research towards agricultural infrastructure and supply chain has not given its due and that should be undertaken on the needs/options for policy and regulatory reforms that affect farmer/agro-enterprise risk management as well as the possible revision/reform of governmental risk management instruments. Aspects like cold chain needs to be given more consideration as it could result in the reduction of losses and retention of the quality of horticultural produce. While the introduction of a cold chain facility nationwide due to

some institutional, structural and financial constraints may not be immediately possible in India, attempts must be made to develop a cool chain. Usefulness of ICT is well established in improving productivity of Agricultural sector and this need to address by authorities. Food loss reduction is less costly than an equivalent increase in food production. If efforts are not made to modernize the harvest handling system for horticultural crops, then postharvest losses will continue to have a negative economic and environmental impact. There is no doubt that postharvest food loss reduction significantly increases food availability. An efficient collaboration between stakeholders will reduce risk, losses and greatly improve the efficiency to ensure food security and development.

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INDIAN FINANCIAL MARKET – WITH SPECIAL REFERENCE TO DERIVATIVE TRADE IN NSE

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Abstract

Indian financial market is one of the fast growing markets in the world and derivative trade is one of the important constituent of it. The study is based on the growth and development aspect of various types of derivative in India during the last decades. The objective is to know the proportion and position of various components of derivatives among the total derivative trade and exploring the reason behind it.

Keyword: Option, Future, Badla System.

Introduction

The financial markets act as a link between these two different groups, so that they can meet and transact with each other. It facilitates this function by acting as an intermediary between the borrowers and lenders of money. It consists of individual investors, financial institutions and other intermediaries who are linked by a formal trading rules and communication network for trading the various financial assets and credit instruments.

It is well recognized that efficient and developed financial markets can lead to increased economic growth by improving the efficiency of allocation and utilization of savings in the economy. Many studies at various level prove this strong, positive link between the functioning of the financial system and long-run economic growth. India is one of the five countries classified as big emerging market economies by the World Bank.. The World Bank has predicted that these five biggest emerging markets' share of world output will have more than doubled from 7.8% in 1992 to 16.1% by 2020. On account of its size and improved economic performance

in the last decade or so, India is contributing significantly to the increase in trade and economic activity, and thus to world economic growth. Hence it is important to look at the manner in which financial development has occurred in India.

The most recent World Bank study updates and expands the financial development and structure database. This database has selected a number of financial system indicators (around thirty) including:

- i) Indicators for the size of the financial system, including liquid liabilities to GDP, currency outside banking system to base money, financial system deposits
- ii) Banking system indicators for size, structure, and stability;
- iii) Indicators for capital markets and the insurance sector; and
- iv) International debt to GDP & remittance inflow to GDP.

Here in this context, the article is focused on capital market indicators particularly the growth and development of Derivative trade in India in last decades.

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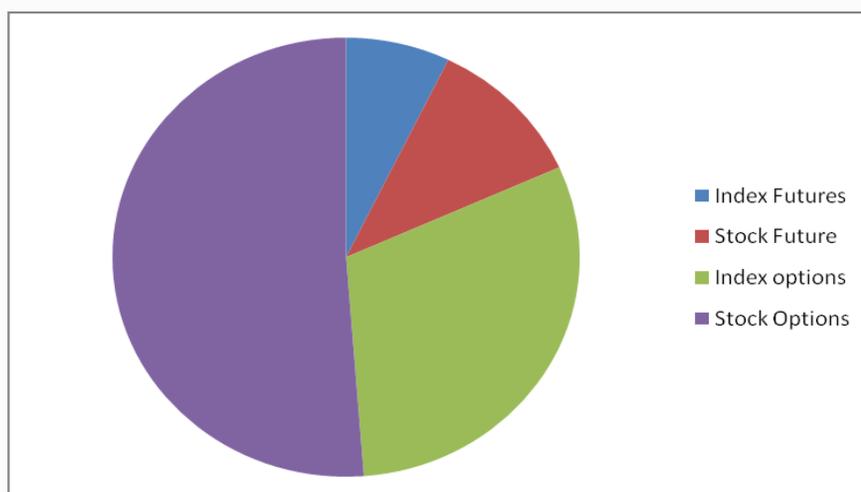
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Total Derivative Trading in NSE (From 2003 to 2015)

Year	Index Futures	Stock Future	Index options	Stock Options	Total
2003-04	554,446	1305,939	52,816	2130,610	4,043,811
2004-05	772,147	1484,056	121,943	2546,982	4,925,128
2005-06	1513,755	2791,697	338,469	4824,174	9,468,095
2006-07	2539,574	3830,967	791,906	7356,242	14,518,689
2007-08	3820,667.27	7548,563.23	1362,110.88	13090,477.75	25,821,819
2008-09	3570,111.4	3479,642.12	3731,501.84	11010,482.2	21,791,738
2009-10	3934,388.67	5195,246.64	8027,964.2	17663,664.57	34,821,264
2010-11	4356,754.53	5495,756.7	18365,365.76	29248,221.09	57,466,098
2011-12	3577,998.41	4074,670.73	22720,031.64	31349,731.74	61,722,433
2012-13	2527,130.76	4223,872.02	22781,574.14	31533,003.96	61,065,581
2013-14	3083,103.23	4949,281.72	27767,341.25	38211,408.05	74,011,134
2014-15	3925,554.7	7957,844.19	38039,530.89	53119,457.61	103,042,387
Total	34,175,630.97	52,337,536.35	144,100,554.6	242,084,455	472,698,176.92

Sources: SEBI Annual Report.

Derivative Trading – NSE, A pictorial representation



SOURCES: NSE website; the calculation is based on data compiled from NSE.

Development of Derivative Market in India

A derivative security is a financial contract whose value is derived from the value of something else, such as a stock price, a commodity price, an exchange rate, an interest rate, or even an index of prices. Since 1875 Bombay Cotton Trade Association had started future trading. In 1952 Govt. banned cash settlement and option trading and derivative trading shifted to informal forward market. In recent years, the Govt. policy has changed. Since 2000, the ban on Future trading on many commodities had been removed and National commodity exchange has been created. There was a “Badla” system prevalent in equity trading market. This system was to improve some element of forward trading as they were allowed to carry forward their position for next settlement cycle. There was not a fix expiration date, contract terms and margin requirement were not standardized, which led to many malpractices. So it was prohibited and finally SEBI banned it for goods in 2001. In 1993, Government created NSE, a national stock exchange, which improved the efficiency and transparency of the stock market by offering online trading system and real time system. In 1995, ban on trading option was lifted. On the report of L.C. Gupta and J.R. Verma committee, derivative trading has been legalized phase wise. In 1999 SCRA ACT-1956, was amended and derivative was also considered as “securities”. The amended act treated derivative trading legal, if it is being traded through stock exchange. In this way, finally ban on derivative trading lifted.

Interpretation on growth of each type of derivative

The growth of derivative trade has been started in 2003-04 and total trade in that year was 4043811 crores which has increased by approx 25 times till 2014-15 and has reached 103042387 crores. This is a tremendous growth which shows how rapidly our economy is progressing. But it has been observed that most of the trades are being done in option derivatives. Stock option in itself has occupied approx 50 % share in total trade. If we combine stock option and index option then their combined share in total derivative trade have increased

upto 88 % in 2014-15. From 2003-04 the share of stock future among total trade was on an average 30 % which has become just half in 2008-09 and every year it is going down and has touched its low 6.6 % in 2011-12. In the year 2014-15 it has slightly improved and was 7.72 %. The share of index future among total derivative – trade is also going down from 17 % in 2006-07 it has reached 3.81 % in 2014-15.

Findings & Suggestion

Despite encouraging growth and developments, industry analyst feel that the derivatives market has not yet, realized its full potential in terms of growth & trading. Analysts points out that the equity derivative markets on the BSE and NSE has been limited to only four products- index futures, index options and individual stock futures and options, which in turn, are limited to certain select stocks only. Although recently NSE and BSE has added more products in their derivatives segment (Weekly Options, Currency futures, Mini Index etc.) but still it is far less than the depth and variety of products prevailing across many developed capital markets. Liquidity and transparency are important properties of any developed market. A lack of market liquidity may be responsible for inadequate trading in some markets. It requires regulatory reform to boost derivative trade. Credit derivative (Popular in other country) are absent in India. It requires Govt. attention for regulatory action to develop. It requires awareness in investors and for that NSE has to launch awareness program to educate investors/brokers/dealers.

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A STUDY OF DEVELOPMENT COMMUNICATION IN PLANNING IN NORTH EASTERN STATES WITH SPECIAL REFERENCE TO MIZORAM.

A K Sharan

Abstract

"ICTs cover Internet service provision, telecommunications equipment and services, information technology equipment and services, media and broadcasting, libraries and documentation centers, commercial information providers, network-based information services, and other related information and communication activities ". "Information and communication technology (ICT) may be regarded as the combination of 'Informatics technology' with other related technology, specifically communication technology ". Today's markets are seamless, and rather twenty-four hour. The markets today have become global. It would be certainly interesting to note that the government is one of the important players in the market. Be it financial market, market for goods and services, the government always remains a strong economic agent. This is amply seen much more in terms of government's sincere endeavours to promote 'Public-Private Partnerships'(PPPs) in the areas of not only infrastructure but also in social marketing areas. North-East region has potential to be at a par with major metropolitan cities in India. But the markets in the north-eastern states are still far below by any yardsticks of modern markets though the north-eastern states have impressive and potentially huge consumption potentials not only of the agricultural produce but also of modern goods and services.

Investments in the north-eastern region have shown dismal improvements, if any, in terms of investment climate. The north-eastern states require a robust communication network to exploit its vast potentials of tourism, marketing along with consumption and production. North-eastern states have the resilience to adopt several State-specific Mission Mode Projects which are in sync with the need for economic development within them. Agriculture, the mainstay of the people of Mizoram, employs over seventy per cent of the population. The natural resources offer opportunities for growing a variety of horticultural crops. The Socio-Economic Backbone of Mizoram is its mountainous region. Mizoram has large number of small scale industries selling attractive bamboo works, and handloom apparels, contributing to the state economy. The main mineral in Mizoram is hard rocks which are chiefly utilized for building materials and road construction work. There are impressive potentials in bamboo crafts and readymade garments made out of specially designed local handloom clothes which can be exported outside India. The picturesque and soothing weather is quite befitting for the development of tourism industry.

The State of Mizoram has decided to provide effective communication with sound e-governance plan. This plan is aimed at ensuring developmental goals. The larger ambit of development through efficient communication technology would meet the market challenges as well. In the initial stages the government would attend to the judiciary, consumer grievances, tendering, indirect taxation, transport and market price in a wider manner. Though the undulating terrain has been a severely constraining factor yet the State

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Government of Mizoram successfully endeavoured to well connect the sub-division offices and district headquarters to the capital. The State Government of Mizoram in collaboration with National Informatics, Government of India has established, operationalised smart network of IT based administration that is bound to improve governance by way of facilitating a faster communication within and outside the State.

Creation of a State Data Centre (SDC) as one of the strategic core for supporting e-Governance Initiatives of National e-Governance Plan (N-eGP) has been a bold and timely initiative. Mizoram has been successful in invoking and dispersing IT culture in the state. The Government of Mizoram has taken several initiatives in terms of in facilitating and promoting e-government in various sectors such as Transport, Land Record, Public Health Engineering, Accounts and Treasuries, etc. 'Sarathi' and 'Vahan' are complete solutions to the District Transport Office computerization including Registration, Licensing, Permit and Enforcement, Tax & Fee collection, etc. The Government launched in 2000 the CIC project with a view to extending advantages of world-wide connectivity using Internet for bridging the gap between the region and the national mainstream.

There are other initiatives of the State Government along with National Informatics Centre (NIC) in several areas of communication and development. Today Mizoram has an impressive e-governance and communication infrastructure. SDCs would be expected to provide efficient operational & managerial control while and broadly minimize the cost of Data Management, IT Resource Management, Deployment and other costs. A blueprint of the e-governance and communication advancement in the State of Mizoram includes establishing VC studios in all the districts of the state, establishing NIC District Centres at remaining districts, installing new CICs, implementing Vahan and Sarathi at the remaining DTOs, issuance of SMART CARD based Driving License to public, training to generate awareness of e-Governance initiatives of the central and the state government, effectively designing and developing Mizoram State Portal, initiating Rural Intranet.

Key Words : *Development, Communication Technology, e-Governance*

"... .. communication is a purposeful activity of exchanging information ... across space and time using various technical or natural means, whichever is available or preferred. "

Communication always entails a communicator (government, business or citizen) a content/a communique (date, other information), a conduit (means, medium, technology) and a corner (the recipient) where the communication is finally dumped, analysed and reverted back, if needed. The receiver of the information may/mayn't be aware of such communiqué; and may/mayn't actually use and/or analyse such a communiqué. Communication has the visible characteristics to qualify for temporal, inter-temporal, and intra-temporal challenges.

"ICTs cover Internet service provision, telecommunications equipment and services, information technology equipment and services, media and

broadcasting, libraries and documentation centers, commercial information providers, network-based information services, and other related information and communication activities ". "information and communication technology (ICT) may be regarded as the combination of 'Informatics technology' with other related technology, specifically communication technology ".

In the context of 'good governance and responsive and value based administration' the role of communication, backed by an apt technology, has been ever rising. Whether it is social advertising, or government's social message, or intent of the government towards attracting people's cooperation in framing and shaping its policies it is required that a real-time communication is not only out reaching but also undistorted and worth archiving. Given the challenges of 'New Public Administration', which has created a lead

²UNESCO Report 1999.

³UNESCO Report 2002.

that enshrines a 'potential market economy' it would be essential for public and private media to help create and create and nurture markets. It was once commented by noted economists that 'more of markets don't mean less of government, it means a different government' .

Today's markets are seamless, and rather twenty-four hour. The markets today have become global. It would be certainly interesting to note that the government is one of the important players in the market. Be it financial market, market for goods and services, the government always remains a strong economic agent. This is amply seen much more in terms of government's sincere endeavours to promote 'Public-Private Partnerships'(PPPs) in the areas of not only infrastructure but also in social marketing areas.

All the developmental endeavours of the government rest upon (a) how the appropriate technology is reigned in; (b) how campaigns are successfully launched to make people in rural and urban areas technology savvy; and affordable technology is made accessible to the common folk, besides government officials.

North Eastern Region: Select Glimpses

North-Eastern states are fast emerging important catalysts in promoting leading e-commerce companies. However, the hilly region and the constraining road and flight links have emerged as severe bottlenecks for firms and companies in adopting north-eastern region as potential markets. There is excess demand for goods and services, both north-eastern states are still far below by any yardsticks of modern markets though the north-eastern states have impressive and potentially huge consumption potentials not only of the agricultural produce but also of modern goods and services. 'North Eastern Regional Agricultural Marketing Corporation (NERAMAC) under the Ministry of Development of North Eastern Region has been supporting farmers / producers of north-eastern region in getting encouraging prices for their output and narrow down the gap between the producers and the market. This is expected to promote the agricultural, procurement, processing and marketing infrastructure of the North Eastern Region of India.

Investments in the north-eastern region have shown dismal improvements, if any, in terms of investment

climate. The report of Department of Industrial policy promotion reveals that the Impact of the North-East Industrial and Investment Promotion Policy (NEIIPP) 2007 in all the eight states of the North-Eastern Region has been reported not so impressive. The Industrialisation in north-eastern region when compared to India suggests a bleak follow forward. Assam is reportedly the state with the maximum amount of investment intention, which culminated their investments only up to 0.7% of the total investments in the entire country. Thus, one can see that Industrialisation in north-eastern region has not progressed. It can be ascertained that NER needs industrial development' .

In the recent years the states in the north-east have certainly come up in improving their communication technology and communication network backed by specific endeavours of the Ministry of DoNER . This is quite likely to improve investment and market opportunities in north-eastern region.

The north-eastern states require a robust communication network to exploit its vast potentials of tourism, marketing along with consumption and production. However, this in turn requires a clear vision of the government in terms of application of a high-end technology to improve communication in the government itself. This would be expected to improve governance, which would reflect in an overall development of such states.

North-eastern states have the resilience to adopt several State-specific Mission Mode Projects which are in sync with the need for economic development within them. Specific cases that require central assistance are considered on the advice of the concerned Line Ministries/ Departments.

To mention some, the Mission Mode Projects are in the following specific areas:

- " Agriculture
- " Commercial Taxes
- " District
- " Employment Exchange
- " Land Records
- " Municipalities
- " Gram Panchayats

⁴<http://en.wikipedia.org/wiki/Communication>.

- " Police
- " Road Transport
- " Treasuries

The governments in the north-east have clearly sensitized themselves about it and what now requires is implementation of their plans and policies. The communication network ought to be put into an effective and overarching manner covering all facets of the conduct of business, the corporate entities and the civil society.

Mizoram

Mizoram was one of the districts of Assam till 1972 before becoming a Union Territory. Mizoram received full statehood on 20th February, 1987 and became 23rd State of Independent India. The then Chief Secretary Lalkhama read out the proclamation of statehood at a public meeting organised at Aizawl's Parade Ground. The late Prime Minister Shri Rajiv Gandhi flew in to Aizawl to inaugurate the new state. Shri Hiteshwar Saikia was appointed as Governor of Mizoram.

The state borders Myanmar (east and south) and Bangladesh (west). Mizoram occupies an area of great strategic importance in the north-eastern corner of India. It has a total of 630 miles boundary with Myanmar and Bangladesh. Mizoram has richly diverse hilly terrain in the eastern part of India. Mizoram occupies an area of great strategic importance in the north-eastern corner of India.

Agriculture, the mainstay of the people of Mizoram, employs over seventy per cent of the population. Jhum cultivation is carried out annually by a large number of people living in rural areas. There is a well distributed rainfall of 1900mm to 3000 mm spread over eight-ten months annually. There is a varied soil type that contributes to a wide spectrum of rich and varied cultivation and landscaping.

The natural resources offer opportunities for growing a variety of horticultural crops. The Socio-Economic Backbone of Mizoram is its mountainous region. Mizoram has large number of small scale industries selling attractive bamboo works, and handloom apparels, contributing to the state economy.

The agro-climatic surroundings of Mizoram are

advantageous to agricultural and horticultural crops. A vibrant food processing sector ought, therefore, to play an important supportive role. The total production of fruits, vegetables and spices is on the rise and some farmers are dissuading from jhum cultivation for taking cash-crops. The rural people depend hugely on their material requirements of timber, food, fuel wood, medicinal plants etc. Nearly 95% of the interior population depends on herbal medicine whereas about 98% of raw materials are harvested from the wild plant resources. Their herbal preparation includes uprooting of the plants which is detrimental to the individuals or sub-populations. Commonly used and effective herbal plants have been becoming rare species while certain plants are on the verge of extinction.

The main mineral in Mizoram is hard rocks which are chiefly utilized for building materials and road construction work.

There are impressive potentials in bamboo crafts and readymade garments made out of specially designed local handloom clothes which can be exported marketing outside India. By providing necessary inputs, credit, design and marketing facilities, the potential of the handloom and handicraft industry can be creatively tapped.

The picturesque and soothing weather is quite befitting for the development of tourism industry.

Though Mizoram has a rich potential in hydro-electricity it doesn't have its significant power generation. Scattered through the State there are twenty two isolated diesel power stations and nine mini / micro hydel stations in operation. The installed capacity of diesel power station is 26.14 MW and mini / micro Hydel Station is 8.25 MW. As per 16th Electric Power Survey of India under Central Electricity Agreement (CEA) of the Government of India, the restricted peak load demand of the State during the year 2002-2003 is 102 MW. Against this, an effective capacity of about 16 MW from Diesel Power Stations and 6 MW from Hydel Stations is available from local generation at present .

The decentralized authority in administrative setup (district) is divided into one or more subdivisions, further divided into tehsils and blocks. There are eight districts

⁵UNESCO Report 1999.

⁶UNESCO Report 2002.

⁷ Dr. C Rangarajan in a seminar conducted by the Controller General of Accounts, Ministry of Finance, Government of India.

INDUSTRY	1993-94	1994-95	1995-96	1996-97	1997-98
1. Agriculture	27.73	29.38	24.65	27.45	27.56
2. Forestry and Logging	3.71	1.02	4.31	1.27	0.67
3. Fishing	1.66	1.15	1.13	1.25	1.26
4. Mining & Quarrying	0.12	0.24	0.24	0.24	0.45
5. Manufacturing					
5.1. Registered	1.1	0.92	0.67	0.63	0.65
5.2. Un-registered	1.64	2.24	2.46	2.5	0.93
6. Construction	7.09	10.92	10.83	11.36	10.62
7. Electricity, Gas & Water Supply	-39	-56	-40	-53	-0.01
8. Transport, Storage & Communication					
8.1. Railways	.0016	.0015	.0011	0	0
8.2. Transport by other means	.93	.89	.994	1.14	1.32
8.3. Storage	.0030	.0045	.0035	.004	0.04
8.4. Communication	.20	.198	.18	.16	.196
9. Trade, Hotels & Restaurants	16.47	14.41	16.07	14.61	15.36
10. Banking & Insurance	1.06	1.07	.01	1.15	1.29
11. Real Estate, Ownership of Dwellings & Business Services	11.33	11.6	10.28	10.29	11.5
12. Public Administration	15.22	15.39	14.55	15.19	15.89
13. Other services	12.10	11.13	12.9	13.26	13.42

Source: Sectoral Statistics, Government of Mizoram

Service Name	State	MMP	Category
DCIS	Mizoram	e-Courts	Government
Case Register	Mizoram	e-Courts	Citizen
Case Tracking	Mizoram	e-Courts	Citizen
Judgment	Mizoram	e-Courts	Citizen
Cause List	Mizoram	e-Courts	Citizen
Computerize and Network the Entire State Consumer Disputes, Redressal Commission	Mizoram	State Project	Government
Tender Publishing	Mizoram	e-Procurement	Government
Online VAT Returns Filing	Mizoram	Commercial Taxes	Government
Financial Challans etc.	Mizoram	Treasuries	Government
Vehicle Registration and Licence	Mizoram	Road Transport	Citizen
Market Price	Mizoram	Agriculture	Citizen
Election	Mizoram	State Project	Citizen
Issue of Passport	Mizoram	Passport	Citizen
Agrisnet	Mizoram	Agriculture	Citizen

⁸<http://india.gov.in/official-website-north-eastern-regional-agricultural-marketing-corporation>

⁹DIPP, Government of India Report.

¹⁰Development of North Eastern Region

in the State. The names of eight (08) districts viz. Aizawl, Kolasib, Saiha, Lunglei, Mammit, Champhai, Serchhip and Lawngtlai. The State has 26 blocks and 817 villages and has impressively high literacy rates. The population of Mizoram is 0.89 million (2001 census). The sex ratio of Mizoram at 935 females to 1000 males is higher than the national average of 933. It is situated on the extreme south of the north-eastern India.

The various sub-divisions posed great challenge before the State administration in terms of smarter e-connectivity and also in terms of maintaining an accessible and effective archive of such date. Analysing and acting upon the date did pose no less challenge.

The contribution of various departments of the State Government in the past has been a meagre one and in the case of various departments/sectors/sub-sectors it deteriorated as well. The table shows that mining & quarrying, construction, electricity, gas & water supply, transport by other means, storage, banking & insurance, real estate, ownership of dwellings & business services, public administration, and other services have increased contribution whereas the agriculture, forestry and logging, fishing, manufacturing, registered/un-registered units, transport, storage & communication, railways, communication, trade and hotels & restaurants have emerged as shrunken contributors. It is important therefore that sectoral links, inter-sectoral connectivity and administration of various sectors be provided with improved communication network to well connect inside the State of Mizoram besides connecting the State of Mizoram with the rest of the country,

State e-Organization, Initiatives and Challenges

The State of Mizoram has decided to provide effective communication with sound e-governance plan. This plan is aimed at ensuring developmental goals. The larger ambit of development through efficient communication technology would meet the market challenges as well. In the initial stages the government would attend to the judiciary, consumer grievances, tendering, indirect taxation, transport and market price in a wider manner.

The State has major challenges in terms of data mining, data warehousing besides appropriate analysis

of data. The set of challenges constraining the capacity building also include skill sets towards data-pooling, preparation of input-output table, estimates of gross fixed capital formation and time series analysis of available data. Such analysis serves as a handy intervention tool for achieving specific milestones of various national and international schemes, including Millennium Development Goals. As such the development communication is essential to the phases of good governance and market development. The cultural specificity of Mizoram vis-à-vis the rest of India poses new height of communication sophistication and communication completeness in terms of yielding desirable results of connecting various ends to implement composite developmental agenda.

The following table depicts vast network of e-enabled services within government and citizen categories:

Though the undulating terrain has been a severely constraining factor yet the State Government of Mizoram successfully endeavoured to well connect the sub-division offices and district headquarters to the capital.

The State Government of Mizoram in collaboration with National Informatics, Government of India has established, operationalised smart network of IT based administration that is bound to improve governance by way of facilitating a faster communication within and outside the State. The idea behind establishing such a communication network has been to (a) improve the outreach of the State Government; (b) improve the response-time of the government. The smart communication network of the State is seen in the corresponding chart which depicts meaningful data connectivity between and among various key departments of the State Government: The following departments for ensuring governance:

- Finance Department
- Planning and Programme Implementation Department
- Home Department
- General Administration Department

¹¹ Official Website of the State Government of M Mizoram.

- Agriculture Department
- Animal Husbandry & Veterinary Department
- Cooperation Department
- Department of Personnel & Administrative Reforms (DP&AR)
- Information & Communication Technology Department
- School Education Department
- Social Welfare Department
- Tourism Department
- Police Department

Creation of a State Data Centre (SDC) as one of the strategic core for supporting e-Governance Initiatives of National e-Governance Plan (N-eGP) has been a bold and timely initiative.

The State got initiated and facilitated a proper strategy and approach plan that included an approach that focusses on identifying, funding and implementing inter-departmental, cross-tier e-Government initiatives, evolving core applications with the ability to be used many times, ascertain go-getting electronic service carriage goals, a well-meaning approach with stronger political will, skill up-gradation and an upgraded trustworthiness of Information and communication (ICT), and adoption of *'open source system'*.

Mizoram has been successful in invoking and dispersing IT culture in the state. The Government of Mizoram has taken several initiatives in terms of in facilitating and promoting e-government in various sectors such as Transport, Land Record, Public Health Engineering, Accounts and Treasuries, etc. 'Sarathi' and 'Vahan' are complete solutions to the District Transport Office computerization including Registration, Licensing, Permit and Enforcement, Tax & Fee collection, etc. Various training programmes have been organized for the officials of the Transport Department to acquaint them with the different modules of the software. In addition a VSIS - Vehicle Statistics

Information Systems has been developed for collection of various reports required annually by State Transport Authority.

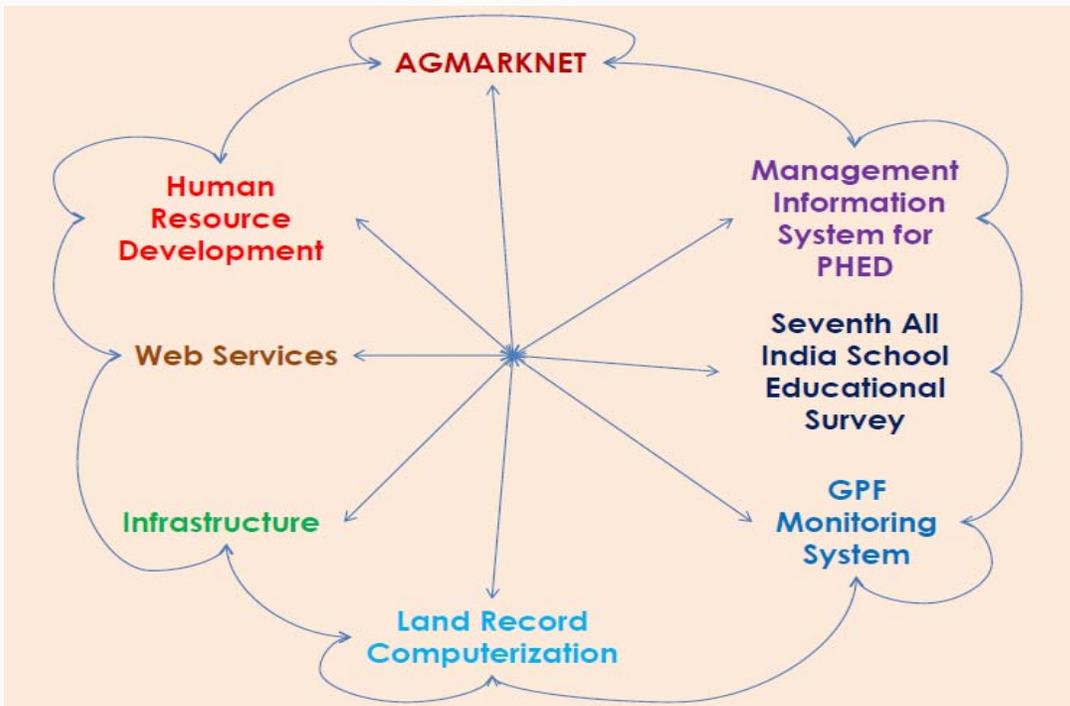
The Government launched in 2000 the CIC project with a view to extending advantages of world-wide connectivity using Internet for bridging the gap between the region and the national mainstream. CICs is also focussed towards evolving and implementing IT-based citizen-centric solicitations. There are about over 20 CICs in the State, equipped with Computers, VSAT, TV, web cameras, printers, UPS, etc. and managed by two skilled and qualified operators. The CICs provide multiple services including (a) e-mail, web browsing and document printing; (b) imparting IT training to the villagers, school students, staff of BDOs, etc. on computer fundamentals and IGNOU/DOECC courses; (c) ICT support to district and block administration for office automation; (d) G2C services such as support for BPL Survey, Village Council Elections, publication of tenders, notifications, etc.; (e) providing entertainment to the local people through telecast of TV programmes; and (f) information services such as online newspaper reading, railway reservation enquiry, airline enquiry, hospital enquiry, etc. Further this service is also being effectively used w.r.t. (a) Rural Postal Service; and (b) Labs; and (c) Centre for Assembly and Lok Sabha Elections for transmission of data and providing support to the local authorities.

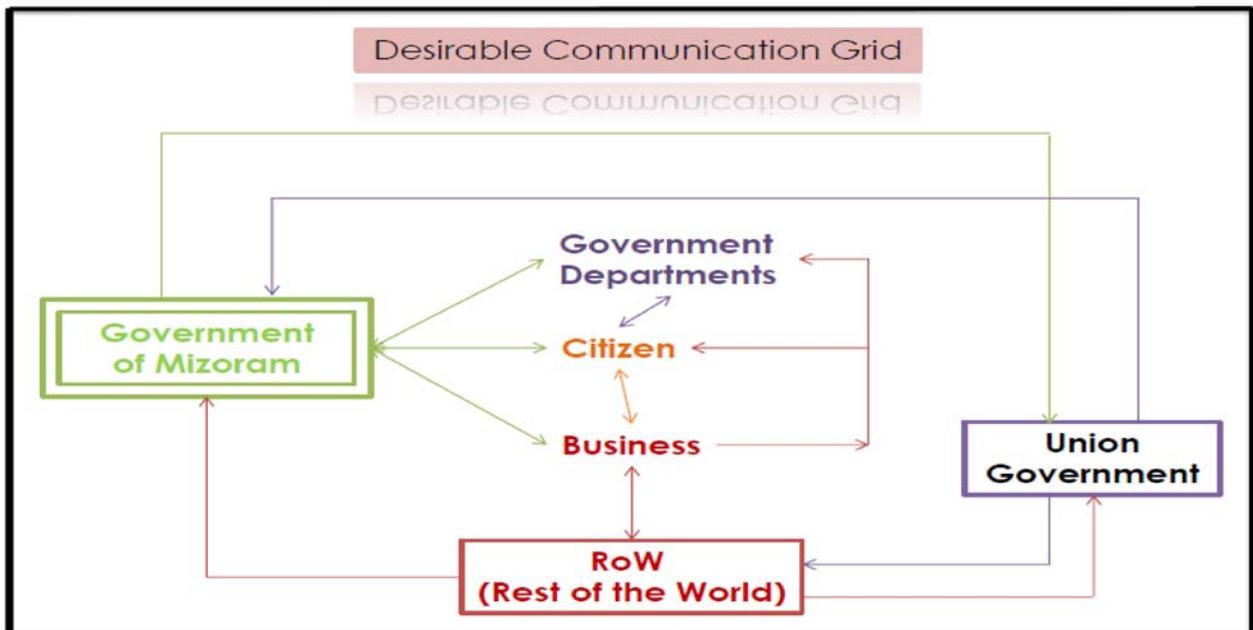
Later Endeavours

The other initiatives of the State Government along with National Informatics Centre (NIC) in several areas of communication and development include the corresponding:

Mizoram has an impressive e-governance and communication infrastructure in terms of the following:

- State-of-art NIC State-Center
- Three (03) District Centers
- Twenty Six (26) Community Information Centres
- e-Governance Centre (Aizawl)





- State Secretariat LAN connected through R F extending their services to the people of Mizoram
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Some important infrastructure related projects include (a) *Video Conferencing*; (b) *Sub Division Network*; and (c) *State Data Centre*.

Summing Up

It is a welcome move that the NeGP, State Data Centre is created for the State to consolidate services, applications and infrastructure to provide efficient electronic delivery in the corresponding grid.

Such a grid would be serviceable the States through common delivery platform supported by core Connectivity Infrastructure such as State Wide Area

Network (SWAN) and Common Service Centre (CSC) connectivity extended up to village level.

To mention some, the State Data Centre (SDC) might provide multiple functionalities such as:

- Central Repository of the State
- Secure Data Storage
- Online Delivery of Services
- Citizen Information Services Portal
- State Intranet Portal
- Disaster Recovery
- Remote Management and Service Integration. Management, IT Resource Management, Deployment and other costs.
- Remote Management and Service Integration.

SDC would be expected to provide efficient operational & managerial control while and broadly minimize the cost of Data Management, IT Resource Management, Deployment and other

costs.

The initiatives taken by the State Government of Mizoram includes three specific verticals are:

Core Initiatives

The vast infrastructure proposed to be used by the