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Content

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S. No.	Title	Authors	Pages
1.	Financial Literacy and its Effectiveness	Ms. Kirti Miglani	1-8
2.	A Review on Digital Initiatives in India with E-paper Money	Bhajneet Kaur Sanskriti	9-18
3.	Cashless Economy	Lavi Dahiya Mani Sharma Kriti Arora	19-26
4.	Role of Micro Finance in Women Empowerment in India: A Review of Case Studies	Bushra Kanika Kochar	27-36
5.	Greening the World Trade Organisation	Vineet Prakash	37-66

Financial Literacy and its Effectiveness

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Abstract

With the introduction of Liberalization, Privatization and Globalization policy various options have opened for financial products in the Indian market. The economy has witnessed significant changes in the financial markets. Increased competition and availability of complex products leave many people ill-equipped in order to manage their finances. Financial literacy seems to be one of the key pillars for economic growth and development of a nation. This concept has gained attention of government, financial institutions and regulator as well. So far there are various schemes which have been launched in India under the concept of financial inclusion like Pradhan Mantri Jan Dhan Yojana (PMJDY), Atal Pension Yojana (APY), Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) so that people may have knowledge and access to these options. This paper highlights the concept, importance and its reflection in investment making. This paper talks about various initiatives taken by RBI and role of State Level Banker's Committee in promoting financial education and to identify the pattern of investment criteria. The data for the present study has been collected from various secondary sources.

Keywords: Financial Literacy, Economic Growth, Financial Knowledge.

Introduction

Financial literacy may help the individuals to make an assessment for saving and enhance financial well being of an individual. It refers to the ability to make informed judgments and decision regarding the use and management of money. Financial planning is the road map for financial well being of an individual. It is one of the important instruments that is why there are various programmes which have been promoted by the government for its implementation process. The input to

financial planning process are income, assets and liabilities and output is financial planning process that tell us how to utilize existing funds in order to achieve financial goals.

Financial literacy relates to financial decisions which would enable an individual to take effective decision while making investment in various avenues. Education may play an important role in equipping an individual with required knowledge and skills. The regulators, planner, policy makers, believes that financial planning is must. Financial Literacy seems to be an important tool for promoting financial stability and financial inclusion.



Where do you save and how much return you will be targeting. There are three pillars for any investment to be made:

Any investment to be made for any specific goal needs to be prioritized in accordance with that. Portfolio mix can be a good combination further as you come under the income tax bracket you need to identify debt that can be more efficient. So instead of pure equity funds, hybrid funds will be better option. The investments should be on regular monthly investments or via Systematic Investment Plan. Most of the people have deposited into FD, Bank deposits. India has taken steps during past 10 years to modernize financial system; India has shown dramatic improvement in global microscope under institutional support of government and RBI.

According to the recent survey conducted by Standard's Poor found that 76% of Indians do not understand about basic financial concepts. Countries with highest financial literacy rate comprise of Australia, Canada, Denmark, Finland, Germany,

Israel, Netherland, Norway, UK and Sweden where more than 65% of adults are financially literate. A person is considered as financially literate when they correctly answer about the basic financially literacy concept: Risk Diversification, Numeracy, Inflation and Compound Interest.

The concept of financial literacy, financial inclusion would be bringing access to financial services, instruments which would propel the people under an umbrella of economic growth. According to the survey conducted only 12% of the population covered under pension fund. Financial literacy empowers a common person and protects him from market failures. It equips an individual with the knowledge to create budget and manage their debt. The need of society is to create a product for people with erratic income.

In India it has been observed that most of the people either invest in risk free government backed securities, fixed return, and low income yielding instruments. Most of the Indians prefer to keep their investment in Banks and rest of them at their home.

The financial literacy as a tool will enable an individual to better understand their market, finances and return part associated along with them. It can be termed as a process of acquiring knowledge about various financial products and thereby understanding the concept of risk and return. Because of LPG policy financial industry has seen intense competition not only within banking but in non- banking institutions as well.

Review of Literature

Oleson (2004) in their study analyzed that money is most widely used medium of exchange and has ability of an individual to fulfill their needs and wants.

Good fellow (2007) analyzed that saving is a routine decision occur where consumer monthly expenditure is stable and significantly below the level of monthly income.

Ahluwalia (2008) the survey revealed that most of the Indians do not plan for their long term future .They prefer to keep their savings in-house which may pose a serious concern to India's image. Thus to manage money and to take effective decisions financial literacy is important.

Bhushan Puneet and Medury Yajulu (2013) in their study focuses upon that most of the work has been done in developed nations like US, UK, Australia and very few studies have been carried out in developing nation like India. Target population in most of the cases is college students rather than young population. The researcher in their study focuses upon bridging the gap that there are very few studies which covered all areas of personal finance in order to study financial literacy.

The researcher conducted a survey among salaried individuals at Himachal Pradesh and uses multistage sampling, Total of 516 respondents constitute the sample. To check the level of financial literacy questions from areas personal finance, financial numeracy were asked and ANOVA Test been conducted. And the results show that the level of financial literacy level is 58.30% among salaried individuals. The ones who are above 60 yrs of age is having highest financial literacy level, it is highest in case of males than females.

Mundra S.S (2015) in their study discussed about the trial concept of financial inclusion, literacy and consumer protection. The researcher had made categorization about five type of illiterates Wise illiterates, Greed Driven illiterates, Information driven illiterates, illiterates illiterates, kindergarten illiterates. The researcher then address their needs and discussed how and why financial literacy drive is essential. The researcher said that greed, financial illiteracy, non availability of formal financial system are three major reasons because of which public fall into trap of illegal financial activities. The researcher had emphasized on effective coordination between state and local administrative machinery. And had also emphasized on state level bankers coordination committee for active coordination.

Dwivedi Monika, Purohit Harsh, Mehta Divya and Gurjar Sunita(2015) in their article had emphasized on impact of financial literacy and their impact on managing the finance.

They had focused on importance of financial literacy within an organization registered under Societies Registration Act. They had emphasized on importance and role of PRADAN as an organization. This organization focus on an idea that brightest must work with the poor. This organization has taken an initiative to improve the living conditions of poor and eradicating poverty from the society. They worked for mobilizing the resources. This organization has taken an initiative for

sustainable livelihood. Now the women don't need to take money from lenders. The women just need to take credit at 12% interest.

Nejati F, Ahmadi M and Lali M (2015) in their study emphasized on role of financial education and how it will empower an individual with an insight. Financial Education initiatives help to reduce dispersion of wealth. In the given research relationship was studied in between financial literacy, retirement planning and household wealth. 5 Point Likert Scale was used to rank the questions. Due to normality of research variables, the Pearson's correlation test and multivariate regression were used to examine the hypotheses.

According to the analyses made results shows that there is a direct and positive relationship between financial literacy and independent variables self-control, savings planning, retirement planning, and risk diversification.

Objectives

- To understand about the basic concept of financial literacy and its importance.
- To identify initiatives taken by RBI In order to spread awareness about the financial literacy.
- To understand about the basic concept of Investment criteria.

Initiatives Taken by RBI

Soon after Nationalization of major Commercial Banks in 1969, a committee of Banks headed by Sri FK.F Nariman, custodian of Union Bank of India was appointed by RBI to evolve various programmes for ensuring spread of adequate banking facilities and for assisting in balance regional development of a nation. Based on that lead bank scheme was initiated. Its main objective was to provide collective action by various banks and other financial institutions.

- To disseminate the information regarding banking concepts to the target population.
- To inform the target group through presentations, films, brochures and videos.
- RBI has created a link on the website to give information about financial information.
- Bank has been participating in various exhibitions in order to spread financial

information.

- Then RBI came out with the concept of credit counselling institutions and financial literacy centres.
- Various massive programmes have been initiated under financial inclusion scheme.
- Currently, there are 40 members of State Level Bankers Committee in Delhi who are holding meetings, programmes in order to spread awareness about the investment criteria.

CASE: - Choti Bachat Badi Khushali

If an individual start saving Rs10 per day than monthly figure comes out to be Rs300 and the yearly figure is Rs3600. So this is the magic which seems to be there behind investment criteria. And this is how financial Institutions are making aware to the general public about the investment and its benefits.

If you invest just Rs 2,000 each month from when you start earning and keep it for 25 years the final value would be around Rs 20 lakh assuming a rate of 8% per annum.

There is a dilemma in front of centres on the need to create customized financial products for the poor that are deeply integrated with their financial lives or to offer them cheaper variants of financial products.

The current financial crises situation has regained the attention of people on the importance of making well informed decisions about various financial options. The ones who are financially literate are often cautious about their spending. Financial literacy concept helps in preparing their customers for their uncertainties by promoting cumulative savings, purchasing insurance schemes and portfolio creation.

According to survey conducted by NCT of Delhi, 2014 reports revealed about financial literacy level. The overall literacy in Delhi derive from Attitude, Behaviour and Knowledge is estimated to be 32% which is comparatively higher.

Financial Literacy in age groups 25-49 years age group is 25% higher. And rising trend of financial literacy and inclusion has been observed with the increase in Income level. Moreover highest level of literacy was observed in case of

government employees followed by private, retired and students. Urban respondents are more financially included than rural respondents.

Findings

Financial Literacy is found to be effected by income, workplace activity and education .It has been observed that one's who hold higher level of financial literacy are having higher educational level. Further it has been observed that people with lower financial literacy level, lower income status and education are not aware about their investment criteria and about the various avenues available to them.

Conclusion

Financial literacy has assumed a greater importance. The focus is primarily on individuals who are having limited access to various financial resources. Prosperity may only come if predefined efforts will be given to earning, investing, saving, spending. It is one of the most important tool in order to make people aware about the future uncertainties. The given analysis helps in understanding about the basic concept of investing and helps in clarifying various concepts of investing that by investing money in small denominations how we will be able to capture maximum benefits. And lure the benefits of compounding if predefined efforts in systematic manner will be given. Thus it can rightly be said that the concept of financial literacy helps an individual to accomplish their financial goals .There are various initiatives have been taken RBI, SEBI, NSE, Commercial Banks. But the negative aspect is that the majority of the people are not having awareness, which shows that the majority of people live on day to day earnings thus there is a strong need to take coordinated efforts in order to bring transformation in the Indian society.

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A Review on Digital Initiatives in India With E-paper Money

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Abstract

Digital delineate to electronic technology that generates, stores and processes data, so that it is stored in a virtual central repository and is easy to access anytime, anywhere ,through established protocols which creates a transparent environment. Digital Technologies which include Cloud Computing and Mobile Applications transpire as catalysts for shaping our world.

The Digital India drive is a dream project of the Indian Government to remodel India into a knowledgeable economy and digitally empowered society, with good governance for citizens by bringing synchronization and co- ordination in public accountability, digitally connecting and delivering the government programs and services to mobilise the capability of information technology across government departments.

Digital India imagines, universal digital literacy and approachability for all digital resources for citizens by ensuring that the resources and services are accessible in regional languages and providing digital scaffold to participatory governance ensuring convenience, like making all government certificates and documents available on the Cloud with portability.

Keywords: *Digital, Cloud Computing, Mobile Applications, Paperless.*

Introduction

On November 9th, 2016 Prime Minister Narendra Modi took the entire Nation by surprise by dropping the bombshell of the discontinuation of INR 500 and INR 1000

notes. A much needed change, a change that initiated an action the government had been taking actions for, but despite repeated trials was failing. Demonetisation, brought about a significant change not only for a person who hoarded black money, but also affected each and every person on the lowest level.

This demonetisation decision has been the biggest and most ambitious step ever to move India towards a 'cashless' economy.

The main objective of this paper is to understand to see how the Indian economy would look in the near future and is aiming to be a cashless economy, whilst using the Internet of everything, discovering that plastic money is the next step.

Right information for the right user at the right time has been the aim of information professionals all around the world at all times. The Internet and web have brought significant changes in the way information is generated, distributed, and accessed. In today's digital society, where all the knowledge is divided into two binary strings of zeros and ones, that codifies the data, allows people to create, control, and share data in revolutionary ways. This has changed the whole scenario of information world at levels never seen before.

In spite of all the advances made in the recent years by the Indian Government to popularise cashless transactions, India continued to be a high-cash-usage economy. A “Cashless Economy”, is defined as an economy where all the transactions are done using different types cards or digital means and circulation of any actual physical currency is reduced by leaps and bounds.

In India, less than 5% of all payments happen electronically, therefore using too much cash for all its transactions.

Why Does India Need to Step Up and be A Cashless Economy and its Real Position:

The benefits of a cashless economy:

Hygiene – Soiled, tobacco stained notes are a norm in India. There are multiple incidents in our life where we unknowingly or knowingly exchange germs in the form of rupee notes. This could be avoided if we move towards Cashless economy.

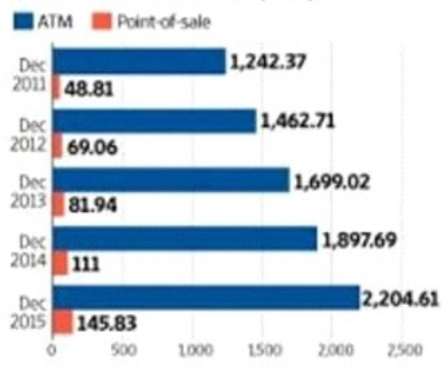
PURSE STRINGS

The number of transactions and money withdrawn at ATMs remains significantly higher than the number and amount spent at point-of-sale terminals.

NUMBER OF TRANSACTIONS (mn)



AMOUNT TRANSACTED (₹ bn)



OUTSTANDING DEBIT CARDS (end of month; mn)



Source: Reserve Bank of India

1 in 7 notes is supposed to be fake, which has a huge negative impact on economy, by going cashless, that can be avoided and therefore the benefits that will be received by the economy being cashless are innumerable. To begin with there will be reduced instances of tax avoidance since financial institutions based economy where transactions are made, trails are left. This is chain will lead to curbing of generation of any type of black money. Since the economy will have less black money, the real estate prices will fall. Since, most of the black money is invested into real estate markets, now prices will fall down for common man.

In the Calendar year 2015, RBI spent about Rs 27 billion on just the activity of currency issuance and management. Such a waste of money could be avoided if we became a cashless society. Universal availability of banking services to one and all whilst no physical infrastructure required other than digital will lead to greater efficiency in welfare programs as money is wired directly into the accounts of recipients.

Thus once money is transferred directly into a beneficiary's bank account, the entire

process becomes transparent.

Since payments can be easily collected and traced, corruption levels will automatically and significantly drop, so people will no longer have to pay to collect what is in fact rightfully theirs.

One major benefit will also be the reduced costs of operating ATMs. No delays and queues, no more interaction with the bank staff, all leading to speed and satisfaction of operations for customers.

A Moody's report pegged the impact of electronic transactions to 0.8% increase in GDP for emerging markets and 0.3% increase for developed markets because of increased velocity of money.

An increased use of credit cards instead of cash would primarily enable a more detailed record of all the transactions which take place in the society, allowing more and more transparency in business operations and money transfers.

This will eventually have a long lasting chain effect:

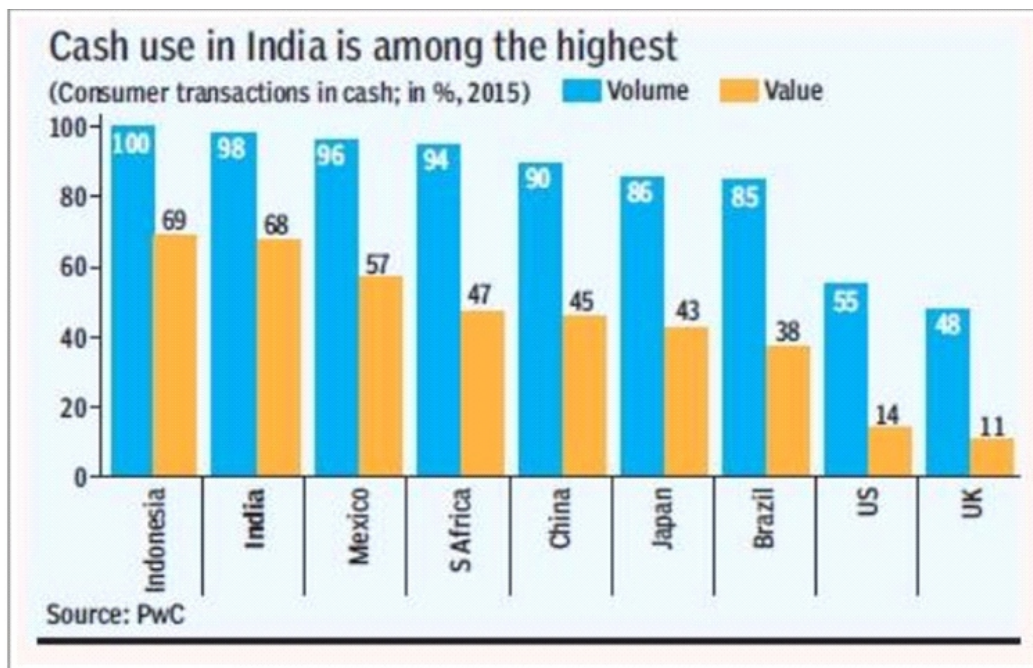
Improvement in credit access and financial inclusion, which will benefit the growth of SMEs in the medium/long run.

Reduce tax avoidance and money laundering thanks to the higher traceability of all the transactions.

The increased use of credit cards will definitely reduce the amount of cash that people will carry and as a consequence, reduce the risk and the cost associated with that.

Challenges in Making India a Cashless Economy:

Since India uses too much of cash for all its transactions, and less than 5% of the transactions take place electronically, the ratio of cash to GDP (gross domestic product) is one of the highest in the entirety of the world—being 12.42% in 2014 as compared with 9.47% in China or 4% in Brazil.



The number of currency notes in that are in circulation are also farhigher than other large economies in the world, such as The United States.

As per statistics, India had about 76.47 billion currency notes in circulation in 2012-13 compared with 34.5 billion in the US, which is a41.97 billion extra notes.

With no such great surprise at all, a lot of studies show that cash dominates even in malls, which are dominated by typical type of people who are likely to have credit cards, so it comes as no surprise that cash dominates in other markets as well.

The Future

The payments landscape in India is undergoing a transformation: traditionally a cash-based economy is now seeing a humongous increase in card-based and mobile transactions to handle their daily expenses.

In such a scenario, mobile payments have presented themselves as a platform which has an unique set of capabilities which can overcome all the challenges posed by the Indian payments landscape.

A low-cost means to create financial access and payments for users which helps in extending to the last mile and reaching out for banking services either through business correspondents or directly to all the end consumers.

Improvements in the telecom infrastructure, low-cost smartphones, access to internet connectivity will eliminate the need for an hardware based on fixed line connections, therefore making mobiles a platform that uniquely combines digital value, digital identity and digital authentication to create low-cost access for financial services.

In fact, since demonetisation has been sprung into effect, there has been a clear winner, a class of startups offering digital payments and online wallets.

A massive rise in app downloads in mobile wallets has been witnessed. Paytm's traffic, for instance, has increased by 435% and its downloads by 200%.

At present, Paytm is India's leading mobile wallet startup – it allows users to make transactions “at 850,000 places across 1,200 Indian cities, including mom and pop shops, branded retail outlets, and petrol pumps.

Paytm even advertised in newspapers, congratulated Prime Minister on the demonetization, calling it the “boldest decision in the financial history of independent India”.

So, can mobile wallets pave the way to a cashless economy?

According to a recent report by Growth Praxis, the market for mobile enabled payments in the country grew more than a fifteen times between 2012 and 2015 to reach its current size of \$1.4 billion.

Interestingly, nearly about 60% of users accessed the internet for the first time on their mobile phones – in marked contrast to many other countries, where desktop and laptop are the first web-enabled devices that people use.

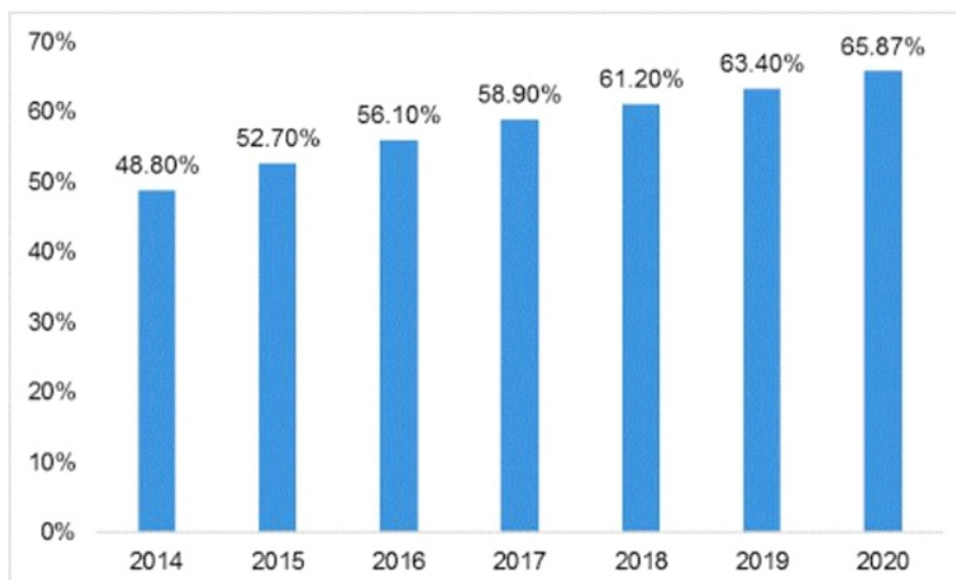
Earlier, as it would have it, most people would mobile applications for internet and for social networking sites, but that's changing now – as increasing number of the population is using it to make mobile payments.

Service providers are looking for ways to make cash by taking a cut from vendors, as

the apps are free for customers. They are also flooding the market with cash back offers and discounts to get more traffic.

But the question remains, can mobile wallets in India mirror the success that mobile payment tech has enjoyed in countries like Kenya, where more than 90% of the adult population has signed up to Vodafone's M-pesa payment platform?

Telecom infrastructure is improving and 3G & 4G services are being offered at very affordable prices, giving a huge boost to mobile commerce in the future. With 4G becoming more and more affordable with entry of telecom giants such as JIO, the digital wallets adoption in Tier 2 and Tier 3 cities is going to increase many folds.



If reliable and fast mobile networks can make it out to rural areas, then mobile wallets should see huge growth in India. But it will still take a huge cultural shift to wean people off hard cash.

Seventy two per cent of Internet consumed in India happens on a smartphone, one of the highest in the world, while the world's average.

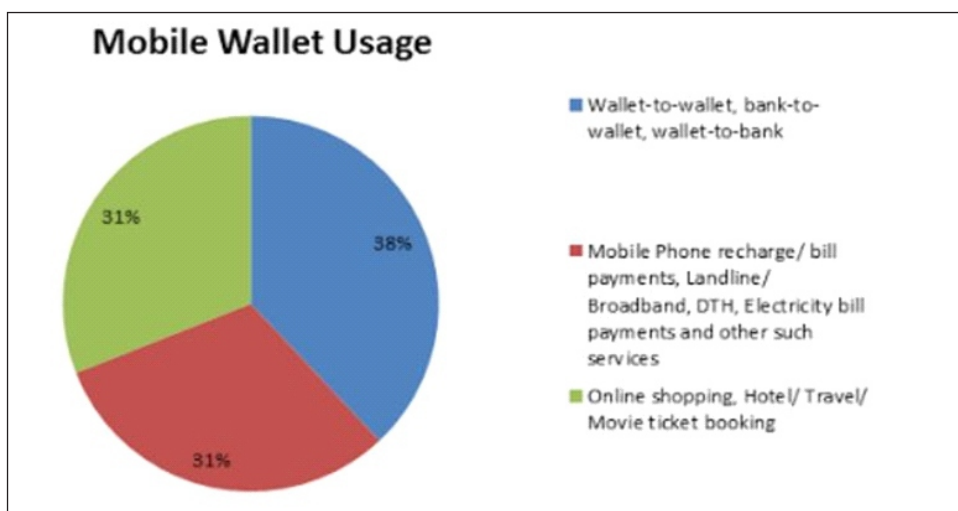
Internet consumption on mobile phones has just crossed 50% in a month.

The key levers to this amazing revolution towards a largely cashless economy in a country of 130 crore people-globally the first in a developing economy as the

Western, Japanese and Chinese economies were all quite well developed when they progressed through this transition at a relatively slower pace-have been the 'digital initiatives" (consumers) and the infrastructure (smartphones).

From 2016 to 2020, the number of Internet users in India is estimated to grow from 37.5 crore to 65 crore and that of smartphone users from 38 crore to 55 crore. So, even those without much literacy or having no computer or a laptop are joining the digital transaction revolution in a big way.

BY 2020, about 65.87% of the entirety of the Indian Population will have joined hands to make something of a cashless economy, and bring about a change in the way transactions are made.



Conclusion

There are many in the banking sector who believe that mobile and even digital banking can bridge the gap between non-cash and cash payments.

With digital penetration increasing in the economy, the gap between cash and plastic will start to decrease. The new way of payments and small finance banks can have a role in decreasing this gap.

Banks, too, are introducing new-age payments options. and the focus is on increasing customer awareness for using cards beyond just cash with drawals from

ATM's.

In addition to traditional usage, banks are working on contact less payments using push payments on quick response, near field communication or bar code scanning, and other checkout solutions while making transitions online.

As Bill Gates has said, Banking is necessary, but banks are not.

Digital payment systems can do more for equality in poor countries than they can do anywhere else, and we would like them to emerge there even if it takes longer in richer countries, and eventually the world will go cashless and India will move on to a completely digital economy.

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Cashless Economy

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Abstract

This paper analyzes India's gradual transition towards a cashless economy. We present a theoretical model that evaluates decisions by consumers and sellers to adopt cashless payments. We then use data from surveys conducted in 2011 and 2014 as well as house hold and enterprise survey's conducted in 2009-2010 to estimate the amount of cashless transactions prevalent in India and identify the avenues that are successful and those that are not. We analyze instruments (cards versus point-of-sale versus mobile), micro units (individuals versus households versus retailers) and sectors to identify and estimate the enablers and bottlenecks.

Introduction

In the December of 2012, I had a good fortune of visiting a beautiful country Singapore of course, the infrastructure and facilities were very impressive but one thing in particular captured my attention was a CARD. This card was not a just piece of plastic but with a chip inside. Once recharged any of machines present at various public places it could be used to travel by bus, train etc.

Cut to 2017, a couple of weeks back I came across this newspaper headline- "HARYANA GOVERNMENT issues petro cards to drivers". After a wait of 4years, I finally got the answer- Yes, INDIA can.

Remember those history classes in school where they taught us about BARTER SYSTEM well that is an example of a traditional cashless economy, but the present cashless transactions takes place through digital currencies like Bitcoin or Mobile Wallets etc.

The most appropriate name is 'LESS CASH' society.

‘The Cash is King but its Throne is Being Toppled’

Rank	Country	% non-cash payment share
1.	Belgium	93
2.	France	92
3.	Canada	90

Literature Review

(Jayachandran)

Even as ordinary citizens queue up for cash and economists are busy estimating the extent to which economic growth will be hit because of the ongoing drive to replace high-value banknotes, there has been a lot of discussion on whether the government can use the current situation to push India towards a cashless future. In his radio address on Sunday, Prime Minister Narendra Modi once again pitched for creating a cashless society.

Reducing Indian economy's dependence on cash is desirable for a variety of reasons. India has one of the highest cash to gross domestic product ratios in the world, and lubricating economic activity with paper has costs. According to a 2014 study by Tufts University, *The Cost Of Cash In India*, cash operations cost the Reserve Bank of India (RBI) and commercial banks about Rs21,000 crore annually. Also, a shift away from cash will make it more difficult for tax evaders to hide their income, a substantial benefit in a country that is fiscally constrained.

To be sure, the government on its part is working at various levels to reduce the dependence on cash. Opening bank accounts for the unbanked under the and adoption of direct benefit transfer is part of the overall idea to reduce usage of cash and increase transparency.

(Saksham Khosla is a research analyst at Carnegie India) A day after Prime Minister Narendra Modi announced that to curb black money in circulation Rs 500 and Rs 1,000 notes would no longer be recognised as legal tender, finance minister

Arun Jaitley added a new gloss to the decision. He announced that this currency swap would “not merely nudge the economy in the direction of cashless economy but [give it] a significant push in that direction.” Economic affairs secretary Shaktikanta Das echoed this in an interview, explaining that this move was part of a larger agenda to move India into a digital economy. These calls reached a crescendo in Modi's monthly radio address, where he asked citizens to take a pledge to be part of a cashless society. But do the preconditions for a successful transition to digital banking exist?

This is as much a structural constraint as it is logistical. Card acceptance infrastructure struggles to keep pace with India's growing population: in 2014, there were 18 ATMs and 13 commercial bank branches per 100,000 adults – in comparison, the number in Brazil was 129 and 47 respectively. Between 2013 and 2015, debit cards grew twice as fast as the number of POS machines and one-and-a-half times the number of ATMs, with the majority of new infrastructure taking root in urban centres. India's modern banking system maps neatly onto social and spatial inequalities. Only 18% of all ATMs are deployed in rural India. The RBI's own research finds that states with a higher female population and a more rural populace show lower levels of financial inclusion.

The impact of mobile wallets in hastening the transition to a cashless economy is overstated. Merely 26% of India has internet access, and there are only 200 million users of digital payment services. The World Bank's Global Findex shows that Indians are significantly less familiar with digital banking – the use of credit or debit cards, making transactions using mobile phones, and using the internet to pay bills – than their peers in middle-income nations.

Annamalai, S. and Muthu R. liakkuvan (2008) in their article “Retail transaction: Future bright for plastic money” projected the growth of debit and credit cards in the retail transactions. They also mentioned the growth factors, which leads to its popularity, important constraints faced by banks and summarized with bright future and scope of plastic money.

Methodology

The process used to collect information and data for the purpose of making business decisions. The methodology may include publication research, interviews, surveys and other research techniques, and could include both present and historical information.

It is the systematic, theoretical analysis of the methods applied to a field of study. It comprises the theoretical analysis of the body of methods and principles associated with a branch of knowledge. Typically, it encompasses concepts such as paradigm, theoretical model, phases and quantitative or qualitative techniques.

It has been defined also as follows:

The analysis of the principles of methods, rules, and postulates employed by a discipline

The systematic study of methods that are, can be, or have been applied within a discipline

The study or description of method

Types of Research :

1. Primary research is defined as factual, firsthand accounts of the study written by a person who was part of the study. The methods vary on how researchers run an experiment or study, but it typically follows the scientific method.

One way you can think of primary research is that it is typically original research.

2. Secondary research is defined as an analysis and interpretation of primary research. The method of writing secondary research is to collect primary research that is relevant to a writing topic and interpret what the primary research found. For instance, secondary research often takes the form of the results from two or more primary research articles and explains what the two separate findings are telling us. Or, the author may have a specific topic to write about and will find many pieces of primary research and use them as information in their next article or textbook chapter.

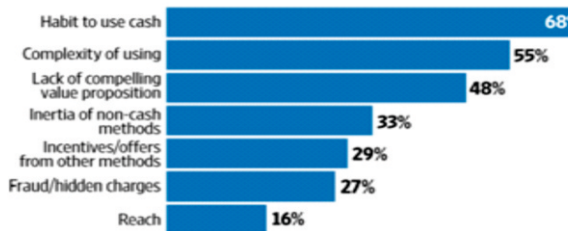
The nature of our research is descriptive

The data has been collected from journals, internet and articles.

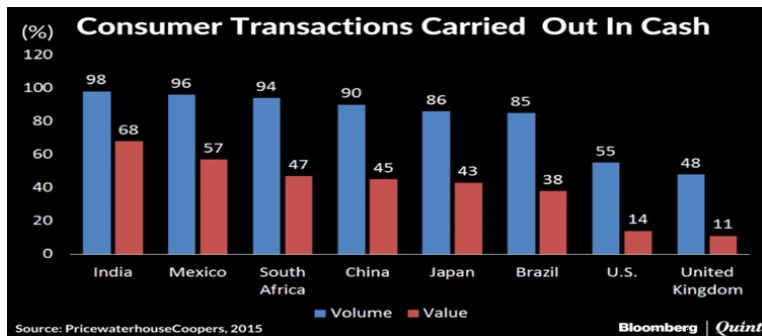
Data Analysis

Findings

KEY BARRIERS TO DIGITAL PAYMENTS



	Cash	Debit Card	Credit Card
(use in percentage terms)			
Australia	65	21	09
Austria	80	15	02
Canada	52	25	20
France	55	30	01
Germany	80	12	02
Netherlands	50	40	01
United States	46	27	19



1. Three-Easy methods of paying cash



 Banking Cards	 USSD	 AEPS	 UPI	 Mobile Wallet
 Banks Pre-paid Cards	 Point of Sale	 Internet Banking	 Mobile Banking	 Micro ATMs

-
2. **Less cash not cashless-** The meaning of cashless economy in popular usage is an economy where transactions in cash are minimal and not necessarily null. So the most appropriate terms would be less cash society.
 3. **India uses too much cash for transactions-** The ratio of cash to gross domestic product is one of the highest in the world-12.42% in 2014, compared with 9.47% in China or 4% in Brazil. The number of currency notes in circulation is also far higher than in other large economies. India had 76.47 billion currency notes in circulation in 2012-13 compared with 34.5 billion in the US.

Example of steps taken in various countries towards reducing dependent on cash

bKash is a specialized company in Bangladesh focused on mass market mobile



financial services. Launched in July 2011 bKash reached 11 million accounts by the end of 2013. In India, finance ministry along with National Payment Corporation of India and R.B.I is bringing about various initiatives like unified payment interface to user in a cashless economy. Haryana, a state in India has begun training the Government officials who in turn will educate the general public about digital transactions. Many banks have conducted camps to impart information about the same. Sri-Lanka inter-bank payment system is an online inter-bank E.F.T.S getting mainly for low value payments in Sri-Lanka.

Conclusion

To conclude I would like to quote the example of South Korea starting out as a very cash dependent society, the Korean government has successfully put into place policies to encourage cashless behavior. For example, South Korea introduced a V.A.T treatment for consumers, who pay with cards, moving the share of cash from

40% to 25% within four years from 2002-2006. All the member countries of SAFA, has the basic infrastructure and logistics needed to begin the journey to begin the journey towards an economy with minimum cash. All that is needed is the first step and I can proudly say that almost all Member countries have already taken this first step. Therefore it can be safely concluded that the possibility of cashless economy in SAFA countries is high.

Finally, to conclude about acceptability, I believe I speak on behalf of all the citizens of all the member counties when I say that if a step makes our country better, we will accept it with open arms and support it whole-heartedly. We all are 'KISSAN' and 'JAWANS' of our country and this is the least that we can do for our Motherland.

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Role of Micro Finance in Women Empowerment in India: A Review of Case Studies

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Abstract

The Study is to understand the role of micro finance in women empowerment and strengthening them to become independent. The micro finance is provided by various micro finance institutions with the assistance of NABARD and other government bodies to empower the rural poor with financial resources. Self-help groups are an important solution to provide micro finance in rural areas. These are voluntary organizations formed by interested group members to cater the need of rural poor without any administrative formalities. SHG is the effective strategy to empower the women in India. SHG provides assistance in rural as well as urban areas. SHG takes care of economic empowerment as well as social empowerment by providing them opportunity to become independent entrepreneurs. This study is the review of various case studies related to role of micro finance in empowering the rural and urban women in India. It is based on secondary data which is the limitation of this study. In addition of this secondary data is collected from various published resources like journals, books and internet. The study reveals that micro finance has changed the economic and social factors of women. There is significant change in the variables like social awareness, decision making power, and self-confidence, ability to tackle problems before and after getting financial assistance from various micro finance organizations specially the self-help groups.

Key Words: Empowerment, Entrepreneurial Activities, Microfinance, Self Help Groups

Introduction

Swami Vivekananda quoted that, “there is no chance for the welfare of the world unless the condition of women is improved, and it is not possible for a bird to fly on only one wing”.

The women living in urban area have more opportunities as compared to women living in rural. Gender discrimination is extremely prevalent in India; women lack basic rights and opportunities. Their lives are often governed by their husbands or families. MFIs help women to gain liberty and strength, which lead to empowerment. Empowerment means creating a social environment in which one can take decisions independently and makes choice either individually or collectively. In addition to it let women survive and let them live a life with dignity, humanity, respect, self-esteem and self-reliance. It strength inability by way of acquiring knowledge and experience. WOMEN EMPOWERMENT as one of the prime goals in the eight millennium development goals. There is no denying the fact that women in India have made a considerable progress in almost seven decades of independence, still they have to struggle against many social evils in the male dominated society.

Independent women can participate fully in economic life across all sectors and helps to achieve internationally agreed goals for development and sustainability and improvement in the quality of life. According to our latest census about 70 per cent of the total population live in villages, and do their agricultural activities. So it is important to empower women both in urban and rural areas. They face many socio-cultural attitude, legal barriers, lack of education and personal difficulties.

Traditionally, women have been marginalized. They are rarely financially independent and treated as vulnerable members of society. Of the 1.3 billion people who live in absolute poverty around the globe, 70% are women. Till now they do not have access to credit and financial services. For the Women, poverty doesn't just mean scarcity of resources. It means rights denied, opportunities curtailed and Voices silenced and nobody wants to listen what they want to say. It is ironical that country who has accomplished first Asian country in its mars mission and which treat women as their goddess, in that country the issue of women empowerment is being raised and also positioned 29th rank among 146 countries across the globe when progress of women is being talked about!

According to Krishna (2003) empowerment means increasing the capacity of individuals or groups to make effective development and life choices and to transform these choices into desired actions and outcomes. It is by nature a process and/or outcome.

Micro Finance

Microfinance is as “Provision of thrift, credit and other financial services and products of very small amounts to the poor in rural, semi-urban or urban areas for enabling them to raise their income levels and improve living standards”. The term “Micro” literally means “small”

Microfinance institutions (MFIs) partnered with social businesses, Self-Help Groups (SHGS), and cooperatives to curtail poverty in India and empower the poor, especially the female population.

Microfinance plays a major role in gender equality and development strategies because of its direct relationships to both poverty alleviation and women. As women are the poorest of the poor so there is need to provide more financial security then they will be more empower in household and community affairs.

Proponents of targeting women argue that women repayment record is good and their behaviour is more cooperative than men.

Micro finance is a source of financial services for entrepreneurs and small businesses lacking access to banking and related services. Microfinance is a critical tool to empower women particularly belongs to poor household. Microfinance is a movement whose object is “a world in which as many poor households as possible have permanent access to an appropriate range of high quality financial services , including not just credit but also saving, insurance, and fund transfer”. Microfinance is a way to promote economic development, employment and growth through the support of micro entrepreneurs and small business. Microfinance's emphasis on female-oriented lending is the subject of controversy, as it is claimed that microfinance improves the status of women through an alleviation of poverty.

The history of micro financing traced to the middle of the 1800s when the theorist Lysander Spooner was writing over the benefits from small credits to entrepreneurs and farmers as a way getting out of poverty. These days use of the expression micro financing has its roots in the 1970s when organizations, such as Grameen Bank of Bangladesh with the microfinance pioneer Mohammad Yunus, who were starting and shaping the modern industry of micro financing... Shore bank was the first microfinance and community development bank founded in 1974 in Chicago. The year 2005 was proclaimed as the International year of Microcredit by The Economic and Social Council of the United Nations in a call for the financial and building sector to “fuel” the strong entrepreneurial spirit of the poor people around the world.

Today the World Bank estimates that more than 16 million people are served by some 7000 microfinance institutions all over the world.

From the beginning the innovation of microfinance has allowed poor people because they are usually excluded from traditional banking system. It gives opportunity to obtain credit to develop micro enterprises and build savings. Since the 1950s, microcredit has been used as a method by governments in developing countries, international funding organizations and donor agencies, in order to help the poor make money. During the 1950s and 1960s in collaboration with the Indian banking system, the Indian government started disbursing loans to families in rural areas that worked in the agricultural sector as well as city-dwelling families to promote economic growth in India. By 1969, Prime Minister Indira Gandhi has started to nationalize commercial banks so they could go public in order to meet some of the new policy goals, such as making it easier for non-wealthy individuals to have access to a bank. As a result, thousands of new banks and branches have opened even in rural India. During this time, loans were given to artisans as well as to agricultural and dairy farmers. One of the goals of these new banks was to stop moneylenders from providing loans.

Currently, there are three main sectors for credit lending in India: the formal sector, which consists of financial institutions such as, commercial banks, public and private sector banks, and regional rural banks (RRBs), which have more than 32,000 rural branches. There is also a large system of rural cooperative banks, with a three level structure at the state, district, and village levels. There are around 14,000 rural cooperative bank branches and more than 98,000 of the Primary Agricultural Credit Societies (PACS) (since agricultural is the main source of income for the rural poor), which are used by the cooperative network as vehicles to distribute funds. (Basu 2006). The formal section sometimes distributes credit and other services to the non-formal section. The non-formal sector includes NGOs, SHGs, MFIs, and other organizations and groups that can function with more flexibility and have fewer restrictions than banks. Microfinance institutions reach around 30% (directly or indirectly) of the rural poor or about five to six per cent of the country's poor rural households. The SHG-Bank linkages are successful models of microfinance programs in India. The SHG-Bank linkage program has been able to provide twelve million families with savings accounts. NABARD plays a big role in helping SHGs reaching to the poor. In general MFIs reach around one million people. Thus, the

microfinance industry is growing in India and providing the underprivileged with the opportunity to generate income and rise out of poverty.

Literature Review

It has been observed that if women get better education and facilities that lead to the betterment of family, especially children (Mayoux, 1997; Kabeer, 2012; Hulme and Mosley, 1997). A more feminist point of view stresses that who gets more financial resources lead to an opportunity for empowerment. Such organizations specifically perceive microfinance as a tool in the fight for the women's rights and independence.

Ranjula Bali Swain (2007) Can Microfinance Empower Women? Self-Help Groups in India helps the women to work in the right direction and lead them to the process of empowering themselves and NGOs support them in providing financial services and specialized training that has positive impact on women empowerment.

SusyCheston, Lisa Kuhn in their article titled 'Empowering Women through Microfinance' concluded that Microfinance has the potential to have a powerful impact on women's empowerment.

Ranjula Bali Swaina and Fan Yang Wallentin (September 2009) in their article 'Does microfinance empower women? Evidence from self-help groups in India. They concluded that their study strongly indicate that SHG members are empowered by participating in microfinance program to have a greater propensity to resist existing gender norms and culture that restrict their ability to develop and make choices.

Pal S. Comparative study on decision making power of self-help group and non-self-help group women in relation to farm activities. International Journal of Agricultural Extension, 2014, states that goal of women empowerment is achieved through self-help groups. This study analyses that the women are ignored by the society but they play an important role in the process of decision making.

Reena RK, A Comparative analysis of women's economic empowerment through self-help groups. JBM and SSR, 2014 states that level of income earned by the women is the major factor in the empowerment of rural women. This study involves a survey in the district of Sirsa by considering the income level, savings and investments among the self-help group members as economic freedom plays a major role in the empowerment.

Scope of Study

The scope of study is to find out the role of microfinance in women empowerment. The micro finance plays an important role in poverty alleviation and strengthening the rural poor, specifically women by providing financial assistance. Micro finance helps in up-liftment of rural women and contributes to the growth of economy.

Objectives of the Study

- To study and analyse the role of microfinance in women empowerment
- To assess the contribution of self-help groups as a tool of micro finance to improve financial status of rural women
- To review the research studies related to role of micro finance in empowering women in India

Case Studies Related to Role of Micro Finance in Women Empowerment

1. Case study of SKDRDP: - It was established 1991 and it is registered under Societies Act. It covers approximately 2,00,000 families as per the study conducted in 2012. It has promoted 1.5 lakh self-help groups as on that date. These self-help groups majorly contribute towards empowerment of women in rural areas. Pragathi Nidhi of SKDRDP includes the provision of financial assistance with zero administrative costs. It provides loans with the savings of members with easy repayment installments. Pragathi Nidhi (2012-13) has provided loans for agriculture, irrigation, housing and sanitation and self-employment. The total amount of loan provided by Pragati Nidhi is Rs. 5,44,433.
2. Role of Micro-finance in women's empowerment - A study in Pondicherry region rural SHGs by Sarumathi, S, and Mohan, K in 2011:- This study was conducted in the rural region of Pondicherry. It has covered NGO promoted six self-help groups. The sample for the study was 181 women entrepreneurs engaged in small enterprises with the help of micro finance provided by various self-help groups. This study revealed that micro finance contributes towards social empowerment of women. The focus of the study was that there was a significant improvement in Expression of opinions freely, moving independently and Role in decision making in family.
3. Impact of Microfinance - an empirical study on the attitude of SHG leaders in

Kanya kumari district of Tamil Nadu by N. Thalavai Pillai and S. Nadarajan in 2012:- This study focused on economic freedom and improvement of women in Kanya kumari district of Tamil Nadu. The sample size for this study was 56 women entrepreneurs. The variables covered in this study were economic empowerment of women, role of micro finance in poverty reduction, creation of assets with the help of micro finance, increased employment opportunities and improvement in the living standards of women entrepreneurs. The study has revealed that there is an improvement in all these factors due to micro finance facilities provided by self-help groups. This study has also analyzed that there is an improvement in the social empowerment of women as well. It has considered factors for social empowerment like managerial abilities of women, Role in decision making within the family increased, Group management skill, awareness about micro enterprises, NGOs and democratic institutions etc.

4. How effective is a Self-Help Group Led Microfinance Programme in Empowering Women? Evidence from Rural India by Gagan Bihari Sahu Centre for Social Studies, Surat, India in 2015:- This study was empirical based on the role of micro finance in strengthening the rural women. It has analyzed the result with the help of chi-square test and it revealed that the women entrepreneurs who have long duration of membership with the self-help groups are more empowered and the composite empowerment indicator increased by about 9% being the member of self-help group for more than one year. It has also revealed that an additional year's increase in membership enhances women's economic as well as political empowerment by 7% and 10%, respectively.
5. Empowering Rural Women through Micro Finance: An Empirical Study by S. Arun Kumar in July 2016:- This Study is based on members of SHG in Chidambaram Taluk. The sample size of the study was total 200 members of SHG. This study is conducted for duration of two months from 28th April 2015 to 30th of June 2015. The statistical tools used for analysis are as follows, Percentage Analysis Method, Weighted Average Method, and Paired't' test. The data analyzed used SPSS Version 16 software. The findings of the paired't' test reveals that there is a significant difference observed between income generation, contribution to house hold income, participation in house hold financial decision, improvement in standard of living, change in social status,

awareness about social issues, involvement in social issues at locality, improvement in basic house hold facilities and amenities, ability to solve family related problems, self-confidence, attainment of knowledge and Skills, decision making capability and ability to tackle family problems before and after micro finance usage and participation in Self Help Groups.

Conclusion

Microfinance is the tool that has taken women to another edge to be empowered. It has the power to make women independent and self-confident. Although microfinance is not always empowering for all women, most women do experience some degree of empowerment as a result. It supports women to contribute in their household income, participation in house hold financial decisions, improvement in standard of living, decision making on family budgeting and purchase of house hold items, change in social status, involvement in social issues, family relationship, ability to solve family related problems, self-confidence, knowledge and skills, and interest to develop leadership qualities. Rather there are also other issues regarding the utilization of microfinance by the SHG members. Most of the members of SHG use the loan amount mainly for their domestic/house hold purposes rather than using it for micro-entrepreneurial purpose. Hence, members of the group should be initiated to involve themselves in entrepreneurial activities which will not only improve the individual empowerment but also to the growth of the country. Further researcher can do research to explore the motivational factors which specifically motivates the self-help group members to become a successful entrepreneur. It has been observed that there are very few respondents who are below 30 years of age. So women below 30 years of age should be encouraged to join the self-help groups in large numbers. Also married women actively take part in SHG activities as compared to unmarried women, so they should be motivated to take part in those activities then the day is not far away when India will be a country of young women entrepreneurs. In the country ninety one percent of the respondent's educational qualification is below or up to schooling only, so transformational educational programs and campaigns can be conducted to improve their knowledge and educational qualification. It is not that women are not participating rather they are more to be motivated so the ratio of men and women entrepreneurs will be the same. To make the two wheeler efficiently work both

wheels should be perfect if either of the wheels is damaged then one cannot ride it. Same is with the men and women to participate equally so the nation will achieve economic and social empowerment.

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Greening the World Trade Organisation

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Abstract

Sustainable development is the buzzword in policy-making circles and linking of trade among nations with environmental standards has been a part of discourse on conservation of environment since the 1990's. This paper attempts to examine the position of United States of America on the issue of linking trade and environment in World Trade Organisation. It takes a look at the sincerity of US and other key member states of WTO about protecting the environment. The paper assesses the position of various members of WTO on the issue of environment in the various environment related trade disputes brought before the WTO Dispute Settlement Mechanism and through it, an effort is made to gauge the commitment of various countries to the cause of safeguarding the environment.

Reconciling economic growth with environmental protection is one of the greatest challenges now facing policymakers. By the last decade of the 20th century, the gravity of global environmental problems such as ozone layer depletion, global warming and the resultant climate change had fully dawned upon us. With the available scientific evidence, it was amply clear that environmental issues could no longer be shelved into the background in the name of economic growth and development. Unfortunately, these twin goals are still widely seen as opposed to each other: the efforts for promoting one are often seen as discouraging the other. Liberal economic theory is of the opinion that free trade produces benefits. If all states were to specialize in the production of goods in which they enjoy comparative advantage and trade them with other states that enjoy similar advantages in other products, then all will prosper. Based on this logic, commercial

policy liberals conclude that free trade increases prosperity, and wealth contributes to the capacity to manage the environment well. Speaking for the liberal economists, Bhagwati asserts that the fear widespread among environmentalists that free trade increases economic growth and that growth harms the environment is misplaced. "Growth enables governments to tax and to raise resources for a variety of objectives, including the abatement of pollution and the general protection of the environment." (Bhagwati 1993: 43).

Environmentalists question liberal economists' logic, especially because the former look at economic growth and environmental protection as goals at cross-purposes. Presenting the case of the environmentalists, Daly argues that "free traders seek to maximize profits and production without regard for considerations that maximization dictum represents hidden social and environmental costs and they also fail to appreciate that growth is increasing environmental costs faster than benefits from production, thereby making us poorer, not richer." (Daly 1993: 50). Placed in this context, one can observe an ongoing tussle between trade and environment in the United States (US) trade policy. While there has always been a very strong pro-environment domestic lobby in US, the US administration had traditionally avoided any diplomatic linkage between environment and foreign trade while inking bilateral trade agreements. The Canada-US Free Trade Agreement concluded in 1988 had been no exception, even though a conflict over acid rains was raging while the trade negotiations were in progress. However when the representatives of US, Canada and Mexico sat together to hammer out North American Free Trade Agreement (NAFTA), the rule against linking of trade and environment was abandoned and environmental demands were made a part of the mix of issues to be dealt with in what originally was to be a purely trade agreement. Thus, finalized in 1993, NAFTA, which creates a single free trade area by bringing together Canada, USA, and Mexico, emerged as the greenest ever trade agreement which linked two hitherto unrelated issues—the environment and foreign trade. While the coming into existence of NAFTA showed a way forward towards harmonizing of the contention between environment and trade, the question arises how did this happen?

Concerns over damage to the global environment, in particular the problem of global warming and the likely resultant climate change, became major political issues during 1988. Several scientific conferences during the 1980s were able to build a consensus that human emissions of carbon dioxide and other gases would lead to a warming of the earth's surface, with associated climatic changes that could produce substantial detrimental effects on human society. "These possible effects include sea level rise, changed rainfall and storm patterns, with consequent desertification and flooding, agricultural migration, and perhaps other unpredicted impacts. 1988 was a year of freak weather, of which the most politically important was the drought in the United States. As people began to realize that the decade of the 1980s was the hottest on record, the growing scientific consensus started to appear plausible to public and policy makers. These factors were reinforced by the general surge of concern over environmental issues in the late 1980s (particularly in the North) generated by acid rain, ozone depletion, local pollution problems, wildlife loss, and other phenomena." (Patterson & Grubb 1992: 294).

In the face of this growing awareness on environmental issues, it was no longer politically feasible to overlook the damage caused to the environment by economic activities. Thus, when Canada and US with their relatively advanced economies turned to trade relations with Mexico, the situation was considerably different. While Mexico is ahead of most other developing countries, the damage to the environment that has accompanied its industrial progress is unbearable. The pollution and the filthy living conditions in the maquiladora enterprises along the United States-Mexico border was there for all to see. While these conditions left nothing for imagination about the state of environment in Mexico, they also pointed at its weak environmental laws and enforcement mechanisms. (Fox 1995: 51)

When the administration in the US and subsequently the Canadian government proved receptive to the proposal of the Mexican President, some of the prominent environmental organisations saw a golden opportunity to enter the discussions. By seeking to safeguard the advances they had made in protecting the environment at

home, they could now also expand their influence on public policy abroad. They viewed the proposed trade agreement as an instrument by which they could also effectively press for improvements, while making a strong case that freer trade, by fostering unfettered development, could further aggravate ecological problems. Considering the environmental conditions in Mexico the case was easy to make. Environmentalists argued that the damage to the environment would only worsen as Mexico's already burgeoning economy expanded further as a result of NAFTA. According to Fox, environmental groups expressed two basic fears. "One was that unfettered economic development would further pollute the environment in Mexico. The other was that weaker environmental regulation of investment and exported products would by unequal prize competition endanger advances in protecting the environment already achieved in the United States and Canada." (Fox 1995: 53) To stay competitive, industries in US and Canada would lobby for lowering of environmental standards, and if this was not done, there was a possibility that they would shift across the border to Mexico where environmental laws are lax. This would be accompanied by job losses in the US and Canada leading to further pressure on the governments to reduce environmental standards. Faced with the relentless pressure of its environmental community, the US negotiators included environmental demands in the trade bargaining process, at first hesitantly. While the United States did not require this linkage between trade and environment to strengthen its position on trade but the position of the negotiators would have been somewhat weaker if there were vocal domestic opposition to a free trade accord at that time. Having tasted success in NAFTA, environmental NGO's and the environmental lobby the world over got emboldened and set their sights on exerting their influence in WTO—the mother of all trade agreements. Now their objective became to modify WTO in a way that trade becomes environment friendly. If this were to turn into a reality, in one stroke, they could make a global impact. Their rising influence was visible in Seattle where they were successful in scuttling the 1999 WTO Ministerial meeting with their protests.

Success for the environmental lobby in getting environmental provisions included in WTO in future rounds of trade negotiations would be strongly influenced by the position which United States would take on the issue. Being the biggest economy of the world, it carries a weight, which could make or mar the hopes of the environmentalists. However, the US administration has not been as forthright on this issue as it was at the time of signing of NAFTA. While the US has included environmental issues in its bilateral Free Trade Agreements (for e.g. US-Jordan Free Trade Agreement-2001), the Administration has maintained that this is not its position. However we can't overlook the fact that the US Congress has often mandated the imposition of certain unilateral trade sanctions in cases where exporters to the US do not follow environment policies proposed by the US. This study tries to understand the position of US trade negotiators on the issue of linking trade with environment in WTO. By analyzing the cases brought before the WTO Dispute Settlement Mechanism, an attempt is made to gauge the attitude of US trade policy towards incorporation of environmental standards for trade in the provisions of WTO. This exercise would also shed light on the reasons behind the hesitation displayed by US on a making the linkage between trade and environment universal. The study tries to show that US trade policy reservations on linking conduct of trade with environment globally prevents adoption of such a linkage in WTO.

How WTO Became A Part of Trade & Environment Debate

Established in 1947 and expanded through a number of rounds of trade negotiations, the GATT and its successor WTO has today become the world's most important trade agreement, with 164 signatory countries. The GATT's primary aim is to promote trade liberalization and, to this end, Article III of GATT (known as the 'national treatment' requirement) prohibits signatories from discriminating against each other's products on the basis of their national origin. However the GATT also provides for exceptions to this requirement. Measures that have a discriminatory impact on trade can be justified on a number of public policy-related grounds,

including the protection of human, animal or plant life & health (Article XX:b) & the conservation of exhaustible natural resources (Article XX:g). Such measures can be justifiably adopted only if they do not constitute arbitrary or unjustifiable discrimination and do not amount to disguised trade barriers.

This brief review of the most important GATT article makes it clear how trade dispute could arise concerning environmental rules and regulations. A government may enact an environmental regulation that in some way distorts trade to the detriment of one or more other GATT signatories but claim that the distortion is justified under Article XX. A disadvantaged government may, however, claim that the environmental regulation in question actually serves as a protectionist measure, a nontariff barrier to trade and should not be allowed under the Article XX exemption. The GATT & subsequently the WTO provided for mechanisms of dispute resolution to settle such disagreements.

The 1994 final act of the Uruguay Round of negotiations lead to the establishment of WTO which superseded the existing GATT structure. The WTO provided for a new set of compulsory dispute resolution mechanism to be supervised by a new dispute settlement body. Under the new procedures, panels are formed immediately upon receiving a complaint from an aggrieved government and defendant governments can no longer block the establishment of a dispute settlement panel or the adoption of a panel report. The new mechanism also provides for a standing, seven-member appellate body before which states can appeal the decisions of the panel. Thus under WTO dispute settlement procedure, the appellate body is the ultimate deciding authority on disputes. Finally the new dispute settlement mechanism establishes a number of new rules concerning deadlines for the legal procedures & tools that may be used to enforce panel decisions.

The potential impact of the GATT on domestic environmental legislations attracted almost no attention from the public or policy makers during the first four decades of the existence of GATT. During this period, GATT dispute resolution panels decided only three cases that involved conflict between trade and environment: one in 1982, one in 1987, and one in 1988. Two of the cases concerned disputes between

Canada and the US over fisheries, and the third involved a challenge brought by Canada, the European community & Mexico against excise provisions contained in the US superfund legislation. In each instance, the panel's ruling went by a similar set of principles: States could maintain any environmental regulations they chose as long as that environmental law applied equally to imported & domestic goods. These cases were important because they established legal principles that would be referred to in later decisions. However, because these decisions attracted so little attention, they did not test the willingness or determination of GATT panels to make highly unpopular rulings.

Along with the move towards initiating the formal inclusion of environment-related matters in the WTO, significant advancements have also been taking place on a parallel track within the Dispute Settlement System (DSS) of the WTO. The handling of recent environment & public health related disputes by the WTO Panels & Appellate Body (AB) displays a growing proclivity of the DSS to interpret existing WTO provisions in a manner which is sensitive of environmental concerns. The following review of the environment related disputes dealt with by the GAAT/WTO dispute settlement mechanisms would bring out the evolving response of the world trading system to the interlinking of trade with environmental issues. It would also help us in understanding the position of major stakeholders, including the US and the EU, on the role which WTO can and should play in the resolution of the conflict between trade and environment. What is important here is that these are the actual positions adopted by these countries on the issue of the conflict between trade and environment and that these positions are devoid of any posturing or grand standing. These cases also show how crucial WTO can be in protecting the trade interests of developing countries. So developing countries should carefully preserve and utilize this multilateral tool to protect their trade interests against sledge hammering from powerful developed countries.

Tuna-dolphin I Case

The relationship between free trade & protection of the environment came into the

spotlight in 1991 with the Tuna-Dolphin controversy between Mexico and the US. The history of this dispute dated back to the early 1970's when there was a huge public outcry in the US over the millions of dolphins suffocating in the purse seine nets used by US tuna fishing fleets. Public outrage encouraged the passage of the Marine Mammal Protection Act (MMPA) in 1972, which contained provisions establishing annual limits on the number of incidental dolphin killings by tuna fishermen. (Kelemen 2001: 628).

Through the 1970's & 1980's, as US fishing fleets improved their fishing practices or relocated to waters where dolphins were not at risk, Mexican tuna fleets, which did not employ the same techniques for protection of dolphins, emerged as the primary killers of dolphins in the Eastern Tropical Pacific waters. When Congress reauthorized the MMPA in 1988, it added a specific limit on foreign tuna fleets: If dolphin fatalities caused by a country's tuna fishing fleet exceeded 1.25 times the rates of the US fishing fleets, that country's tuna exports would be banned from the US. The US government did not move to implement this provision immediately, but US officials did prod the Mexican government to reduce dolphin fatalities. The Mexican government in response modified its tuna regulations & significantly reduced dolphin fatalities in the ensuing years.

However, Mexican efforts were not good enough to satisfy the US environmentalists. The Earth Island Institute & other environmental groups organized a boycott of canned tuna in 1988. In response, major US canned tuna producers announced that they would no longer sell tuna that is caught using techniques hazardous to dolphins. Congress enacted tuna-labeling legislation to ensure that only producers using 'dolphin-safe' labels could actually demonstrate that their tuna was dolphin safe. These legislative victories, however, did not stop the environmentalists. In 1990, the Earth Island Institute brought a case before a US district court demanding that the Department of Commerce implement the MMPA's restrictions on tuna imports. First it led to a ban on imports of tuna from Mexico, Venezuela, & Vanuatu because their fishing practices were in violation of the MMPA. Next it led to a secondary ban on tuna imports from Costa Rica, France,

Italy, Japan, & Panama because they imported tuna from the three countries that were directly banned.

Mexico brought a case against the US before the GATT in February 1991, charging that the US embargo and labeling law violated the GATT provisions. Australia, Canada, the EU, Indonesia, Japan, Korea, Norway, the Philippines, Senegal, Thailand & Venezuela supported the case of Mexico. The Mexican government argued first that the ban violated GATT's national treatment provisions by discriminating against Mexican tuna exports & second that this embargo could not be justified under the Article XX exceptions. Mexico further charged that the US dolphin-safe labeling requirement was in violation of GATT rules concerning national marks of origin. (Kelemen 2001: 629).

In legal parlance, this case differed from the previous trade-environment cases in a few important aspects. First while the earlier cases had focused on attempts to conserve national resources, this case dealt with an attempt to preserve a species globally. Second it was the first case to question the legality of a state's use of trade sanctions to influence the environmental policies of other countries. Third and most important, unlike earlier cases the Tuna-Dolphin I case generated a great deal of public attention because of the popularity of dolphins.

In August 1991, the panel issued its decision. While the panel upheld the dolphin-safe labeling regulation it ruled that the US trade embargo violated the provisions of GATT. The panel recorded its reasoning as follows: First, the embargo was in violation of the equal national treatment provision of GATT, Article III, because it restricted imports on the basis of how they were produced, even if there was no discernable difference in the end product (the tuna). Second, the embargo could not be justified under the exceptions contained in Article XX because of its 'extra jurisdictional' focus. A national measure that violated Article III could be justified under Article XX only if it targeted domestic production and consumption behaviour. The US tuna embargo regulation, by contrast, aimed at influencing practices outside of the US.

This decision of the GATT panel attracted widespread attention in the US, where

environmentalist pointed to the decision as evidence of the fact that GATT would imperil efforts to protect the environment. Congress criticized the ruling and made it clear that the GATT provisions should be changed to accommodate US environmental laws rather than vice versa. The US Administration realized that the public outcry regarding the decision might lead Congress to vote against ratification of both NAFTA & the Uruguay Round agreements. The US Administration pressured the Mexican government not to request the GATT General Council to officially adopt the panel ruling, because without official adoption, the US was not bound to enforce the decision. Fearful of jeopardizing the chances of US Congress ratifying NAFTA, the Mexican government conceded to US pressure and dropped the case. In 1992 the US, Mexico and 8 other nations signed an agreement to end the use of fishing techniques that killed dolphins by 1994. Congress also passed the International Dolphin Conservation Act, which asked the Secretary of State to work for negotiating an international agreement to end the use of purse seine nets. This move to a multilateral approach was in line with the suggestions made by the GATT panel on how to approach dolphin conservation in a manner consistent with the principles of free trade.

In this case, however, the political pressures on the GATT panel to uphold the US law were very low. There are two reasons for this: firstly, as the earlier trade-environment dispute rulings had attracted so little public attention, it is likely that the GATT panel underestimated the political impact its decision would have in the US. Had the GATT panel anticipated the full extent of the political backlash inside the US, it might have moderated its decision in some way so as to appease US environmentalists. Secondly, the US was completely isolated on the tuna-dolphin dispute. No other GATT signatory supported the US stand. Many governments, including powerful GATT signatories such as Japan & the EU actively declared their support of the Mexican position. Thus, even to the extent the panel could have anticipated backlash in the US, the panel could rest assured that an unhappy US would not be able to mount a multilateral attack. (Kelemen 2001: 631).

Tuna-dolphin II Case

Although the US and Mexico would have been happy to see the tuna-dolphin issue go out of public view, the Europeans put this issue back before GATT in June 1992. Because the Tuna-Dolphin I decision was never formally adopted by the GATT Council, the US was not legally required to repeal its tuna embargo. Although the US, Mexico and other states had amongst themselves agreed to phase out the use of purse seine nets gradually, in the interim, the US embargo remained in place. The embargo blocked import of tuna not only from states that failed to meet US dolphin protection standards but also from states that imported tuna from such states. As a result of this 'secondary embargo' tuna imports from Spain and Italy continued to be banned in the US. (Kelemen 2001: 631).

In response, the EU initiated a second case, the Tuna-Dolphin II, against the US. The Tuna-Dolphin II case put the GATT panel in a difficult spot. On the one hand, the political pressure to uphold the US legislation was very high. The panel was aware of the anti-GATT feelings that the Tuna-Dolphin I decision had sparked in the US and understood that ruling against the US again might attract renewed attacks on the GATT. On the other hand, the clear and recent precedent established in Tuna-Dolphin I called for a second ruling against the US legislation banning tuna imports. The Europeans case was nearly identical to that brought a year before by the Mexican government. Had the second panel dismissed the EU's complaint and ruled in favor of the US, it would have been viewed as bending before the public outcry in the US. Such a clear instance of politically contaminated jurisprudence would have damaged the legitimacy of GATT panels as independent arbiters of the law.

The Tuna-Dolphin II panel gave its decision in June 1994. On balance, the panel sided with the weight of the clear precedent established in Tuna-Dolphin I and ruled, once again, against the US embargo on tuna imports. However, the panel in Tuna-Dolphin II did make an effort to appease US environmental groups by making an important concession to environmental interests on a point of principal. The Tuna-Dolphin I panel had held that restrictions on trade with an extra jurisdictional

focus could not be justified under the GATT. In other words, state could not use trade restrictions in an effort to influence environmental policies of other states. By contrast, the Tuna-Dolphin II panel held that states could use trade restrictions to achieve environmental goals outside of their jurisdiction if this were done in accordance with an international environmental agreement. Later the US blocked adoption of the report of the panel and the decision, like the decision in Tuna-Dolphin I never went into force.

US Automobile Taxes Case

In 1993, the EU brought a case against the US before the GATT, arguing that three US automobile tax regulations discriminated against European automobile manufacturers. The first was a tax on 'gas guzzlers', the second was a tax imposed on luxury cars and the third and most significant was the Corporate Average Fuel Economy (CAFE) norms. Under the CAFE policy the sales-weighted average of an auto manufacturer's entire line of passenger cars must meet or surpass a federally established fuel economy standard or the manufacturer is liable to be subject to penalties. The CAFE policy distinguished between domestic fleets, defined as vehicles with 75% or more US &/or Canadian content and imported fleets, defined as those that fall below the 75% threshold. If the same manufacturer has both domestic & import fleets, each fleet must comply with the CAFE standards separately. (Kelemen 2001: 632).

The EU argued that all three of these measures were discriminatory and could not be justified under GATT's environmental exceptions clauses Article XX (g) or (d). First the EU pointed out that whereas European car makers made up only 14% of the US car market, they had been made to pay 80% of both the gas guzzlers and luxury taxes because they exported only top of the line cars to the US market. Similarly the EU pointed that European carmakers had been made to pay 100% of the CAFE penalties.

US carmakers were able to avoid CAFE penalties because they sold full lines of passenger vehicles. Under the CAFE approach, large fuel inefficient US

vehicles would be averaged with smaller, more efficient models in a manufacturer's fleet, bringing the fleet average below the federally mandated standard. By contrast European car makers, such as Mercedes and BMW, exported only luxury vehicles to the US and had no small, fuel-efficient cars to bring down their fleet's average fuel efficiency for meeting CAFE norms. As a result, European car makers were forced to pay substantial penalties whereas US manufacturers paid none. These taxes and penalties led to increase in prices of European vehicles in the American market and thus gave an unfair advantage to US made automobiles.

The threat posed by the potential political backlash in the US was especially high in this dispute. The GATT panel considered this dispute during a pivotal period for world trade. The Uruguay Round of GATT negotiations were underway, & the need for US Congressional ratification of any resulting amendments to the GATT provisions loomed in the near future. Environmentalists were among the most vocal critics of ratification. The GATT panel understood that ruling the US CAFE standards to be illegal would easily stir up a huge public outcry that could jeopardize Congressional ratification of the Uruguay Round agreement. "In an article published in June, while the case was pending, the Washington Post reported that 'defeat would have jarring, double barreled political impact in Washington' and would provide 'potent ammunition for a political attack on the global trading system' itself." (Kelemen 2001: 633).

Moreover, in the US Automobile Taxes case, the Europeans were alone in their opposition to the US legislation. Whereas GATT signatories were nearly unanimous in their opposition to the US stand in Tuna-Dolphin I & Tuna-Dolphin II, in this case, the Europeans had little support from other members. The other major player in the automobile trade, Japan did not oppose US CAFE standards because it had no problems in meeting them. Rather like the American carmakers, they benefited from this situation to the extent that European carmakers were disadvantaged in the US market by the law.

Most observers expected the GATT panel to rule against the US given the legal merits of the case. Luxury cars taxes, gas guzzlers taxes and CAFE standards certainly

had a discriminatory impact on European automobile exports to US markets and there were arguably less trade restrictive means by which the US might have pursued its regulatory aims. Nonetheless, given that the case raised new legal questions differing from those that had been addressed in earlier trade environment disputes; the panel was not highly constrained by precedent. The US Automobile Taxes panel gave its ruling on September 29, 1994, just before the US Congress was to vote on the Uruguay Round agreement. The panel gave its judgment in favor of the US on most aspects of the case. The panel ruled that the luxury tax and the gas-guzzler tax were in accordance with the GATT (Article III: 2) and could remain in place because they did not discriminate between products on the basis of their country of origin. However the panel's ruling on the CAFE standards was more nuanced. The panel distinguished between two aspects of the CAFE standards. First it ruled that CAFEs separate foreign fleet accounting requirement discriminated against foreign vehicles (violating GATT's Article III: 4 national treatment provision) and could not be upheld under the Article XX (g) environmental exception clause. The panel noted that separate foreign fleet accounting primarily served to restrict imports of small cars. This did not contribute directly to conservation of fuel in the US. The panel also ruled that the fleet averaging approach relied on in CAFE was in violation of the national treatment requirement. However the panel did not make a ruling on whether the fleet-averaging policy might nonetheless be justified under Article XX (g) environmental exception clause. The panel stepped delicately around this sensitive issue, implying that the fleet averaging method might be justified on environmental grounds but it stopped short of actually ruling one way or another.

Because it upheld US environmental laws in nearly all respects, the panel decision had the impact of silencing environmental critics of the GATT in the US. Public Citizen, a well-known NGO critical of the GATT made an initial statement critical of the ruling but withdrew the statement after staff attorneys had read the decision in its entirety. "The Washington Post called the ruling 'a badly needed boost for the administration's trade policy.' US Trade Representative Mickey Kantor immediately

proclaimed the ruling a victory for the United States, stating that: This decision is a recognition that our government-and those of other countries-have latitude to legislate and regulate in these crucial areas of environmental and consumer safety as long as they are not discriminating between domestic and imported products.” (Kelemen 2001: 635)

By ruling for the US on most aspects of the case, the GATT panel was able to avoid a potential catastrophe in the US Senate. Coming on the heels of the two tuna-dolphin cases, another attack on a US environmental legislation, particularly one so significant as the Clean Air Act, might have put ratification of the Uruguay Round agreements at risk. Instead, by ruling for the US on most aspects of the US Automobile Taxes case, the GATT gained at least a temporary respite from its critics.

US Gasoline Case

In the US Gasoline case, Venezuela (later joined by Brazil) argued that a US legislation concerning reformulated gasoline discriminated against their refiners. The Environmental Protection Agency (EPA) had issued the regulation, commonly referred to as gas rule, in December 1993 to implement portions of the 1990 Clean Air Act Amendments. The regulations required the sale of special, cleaner, reformulated gasoline in designated cities. Venezuela's complaint was related to the fact that the regulations placed different requirements on US and foreign refiners and that these differences disadvantaged Venezuelan refiners. (Kelemen 2001: 635).

In essence, the regulations required refiners to gradually reduce the level of certain pollutants in their gasoline. US refiners were permitted to use their actual 1990 level as baseline and to make reductions on a percentage basis. Foreign refiners, however, were required to use a baseline tied to the US average level from 1990. By requiring foreign refiners to use the US average rather than their own 1990 levels as a baseline, the regulations set a higher baseline for foreign refiners than the one that many US refiners had to follow. The EPA defended this approach on the grounds that few foreign refiners had collected the data necessary to establish their own 1990 baselines.

Venezuela filed a case with the GATT in 1993, arguing that the US law violated the GATT's national treatment provision. The White House recognized the fact that if the case came before a dispute resolution panel and was decided against the US, it could put the prospects for ratification of the Uruguay Round at risk in the US Congress. The White House therefore arranged for changes to be made to the rule to eliminate the discriminatory aspects and address Venezuela's complaint. In response, Venezuela withdrew its case. However the following year, the US Congress blocked the implementation of the revised legislation in an appropriations bill, forcing the EPA to revert to the old rule.

Venezuela resubmitted its case to the GATT in August 1994. When the WTO agreement entered into force in 1995, Venezuela withdrew its complaint and resubmitted the case under the new treaty, making it the first case to come before the WTO's Dispute Settlement Body. The Dispute Settlement Body constituted a new panel to adjudicate the dispute. The panel gave its ruling on January 17, 1996. The US then appealed the panels decision to the WTO's Appellate Body. The political circumstances that prevailed when the WTO Appellate Body considered the US Gasoline case differed significantly from those that the GATT panel had faced in the US Automobile Taxes case. By the time the US Gasoline case finally reached the WTO Appellate Body, Uruguay Round agreement had been ratified & the WTO was up and running. The political threat posed by US defiance was therefore reduced. Second, in US Gasoline as in the Tuna-Dolphin cases, the US was alone. In addition to Brazil & Venezuela the EU & Norway also opposed the US stand. The EU and Norway joined the case at the appellate stage, supporting Venezuela and arguing that the US law was applied as a disguised restriction on international trade. Legal pressures on the Appellate Body to rule against the US were significant. The US gas rule was clearly discriminating against foreign products on the basis of their country of origin and the US justifications for the rule were tenuous.

The Appellate Body gave its decision on April 22, 1996. First it determined that the US gasoline law was discriminatory and violated GATT's national treatment requirement. Next the Appellate Body held that the gasoline law did fall within the

general scope of the Article XX(g) environmental exception and thus might be permissible. Finally, however, the panel found that the gasoline law could not be justified because it failed the tests contained in the opening paragraph of Article XX. To qualify as an exemption under Article XX, a law could not constitute arbitrary or unjustifiable discrimination and could not serve as a disguised restriction on international trade. The panel deemed that the US gas rule failed on both counts: “It constituted unjustified discrimination and served as a disguised trade barrier that could not be justified under Article XX. In June 1996, the US government announced that it would propose changes to the regulations to comply with the WTO ruling. In August 1997, the US announced implementation of the WTO's recommendations.” (Kelemen 2001: 636).

SHRIMP-turtle Case

The Shrimp-Turtle case was remarkably similar to the two tuna-dolphin cases. Just as dolphins were killed in fishing of tuna, so too were sea turtles killed during the harvesting of shrimp. In 1988, acting under the Endangered Species Act, the US required all US shrimp fishing boats to install turtle exclusion devices (TED's) to prevent the incidental killing of turtles. In 1989, Congress enacted a legislation calling for a ban on shrimp imports from those countries that did not make efforts at protecting turtles similar to those made by the US. There were obvious similarities between the US approach to turtle conservation and its approach to dolphin protection, which the GATT had ruled as illegal. In both cases, the US attempted to use the threat of a unilateral import ban to put pressure on other states to protect a valued species. One important difference in the two disputes was that sea turtles, unlike dolphins, have long been recognized internationally as an endangered species under the Convention on International trade in Endangered Species of Wild Flora and Fauna. (Kelemen 2001: 637).

India, Malaysia, Pakistan and Thailand initiated a joint case against the US before the WTO in May 1998. They argued that the US rule was discriminatory and could not be justified under the GATT's Article XX(g) exemption. The complaining parties noted that whereas 14 countries of the Western Caribbean-Western Atlantic region

had been given 3 years to phase out the use of TED's (1991-1993), they had been given only 4 months. Also they complained that the US had acted unilaterally in its effort to protect turtles by making potential exporters to adopt a US policy on turtle protection rather than attempting to negotiate an international agreement. They pointed to Tuna-Dolphin I and US Gasoline cases as precedents that supported a judgment against the US. The US for its part argued that its law was justifiable on environmental grounds.

In adjudicating this case, the WTO Appellate Body faced another potential maelstrom. Sea turtle protection was being supported by a number of environmental groups in the US. Ruling against the turtle protection law threatened to reignite public opposition to the GATT/WTO on environmental grounds. On the other hand, the dispute brought by India, Malaysia, Pakistan & Thailand had clear legal merit. Previous case law namely Tuna-Dolphin I, Tuna-Dolphin II & US Gasoline, clearly indicated that the use of unilateral trade sanctions in the pursuit of environmental goals, in the absence of efforts to pursue bilateral or multilateral solutions, violated the GATT. While political consideration pointed in one direction, legal principles pointed in another.

The Appellate Body gave its decision on October 12 1998. It ruled against the US law in the case at hand but granted a victory to environmental interests on important points of principle. This approach allowed it to maintain legal consistency while mitigating criticism from environmentalists to an extent.

The Appellate Body found the US to be wrong on two points. First, although the US might be justified in demanding that other states follow conservation policies comparable to its own, the US went too far in its application of the TED requirement because it forced other countries to adopt a policy that was essentially the same as the US policy. Second, the Appellate Body ruled that the US had made enough efforts to pursue bilateral or multilateral approaches to turtle conservation with the appellees before it applied its own unilateral sanctions. Based on these two failures, the Appellate Body decided that the US regulation constituted unjustifiable and arbitrary discrimination and thus violated the conditions of the opening paragraph of Article XX.

While the Appellate Body ruled against the US in regard to the specifics of the TED requirement, it ruled in favor of US environmental interest in regard to three important points of legal principle. First the Appellate Body signaled that trade restrictions based on production process methods could be used for environmental protection purposes. This determination was in direct contradiction with the position established by the panels in the two Tuna-Dolphin cases. Second the Appellate Body ruling indicated that trade barriers could be applied to protect natural resources (including species) outside a countries' own borders. Third it ruled that WTO dispute settlement panels could consider briefs voluntarily submitted by interested groups. This determination addressed long-standing complaints by environmental NGO's that the WTO dispute resolution process was closed to inputs from civil society.

The new principles determined in the Shrimp-Turtle case were considerably more proenvironment than those that had been established by GATT panels in the earlier Tuna-Dolphin cases. Thus, even though environmental interests were handed a defeat on the issue at hand in the case, they were granted important victories on points of legal principle that will have an impact on future cases.

By granting partial victories to environmentalists, the WTO assisted the US government deflect criticism from environmentalists in the wake of the decision. Most environmentalists who were focused on the immediate defeat concerning the turtle protection measures said that the decision demonstrated once again that the WTO was anti-environment and could ride roughshod over US environmental laws. "A spokesman for a coalition of US environmental NGOs was quoted as saying, 'The decision proves once and for all that the WTO is broken and must be fixed.'

However, the US government seized on the principles enunciated in the ruling and portrayed it as a victory for US environmental interests. US Trade Representative Charlene Barshefsky stated that the decision 'does not suggest that we weaken our environmental laws in any respect and we do not intend to do so.' Such comments belied the fact that the US had already acted to amend the offending law after the initial panel decision. In August 1998, the US Department of State amended US regulations, eliminating the blanket ban on shrimp from foreign countries that had

not been certified by the US. Rather shipments of shrimp would be judged individually; those that had been caught by boats using TED's would be permitted, regardless of whether the country they came from had been approved by the US. On November 26 1998, the US informed the WTO that it would comply with the Appellate Body ruling.” (Kelemen 2001: 639)

ASBESTOS Case

Another important case with important implications for the trade-environment conflict is the WTO Asbestos Case.

In March 2001, the WTO Appellate Body (AB) delivered a landmark judgement in the European Communities-Measures Affecting Asbestos & Asbestos Containing Products Case. In this conflict between Canada & France, the AB confirmed that France's import ban on chrysotile asbestos, imposed on grounds of public health protection, was consistent with WTO rules. This decision of the AB activated for the first time, the public health environment exception embodied in Article XX(b) of the WTO General Agreement on Tariffs & Trade. The most significant aspect of the AB's decision was its reversal of the original panel's finding that toxicity of a product was irrelevant in determining its 'likeness' with competing products. (Negi 2003: 94).

In 1998, Canada, which is the world's second largest producer & largest exporter of white (chrysotile) asbestos, challenged, at the WTO, the French government's 1996 ban on the manufacture, sale & import of all forms of asbestos & asbestos containing products. According to Canada, the French prohibition was unnecessarily restrictive of trade & violated the WTO Agreement on Technical Barriers to Trade (TBT Agreement) as well as the 'national treatment' clause of GATT embodied in Article III.4, as it discriminated against a Canadian good while allowing the use of 'like products', i.e. domestically produced asbestos substitutes. EC defended the measure under the 'public health' exception provided in Article XX(b), and claimed that asbestos was a known carcinogen causing an estimated 2,000 deaths a year in France alone.

Canada did not dispute the toxicity of asbestos. But it challenged the outright ban on chrysotile fiber & products containing it, based on the claim that chrysotile

asbestos was safe under 'properly controlled use.' Canada saw the French import ban more as an effort to protect domestic asbestos substitute makers and not as a legitimate public health measure.

In the EC's view, an outright ban was the only effective option available to deal with the health risks posed by the use of asbestos. More significantly, the EC contended that chrysotile asbestos & substitute products couldn't be described as 'like products' because they differ in chemical composition as well as in toxicity.

The Asbestos ruling had important implications for the larger trade-environment debate. Never earlier in the history of the GATT/WTO DSS had an otherwise GATT-inconsistent measure been upheld under the Article XX (b) or (g) exception. The fact that no environmental provision was actually upheld under the environmental exceptions provided in Article XX was central to the criticism that the WTO DSS does not adequately serve environmental concerns. In previous WTO cases, though some environmental measures had been held to be provisionally justified under the Article XX(g) exception, they were not able to qualify for the final justification required under the chapeau of Article XX. This resulted in the criticism that though the Article XX exceptions were being interpreted liberally, the strings were being tightened on chapeau requirements of Article XX, in effect making it impossible for any environmental provision to be justified under this provision. The Asbestos panel ruling, which was upheld by the AB as well, established for the first time that an otherwise GATT-inconsistent, trade-restrictive measure was upheld for non-trade reasons under the human health exception provided in Article XX.

A concern triggered by the Asbestos case was the potential creation of an artificial hierarchy between measures aimed at the protection of human health and those purely aimed at protection of the environment. In other words, the question that arose was whether the WTO DSS would go to this extent to justify a trade-related environmental provision that did not have a direct and immediate impact on human health.

The Asbestos ruling is another link in the chain of incremental changes being brought about by WTO DSS relating to non-trade issues such as public health and protection of the environment. In many ways, Asbestos case marked a milestone in

the WTO's journey onto the highway of sustainable development.

First, it upheld, for the first time in GATT/WTO history, a trade restriction to protect human health. Second, by accepting the criterion of 'toxicity' in the evaluation of 'like products', the AB refused to accept a purely market based analysis of products. It ruled that a harmful product couldn't get the same free trade benefits under WTO rules as a harmless one. This interpretation provides greater maneuvering space for trade related environmental measures to be excused from core WTO obligations relating to free trade. Third, it anticipated and prepared itself for accepting and considering amicus curiae briefs, through as per established procedure, thus further strengthening the cause of transparency and openness of proceedings in the WTO.

On the flipside, however, the ruling had its limitations and also raised various questions. The case has direct impact on lives of human beings, as opposed to environmental concerns that have a less tangible immediate impact on human life. Will an environmental measure find justification under the Article XX exceptions in the near future even if it did not have implications for human health? There was no scientific uncertainty involved in this dispute. Would an environmental measure based on less conclusive scientific evidence find justification?

The positions adopted by the US and also of players like EU and Japan in the above analyzed cases clearly reveals that it is not about environment but about protecting market share and trade interest and environment is used either as a shield or a weapon depending on the requirement of the situation by the developing world to protect its trade interests. So the fear of the developing countries about developed countries using environment to restrict their market access to the developed world markets are not completely unfounded. For all countries trade interest is paramount and their stand on environment changes according to what suits them in a situation.

In all these case we can also see a trend of WTO becoming more sensitive to environmental interests and handling such disputes with greater care. The Shrimp-Turtle case also opened a window for environmental groups and NGOs to participate in the decision making process. This indicates that the WTO is likely to

move in the direction of a more explicit linkage between conduct of trade and protection of the environment in the times to come. This is going to have important implications for developing countries. In all situations it is the powerful who benefit the most. So if a linkage between trade and environment goes through into the provisions of WTO it is almost certain that it would be misused as a non-tariff barrier by the powerful developed countries against the much weaker developing countries. In view of this reality, developing countries should opt for a multilateral solution outside of the WTO for protection of the environment in order to safeguard their economic interest.

In spite of the clamor from enthusiasts of the environment that the WTO should become involved directly with promoting environmental goals and policies, many members of the WTO, and not only developing countries, are concerned that it should not stray from its central objective of promoting freer trade. They see dangers of a creep of environmentalism in the WTO, which could be counter productive to the objective of freeing of trade and could spill over into green protectionism.

Hence, the objection to bringing the subject of environment in WTO. However, it is not true to say that the aim is to introduce the environment into the WTO.

Environmental action is already there in the WTO in the form of exceptions allowed to freer trade for the protection of plant, animal and human life and health. The WTO also permits action to conserve natural resources and it tolerates subsidies and other support measures that encourage environmental protection.

What those who object to environment in the WTO are really concerned about is avoiding use of the WTO in a primary or direct role to promote environmental objectives. They do not see a need for the WTO to go beyond its current role, where trade restrictions may apply only when the product and services incorporate characteristics, which in their use in the importing country could have environmentally damaging effects. They firmly object to, and draw a line against, taking into account PPMs and the extra-territoriality involved.

But even in this stance, the question arises of whether, with the rise in environmental concerns and actions in the world, there is not a need for

improvement and refinement of the present regulations relating to the environment in such areas as SPS, TBT, eco-labelling and TRIPS. New issues are also coming up, for example GM foods. Knowledge and perceptions the world over are changing and when existing rules are inadequate or too ambiguous to cope, disputes will arise. The risk is that the major role in rule making will slip from the legislative side of the WTO to its judicial side.

While it is crucial to resist contamination of the WTO with environmentalism, there is nevertheless the need for engagement in the WTO to improve disciplines in environment related trade areas such as SPS, TBT, eco-labelling; to widen the concept of intellectual property to include traditional knowledge; and to improve access for environmental goods and services. Even developing nations, the strongest critics of environmentalism in the WTO, have much to gain from avoiding excessive use of eco-labelling and eco-standards and regulations; from improvements in the environmental provisions in the TRIPS; and from freer access for goods such as organic foods.

In the relationship between MEAs and the WTO it is important that the WTO is not used to reinforce the aims of MEAs, which often go beyond trade related concerns to include PPMs. Where conflicts arise between MEA members in an MEA related matter, it is appropriate for the dispute settlement mechanism of the MEA concerned to be involved. When it is between a member and a non-member who is a member of the WTO, then it is appropriate for the WTO dispute settlement to be involved and for WTO rules to be applicable.

Exchange of information and experience is also important between MEAs and the WTO. An area where the WTO can have a beneficial influence on MEAs in an informal way is in improving the latter's use of trade provisions, an aspect in which the WTO has greater experience.

The reluctance of the US administration on linking of trade with environment is obvious from the review of the dispute brought before the WTO, which involved US. And there were many such disputes. So the Administration cannot be oblivious to the fact that linkage and its repercussions might not only affect trade prospects of US but also has the potential of vitiating the general political climate in the US. Thus

the same hesitations and doubts about linking trade with environment which were there at the time of negotiation of NAFTA are still lingering. This means that US administration would only go so far on the linking of trade and environment in WTO as would be required to pacify the domestic environmental lobby and ensure its passage in the US Congress.

The fear of sovereign infringement of its laws is also likely to prevent USA from fully going with WTO on environmental issues. Also these laws would be binding and USA never likes that and has already burnt its fingers in cases like tuna-dolphin. So it would not want to add to it and do something which would increase environmental opposition to trade in domestic politics inside USA.

The lack of refusal to sign Kyoto protocol is a clear example that for US and other developed countries, it is not about environment but primarily about protecting their respective trade interests.

When it comes to the conflict between trade and environment its not just a simple divide between the Global North and the Global South. There is no unity among the developed world as well. Thus US and EU do not see eye to eye on many issues and have been in conflict over many issues including cases before the WTO. Due to these multiple divisions the possibility of environment finding a place in WTO, something which environmentalists want, is very remote. However the fact remains that over the years WTO has become more sensitive towards environmental concerns and priorities.

Not just the US and EU, other important players such as Japan and Canada are also mostly giving lip service to inclusion of environmental issues. So inclusion of environmental provisions in WTO rules is likely to be very farfetched. Environment has been used by various parties as a tool to push forward their trade interest at various times. This is obvious from the trade disputes which have come before the GATT/WTO. Thus these divisions are going to be the biggest hurdle for the dreams of environmentalists in pushing WTO in a green direction. But the question is, should WTO be moving in a green direction, or is it advisable for WTO to go green.

Liberal economists are united in saying that it is not a good idea to make WTO look after both trade and environment. According to them, a better way out would be to

have separate institutions for the two issues. WTO should continue to focus on liberalisation of world trade and separate Multilateral Environmental Agreements need to be negotiated to solve pressing environmental problems. As the Tuna-Dolphin case revealed, environmental problems can effectively be solved multilaterally with both developed and developing countries coming forward to find solutions that work.

Further, if at all there is a linkage in WTO, it would be a basic level linkage due to presence of developing countries, which would not satisfy the US environmental lobby. So US government would not want such a limited linkage as it would not be in consonance with the strong US environmental laws thus leading to a conflict or clash where WTO would repeatedly declare US environmental laws invalid in trade disputes brought before it.

The trade disputes brought before WTO show that WTO is continuously faced with this conflict between trade and environment. However, WTO rulings show that WTO is bending before environmentalists. Its rulings are appearing to be increasingly sensitive to the ideas of environmentalists. So the move to a linkage is a definite possibility in the near future. But a lot would depend on the opinion of the major stake holders like US. While there is no obvious pressure from the US establishment to direct WTO to a green avenue, there can be no doubt that there is a very strong pressure of civil society spear headed by environmental NGOs, as is obvious from the study of these cases. So under pressure from its domestic environmental lobby US could move in direction of batting for a linkage between trade and environment in WTO in the near future. This could be a red signal for developing countries.

Of course, what is finally going to happen in WTO on the issue of trade and environment would take into account views of other major stake holders such as EU and Japan. But it is also a certainty that no agreement in resolving the differences between the trade and the environmental lobby would be successful without the involvement of US. Being the largest economy, it does have the influence to shape the final decision on the issue. And there in lies the power of the US environmental lobby.

It appears that US political leadership is likely to pay more and more weightage to the domestic environmental lobby and this lobby is likely to become stronger in times to come. A strong indicator of the influence of this lobby is President Clinton letting go of the Free Trade Area of Americas agreement due to the campaign of the environmental lobby against the agreement. The US leadership is flexible and pragmatic on the issues of linking trade and environment as is obvious from stand of White House in various cases before the WTO, but the US public opinion and the US Congress would stonewall any move which is not green. So US leadership will not be left with any choice but to support greening of WTO whenever WTO reaches that point. Without this it would not be able to get Congressional approval for it. But US government does not want the linkage. So it is not likely to actively pursue it in WTO. Another important aspect is the ambiguity of the US administration in its position on linkage of trade and environment in WTO. Historically US trade policy has been wedded to multilateralism. But it used NAFTA to counter emergence of European Union, a move towards regionalism. Also while both US and EU talk of free trade, they both have also been protectionist when it comes to agriculture. Apart from the drift away from multilateralism US position is also affected by the strong pro environment stand of global NGOs and protectionist pressure inside the US political space. That is why US is showing an increased preference for regional agreements where it is in a better position to control these factors which affect its interests rather than a WTO where it is reduced to a minority in face of opposition from developing countries. US would also be negatively affected by these environmental problems, for e.g. the beef hormone case and concerns about genetically modified food in European countries of which US is the biggest exporter. This clash with trade priorities is likely to slow down US thinking over linking of trade and environment in WTO.

While the environmentalists exert their pressure, we cannot ignore the free trade lobby the big businesses and trans national corporations which benefit from free trade and which would not like the linkage. So it is their presence which is another factor which would ensure that the linkage never takes place in WTO. But it is also true that industry lobby might attimes lobby for a particular

environmental measure for its protectionist benefits. But if we look at the larger picture, then industry would side with free trade on the linkage issue. Especially, industry with an international presence. Also most politicians and trade bureaucrats are skeptical of the demands of environmentalists. Although they might not say this in open.

The United States has traditionally resisted participation in international institutional arrangements perceived as jeopardizing its political autonomy. There was nothing about the proposed NAFTA that suggested a change in this long running US position. In fact, it may be recalled that in the negotiations for NAFTA, among other factors, both Canada and Mexico were in favor of including environmental standards so as to curb US arbitrariness on this issue. Further, environmentalists expressed these anxieties before the passage of NAFTA and continue to express these same fears at the negotiations of the Free Trade Agreement of the Americas (FTAA), where negotiators are ignoring environmental issues.

The varying stand on environmental issues of US, EU, Japan and other major economies of the global trading system convincingly proves that it is not about environment but about protecting market share and trade interest and environment is used either as a shield or a weapon depending on the requirement of the situation by the developing world to protect its trade interests. So the fear of the developing countries about developed countries using environment to restrict their market access to the developed world markets are not completely unfounded. For all countries trade interest is paramount and their stand on environment changes according to what suits them in a situation.

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End Notes

1. Maquiladoras are manufacturing facilities that imports materials and equipment on a duty-free and tariff-free basis. Maquiladoras receive raw

materials from companies in the U.S. to assemble and export back as finished products. Maquiladoras are generally owned by US companies that are incentivized to build Maquilas in Mexican border towns in return for low-cost labor and savings.

2. The Clean Air Act passed in 1970 and subsequently amended in 1990 is the comprehensive federal law that regulates air emissions from stationary and mobile sources. Among other things, this law authorizes EPA to establish National Ambient Air Quality Standards (NAAQS) to protect public health and public welfare and to regulate emissions of hazardous air pollutants.

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