

INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE, ECONOMICS & MANAGEMENT

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CONTENTS

Sr. No.	TITLE & NAME OF THE AUTHOR (S)	Page No.
1.	PSYCHOLOGICAL CONTRACT: A REVIEW OF CONCEPT, FORMATION AND MUTUALITY DEBATE <i>DR. K G SANKARANARAYANAN & PARESH R. LINGADKAR</i>	1
2.	A STUDY ON DEALERS, DISTRIBUTORS, AND ENGINEERS PERCEPTION TOWARDS PIPE INDUSTRY IN NORTH GUJARAT WITH SPECIAL REFERENCE OF ASTRAL POLY TECHNIK LTD. <i>KALPESH B. PRAJAPATI & MAHESH K. PATEL</i>	4
3.	FOR COMING EFFECT OF IRAQ'S ACCESSION TO THE (WTO) IN THE MANAGING OF TAX & CUSTOMS REVENUES <i>HUSAM YASEEN MOHSIN & KEZHONG ZHANG</i>	9
4.	UNDERSTANDING THROUGH LITERATURE REVIEW THE BEHAVIOURS ASSOCIATED WITH SAFE DRIVING ON THE ROADS <i>RICHARD VINCENT D'SOUZA & K JANARDHANAM</i>	15
5.	THE IMPLEMENTATION OF ALTERNATIVE DISPUTE RESOLUTION MODEL FOR CONFLICT RESOLUTION TO IMPROVE PUBLIC SERVICE OF INDONESIAN POLICE: SOCIETY CONFLICT RESOLUTION BY THE IMPLEMENTATION OF ALTERNATIVE DISPUTE RESOLUTION CASE STUDY IN POLRESTA SURAKARTA/SURAKARTA POLICE <i>RUDI HARTONO, DR. SRI SUWITRI, NYOMAN SERIKAT P. JAYA & HARDI WARSONO</i>	22
6.	WORK LIFE BALANCE OF ENTREPRENEURS: A GENDER ANALYSIS <i>DR. KASAMSETTY SAILATHA & DR. M. SHIVALINGE GOWDA</i>	27
7.	DETERMINANTS OF SESAME TRADERS' WILLINGNESS TO SUSTAIN THEIR TRADING THROUGH ETHIOPIAN COMMODITY EXCHANGE (ECX) IN ETHIOPIA <i>ASMELEASH ADDIS CHEKOL, DR. TEFATSION SAHLU DESTA & RAHWA GEBRE TEFSAHUNEY</i>	32
8.	FORMATIVE EVALUATION OF NIGERIA'S CONTRIBUTORY PENSION SCHEME IN NATIONAL OPEN UNIVERSITY OF NIGERIA, LAGOS <i>DR. CLEMENT IKENNA OKEKE</i>	42
9.	FACTORS THAT AFFECT LOAN REPAYMENT PERFORMANCE OF SMALLHOLDER FARMER BORROWERS FROM MICROFINANCE INSTITUTIONS IN ETHIOPIA: A SURVEY STUDY OF AMHARA CREDIT AND SAVING INSTITUTION (ACSI) – FOGERA WEREDA, AMHARA <i>ASNAKE WORKU WUBIE, DR. TEFATSION SAHLU DESTA & RAHWA GEBRE TEFSAHUNEY</i>	50
10.	IMPACT OF EXPORT EARNING INSTABILITY ON ECONOMIC GROWTH <i>DR. FIROZ ALAM</i>	58
11.	QUANDARIES OF INDIAN WOMEN DUE TO MISCONCEPTION REGARDING EMPOWERMENT CONCEPT <i>AMISHA SHAH</i>	62
12.	MICRO-FINANCING: ITS IMPACT ON ECONOMIC DEVELOPMENT OF RURAL PEOPLE: A STUDY ON THE SHGS LINKED WITH REGIONAL RURAL BANKS IN LAKHIMPUR DISTRICT OF ASSAM <i>SRI. DIGANTA KUMAR DAS</i>	65
13.	A STUDY OF PERCEPTION OF INDIVIDUAL INVESTORS TOWARDS MUTUAL FUNDS-WITH REFERENCE TO GUJARAT STATE <i>DR. CHETNA CHAPADIA (MAKWANA)</i>	70
14.	ECONOMIC EMPOWERMENT OF WOMEN THROUGH KUDUMBASHREE WITH REFERENCE TO PUNNALA GRAM PANCHAYATH OF PUNALLOOR, KOLLAM DISTRICT, KERALA STATE <i>LIGI JOLLY</i>	75
15.	NEED OF ENVIRONMENT CONSERVATION FOR THE SUSTAINABLE LIVELIHOODS <i>GHANSHYAM KUMAR PANDEY & SEEMA KUMARI</i>	79
	REQUEST FOR FEEDBACK & DISCLAIMER	83

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PSYCHOLOGICAL CONTRACT: A REVIEW OF CONCEPT, FORMATION AND MUTUALITY DEBATE

DR. K G SANKARANARAYANAN
DIRECTOR
ZANTYE COLLEGE RESEARCH CENTRE
NARAYAN ZANTYE COLLEGE OF COMMERCE
BICHOLIM

PARESH R. LINGADKAR
RESEARCH SCHOLAR, ZANTYE COLLEGE RESEARCH CENTRE, BICHOLIM
ASST. PROFESSOR
NARAYAN ZANTYE COLLEGE OF COMMERCE
BICHOLIM

ABSTRACT

The psychological contract is a frequently deployed construct to examine the dynamics of the employee employer exchange relationship. While there is consensus that the contract comprises employee and employer beliefs regarding this relationship, the various belief types are not conceptually well-defined and understood. Over time, the contract has been conceptualised as comprising expectations, obligations, promises or some combination therein. While most contemporary researchers focus solely upon promises, the justifications for this position are unpersuasive. The paper particularly focused on conceptualizing psychological contract, its formation as well as debating on whether mutuality exists between employees and employers on psychological contract. The paper concluded on the proposition that psychological contract has a strong association with organizational outcomes; that when an employee perceives psychological contract as being faithfully honored by employer, she/he tends to reciprocate with positive outcomes, and when the opposite prevails, it is also followed by suiting negative behaviors.

KEYWORDS

Psychological contract, Mutuality, Organizational outcomes, Breach.

INTRODUCTION

The notion of a psychological contract implies that the individual has a variety of expectations of the organization and that the organization has a variety of expectations of him (Armstrong, 2009). These expectations not only cover how much work is to be performed for how much pay, but also involve the whole pattern of rights, privileges, and obligations between worker and organizations. Accordingly, expectations such as these are not written into formal agreement between employer and organizations, yet they operate powerfully as determinants of behavior (Denisi and Griffin, 2005).

Although not acquiring construct status until the early 1990s (Millward & Brewerton, 1999), the 'psychological work contract' can be traced back to as early as 1960 when Argyris (1960) in Anderson & Schalk, (1998) used the term to describe the relationship between the employees and foreman in a factory in which they were conducting research. They saw that employee /employer relationship as being dominated by an environment within which the employees would maintain high production with minimal grievances if the foreman respected the norms of their informal culture.

The psychological contract is a construct which examines the employee-employer exchange relationship. However, the beliefs variously posited as constituting the contract are not conceptually well-defined and understood. This has resulted in contemporary justifications for a focus upon particular belief types, specifically promises, over others being unpersuasive. This paper contributes to the debate regarding the constituent beliefs of the contract and clarifies a key theoretical tenet of this construct which is widely employed by both academics and practitioners.

Early authors conceptualise the psychological contract as comprising mutual expectations, often with a compelling and normative basis, which are largely implicit and unspoken (Argyris, 1960; Levinson, Price, Munden, Mandl and Solley, 1962). Employees' expectations are held consciously (relating to job performance and security) or unconsciously (relating to motivational drivers and psychological needs) and form through both intra- and extra-organisational factors (Levinson et al, 1962; Schein, 1970; Kotter, 1973). Rousseau (1989) reconceptualised the contract as being solely constituted by beliefs about perceived promises made within the current employment relationship. She argues that violated, or unfulfilled, promises produce more intense and emotional responses than unmet expectations (Rousseau, 1989). Rousseau (1995; 2001) also describes promises as either 'explicit' (conveyed via speech or writing) or 'implicit' (derived from observations and interpretations of actions). This distinction now forms the basis for describing contract-related promises (Conway and Briner, 2005; Sparrow and Cooper, 2003). Notwithstanding the ongoing interchangeable use of the terms expectations, obligations and promises, most contemporary researchers adhere to Rousseau's (1989) contract conceptualisation.

CONCEPT OF PSYCHOLOGICAL CONTRACT

Psychological Contract can be defined as "The unwritten understandings and informal obligations between an employer and its employees regarding their mutual expectations of how each will perform their respective roles". Within a typical business, the psychological contract might include such things as the levels of employee commitment, job satisfaction and the quality of working conditions.

In management, economics and HR (human resources) the term 'Psychological Contract' commonly and somewhat loosely refers to the actual - but unwritten - expectations of an employee or workforce towards the employer. The Psychological Contract represents, in a basic sense, the obligations, rights, rewards, etc., that an employee believes he/she is 'owed' by his/her employer, in return for the employee's work and loyalty.

The psychological contract defines what the individual expects from the organization in order to achieve and maintain psychological wellbeing. Individuals are attracted to an organization because they believe the organization has the potential to contribute to their wellbeing. What that contribution will be, and how it will be delivered, is embedded in both the formal employment contract and the psychological work contract. If either contract is breached or violated, the individual will act to address the perceived injustice. The worker-employer psychological contract is a huge force in the work relationship dynamics.

From the employer's view, employees do not have lifetime jobs, guaranteed advancement or raises, or assurance that their work roles will be fixed. However, the most admired employers believe that openness, integrity, providing opportunities, and supporting the growth and development of their employees are top priorities. They perceive this as the unwritten contract they have with their people. On the other hand, employees believe that employers must be honest, open, and fair and also willing to give workers a large say in their jobs. As Allen (1995) claimed, supported by Brown (1996), an assessment of how personally beneficial or detrimental the work environment is to their wellbeing, and whether the organization cares about their wellbeing, is continually being made by employees. This assessment will influence the extent to which employees have themselves engaged in the workplace (Kahn, 1990).

THE PSYCHOLOGICAL CONTRACT: FORMATION

The concept of the Psychological Contract within business, work and employment is extremely flexible and very difficult (if not practically impossible) to measure in usual ways, as we might for example benchmark salaries and pay against market rates, or responsibilities with qualifications, etc.

The Psychological Contract is quite different to a physical contract or document - it represents the notion of 'relationship' or 'trust' or 'understanding' which can exist for one or a number of employees, instead of a tangible piece of paper or legal document which might be different from one employee to another.

How psychological work contracts form is answered simply by Andersson (1996), who suggested that a contract emerges when an employee perceives that the organization is obligated to reciprocate in some manner in response to contributions he or she has made. The process of psychological contract formation, appraisal, and assessment is iterative and provides both the structure of the contract and its content. Within that structure, and based on the content, the contract establishes the mechanisms (constructive, interpretive, and corrective) through which individuals seek meaning from the work they pursue, and from the organizational climate and environment within which that work is performed.

As Sonnenberg (1997) proposed, expectations or hopes of personal development, reward, adjustment and regulation are generally present in the work one is engaged in. Individuals enter an organization with a set of beliefs, values, and needs, and with the expectation that these will be met, upheld, and respected, and their wellbeing ensured, preserved, and protected. This is the socialization process referred to as 'sense making' by de Vos, Buyens, and Schalk (2003).

The core of the psychological contract concerns the exchange of promises and commitments (Guest & Conway, 2001). Within this context, the content of the contract is about cognitions, perceptions, expectations, beliefs, promises, and obligations. That is, it is concerned with non-tangible psychological issues (Makin, Cooper, & Cox, 1996). These cognitions, perceptions, and expectations, and so forth, form part of the psychological and implicit employment contract coexisting with the explicit, formally documented and legally binding contract of employment.

Coyle-Shapiro and Conway (2005) suggested that, within the context of social exchange, the psychological contract is one way of operationalizing the employee-employer exchange. Understanding employee expectations relating to that social exchange may help identify the factors that shape employee perceptions of the psychological contract. One of those factors is reciprocity which provides a basis for a global evaluation of the employment relationship by the employee (Coyle-Shapiro & Conway, 2005). The evaluation of the employment relationship by the individual is in itself likely to influence the content of the psychological contract.

Although no totally encompassing definition of psychological contract content prevails, some appreciation of potential content may be acquired through the research efforts of the many researchers who have developed measures on ad hoc basis to meet their particular requirements. What hampers consensus on content are the many factors at individual, organizational, and societal levels that influence contract formation, and hence the resulting content. These influences must be taken into consideration when developing measures of the psychological contract for it is these influences that hinder the development of a generic measure.

The concept of a 'contract' naturally conjures up the expectation that two parties are involved and hence mutuality concerning understanding and appreciation of contract obligations results. However, as psychological contracts exist in individuals' minds alone, the question arises as to how mutuality, through the involvement of the other party to the contract occurs. Again the major problem associated with psychological contract remains that it is an idiosyncratic construct; of which what employee one considers as psychological contract fulfillment may not be so deemed by employee two. The concept of mutuality is explored next.

MUTUALITY DEBATE

Mutuality in contracting refers to the perceptions shared between the two parties to a contract, of the obligations and expectations each party holds, under the terms and conditions of that contract. Contracts are generally formed between two parties, thus providing mutuality with respect to the management, acceptance and interpretation of the contract. In normal legal contracts each party has its perceptions concerning contract obligations and it is these shared perceptions that provide mutuality. However, psychological contracts are formed by only one party, the employee, who provides that mutuality by adopting a two-party (employee and organization) perspective. This concept of mutuality permeates (Goddard, 1984) even though psychological contracts are typically viewed solely from the employee perspective.

Confirming this, Rousseau (1995) stated that the most general description relates to the belief in obligations that exist between two or more parties, with this belief largely being created through communications underpinning organizational human resource practices. Anderson and Schalk (1998) also argued that mutual obligations are the central issue in the relationship between employer and employee.

Although these mutual obligations may be to some extent recorded in the formal employment contract, Anderson and Schalk contended that they are mostly implicit, are covertly held, and only discussed infrequently. Formal contracts are 'normally' entered into between two or more parties with each party holding a written 'copy' of the contract that clearly spells out the terms and conditions. Before contracts are signed, and from that point becoming legally binding, any ambiguities or misunderstandings are resolved by the parties to that contract. However, the same process does not occur with psychological contracts.

Psychological contracts, by definition, are held in the minds of the holders and are not formally negotiated. Therefore, the extent to which the terms and conditions are shared between the parties involved is difficult, if not impossible to assess. This situation raises the perplexing question as to how the mutuality inherent in a formal written contract can also be inherent in a psychological contract. For example, an organization's perspective on the content of an employee's psychological contract be assessed? Can a psychological work contract, held in the mind of an employee, become 'known' to the organization?

Two issues arise in considering the possibility that 'organizations' may develop specific views of the content of the psychological contract. Firstly, identifying the 'organization' is a complex undertaking (example Marks, 2001; Morrison & Robinson, 1997; Rousseau & Tijoriwala, 1998). Secondly, it follows that determining the organization's perspective would inherit similar complexity, for as Arnold (1996) correctly pointed out, the question then arises as to exactly who constitutes the 'organization' as the other party to the psychological work contract. Yan, Zhu, and Hall (2002) also faced this dilemma and cautioned that care needs to be exercised in defining what 'organization' stands for.

Our proposition is that more will be understood about the consequences of violation of the contract if the contract itself is understood from an employee perspective. Central to this discussion is acceptance that for any contract to exist there must be at least two parties to it and, whilst mutuality does permeate, it is the employee alone who provides this mutuality. The employee adopts two perspectives; what they expect of the organization (inducements) and what they believe the organization expects of them (contributions) (Turnley, Bolino, Lester, & Bloodgood, 2003). These are the two views that influence an employee's behavior to both be committed and exhibit organizational citizenship behavior (behaviors outside formal job requirements but helpful to the organization) or remain uncommitted and engage in counter productive work behaviors. Both have its consequences on organization's functioning.

It is this perspective, that is, the employees' perceptions of the mutual obligations that exist between themselves and the organization that confirms that mutuality in the psychological contract is provided by the employee alone. Additionally, as Morrison and Robinson (1997) stated, by definition, psychological contracts are in the minds of employees. They are also unwritten (Van Buren, 2000), and as suggested by Rousseau and Tijoriwala (1998) a psychological contract by definition is an individual perception.

CONCLUSION

Psychological Contract was in this paper perceived and defined as the set of expectations held by an employee concerning what he or she will contribute to the organization (referred to as contributions) and what the organization will provide to the employee in return (referred to as inducements). The contribution from the individual comprises many things like efforts, ability, loyalty, skills, time, competencies etc. and on the inducement list are pay, job security, benefits, career opportunities, status, advancement etc. a fulfillment of these conditions has the tendency of boosting employment relationship to the extent that both parties will be happy with each other.

However, an unfulfilled psychological contract is a slow killer of organizational processes. On the part of the employee, it has the tendencies of causing job dissatisfaction; acted out in absenteeism, lack of commitment and lateness to work. On the other hand a perceived fulfilled psychological contract breeds a

smooth working relationship between employees and employers; holding other factors constant. Psychological contract is either of a transactional nature (involving shorter time horizon and stressing financial inducement) or relational (stresses non financial issues); each of these is sine qua non in the pursuit of healthy employer/ employee relationship.

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A STUDY ON DEALERS, DISTRIBUTORS, AND ENGINEERS PERCEPTION TOWARDS PIPE INDUSTRY IN NORTH GUJARAT WITH SPECIAL REFERENCE OF ASTRAL POLY TECHNIK LTD.

KALPESH B. PRAJAPATI
ASST. PROFESSOR
S. V. INSTITUTE OF MANAGEMENT
KADI

MAHESH K. PATEL
HEAD
DEPARTMENT OF B.B.A.
N. P. COLLEGE OF COMPUTER STUDIES & MANAGEMENT
KADI

ABSTRACT

The main objective of the research paper is to find out the dealer perception towards pipe industry with special reference of Astral Poly Technik Ltd. Data is collected from the dealer, Distributors, Engineers & architects belief, preferences, knowledge and satisfaction by the product selling of Astral poly Technik Ltd. Data is collected from 196 respondent. Non probability sampling selected for this research papers. (Convenience sampling) In short here survey method is questioner to gathering information from the market of dealer, Distributors, Engineers & architects influencing to Astral products. The current research contributes to the marketers, to know the perception level of Dealers, Distributors, and Engineers towards Pipe industry.

KEYWORDS

Perception, Belief, Knowledge, Satisfaction.

INTRODUCTION

The Indian plastics industry progress has been made and the industry has grown and diversified rapidly. Currently, the industry Growth is Steady in Exports. Plastic industry is growing rate of 9% India. From the study we came to know that awareness of the Astral pipe is more in the mind of dealer, sub dealer and engineers. Company has very strong awareness in the market because of advertising through T.V advertising and also outdoor media and also by print media. Here the study focuses on perception of Dealers, Distributors, and Engineers relatively other companies pipes products.

LITERATURE REVIEW

International Journal of Multidisciplinary Research Vol.1 Issue 7, November 2011, since independence, plastic industries in India have been playing a predominant role in shaping our lives. As it an indispensable item in our day to day activity, so its importance cannot be undermined. Since last decade with the advent of new and improved technologies, the industry has gained greater importance with the production of better and improved quality of polymers (plastics) which has supported the radical change in human life and its day to day activities. The name "plastic" has been coined from "plastikos" - a Greek word meaning capable of being shaped or molded. The material is formed by repeating units of monomers forming long chains consisting of large molecules and characterized by light weight, high corrosion resistance and low melting points. Presently, there exist about 50 different types of plastics. Broadly plastics can be classified into two types namely (a) Thermosetting (can be softened or molded into a particular shape by applying heat and pressure only once) and (b) Thermoplastic. (can be softened repeatedly by application of heat and pressure).

These seven types of plastics are:- POLYETHYLENE TEREPHTHALATE (PETE):- PETE is one the most recycled plastic. It finds usage in various bottles like that of soda and cooking oil, etc. HIGH DENSITY POLYETHYLENE (HDPE):- HDPE is generally used in detergent bottles and in milk jugs. POLYVINYL CHLORIDE (PVC):- PVC is commonly used in plastic pipes, furniture, water bottles, liquid detergent jars etc. LOW DENSITY POLYETHYLENE (LDPE):- LDPE finds its usage in dry cleaning bags, food storage containers etc. POLYPROPYLENE (PP):- PP is commonly used in bottle caps and drinking straws. POLYSTYRENE (PS):- PS is used in cups, plastic tableware etc. Thus it is evident from the above classification and wide usage domain the vast role played by plastic in shaping the day to day human life. So here an honest effort has been made to gain some insights of this growing industry in India with the help of Michael Porter's Five Forces Model & Value Net Analysis.

IMPORTANCE OF THE STUDY

Scope of the research is to determine the market potential of astral poly Technik Ltd. The study is very important for marketer, to know how Dealers, Distributors, And Engineers Perception towards Pipe industry affect the market share of companies.

STATEMENT OF THE PROBLEM

After doing rigorous literature review, it is found that there are many studies which have been done on other industry but no research has been done on pipe industry in India. Research done on five force analysis and Value Net Analysis but no research has been done on Dealers, Distributors, and Engineers Perception towards Pipe industry in North Gujarat with special reference of Astral Poly Technik Ltd.

AIM AND OBJECTIVE

The main objective of the study is to identify dealers, distributors, and engineers perception towards pipe industry in north Gujarat with special reference of astral poly technik ltd. To find out awareness of astral pipes products. To find out awareness of astral pipes and comparison with other pipe product available in the market

RESEARCH METHODOLOGY

For conducting marketing research by way of surveying Dealers, Distributors, and Engineers, we have used a Descriptive Research Design. In the following research the procedure which is adopted is quantitative approach. Data is collected from the 197 respondents. Source of **Collection** is Questionnaire Method and Questions are close ended.

RESULT AND DISCUSSION

1. Name awareness of pipe & fittings Companies: (Prince, Supreme, Ashirvad, Ajay, Finolex, Jain Irrigation, Duke, Dutron, Watarflow)

Study found that all of brand awareness into market 100% accepts jain irrigation & water flow brand.

2. Biggest pipe & fittings companies in India:

According to study the Astral Pipe & fittings products is biggest pipes company so it is most preferred by the respondents, than after Finolex And Ashirvad are considered.

3. Which pipe company dealerships do you have?

From the study we can interpreted that highest 24% respondents have a dealership of ASTRAL Pipes. While 23% respondents have a dealership of an Ashirvad & 22% respondents have a dealership of a Finolex.

4. Which are the most preferred pipe & fittings brands which customers' demands?

Astral Pipe & fittings is most preferred by the respondents, than after Ashirvad and Finolex are considered.

5. What are the reason for selecting particular pipe & fittings brand?

Main reason for selecting the particular pipe brand is Quality of the product and other reason is brand images of the company. Than after Dealer is pushing for Company and Suggesting by Dealer are also impacted for selecting a brands.

6. Are you suggesting some product to the customers?

From the study we find that all dealers, distributors, and engineers are suggesting product to his costumers.

If yes, then which pipe and fittings do you suggesting the customer?

Most of the dealers, distributors, and engineers are suggesting products of astral pipes to the customers. Than dealers, distributors, and engineers are suggesting Ashirvad and Finolex.

7. If you are choosing pipe & fittings by yourself than what are the reasons?

We interpreted that according 1st rank to the respondents the main reason for selecting the particular pipe brand is of the Quality & brand name of the product. And also respondent give 2nd rank to the relation with the sales person of the company.

8. Are you satisfied or dissatisfied with astral pipe products & fittings?

From the study we interpreted that after the use of astral pipes most of the respondents are satisfied with astral pipes while 2% of the respondents are not satisfied with astral pipes.

If you are dissatisfied with astral pipes products & fittings than give the reason?

Main reason is past bed experience of the product and other complains regarding pipes of astral.

9. From where do you purchase astral pipe products & fittings?

Most of the respondents are purchasing pipes & fittings products from dealer while only 3% of the respondents purchase from the Company.

STATISTICAL ANALYSIS

CHI-SQUARE TESTS

From where do you purchase astral pipe products & fittings?

For Authorization

HYPOTHESIS

1) Null hypothesis: H0: There is Dissatisfaction between Dealers, Sub dealer, Distributors.

2) Alternative hypothesis: H1: There is satisfaction between Dealers, Sub dealer, Distributors.

CASE PROCESSING SUMMARY						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
	Authorization * Q14	197	54.7%	163	45.3%	360

AUTHORIZATION * Q-14 CROSS TABULATION					
Count					
		Q14			Total
		From Company	From Distributors	From Dealer	
Authorization	Distributors	6	0	0	6
	Dealer	0	63	0	63
	Sub Dealer	0	0	68	68
	Engineer	0	0	60	60
Total		6	63	128	197

CHI-SQUARE TESTS			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	394.000 ^a	6	.000
Likelihood Ratio	295.926	6	.000
Linear-by-Linear Association	152.703	1	.000
N of Valid Cases	197		
a. 6 cells (50.0%) have expected count less than 5. The minimum expected count is .18.			

SYMMETRIC MEASURES					
		Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.
Interval by Interval	Pearson's R	.883	.012	26.225	.000 ^c
Ordinal by Ordinal	Spearman Correlation	.879	.021	25.679	.000 ^c
N of Valid Cases		197			
a. Not assuming the null hypothesis.					
b. Using the asymptotic standard error assuming the null hypothesis.					
c. Based on normal approximation.					

INTERPRETATION

From the above table it is clear; significance level 0.000 is less than 0.05 significance level. So, Alternative hypothesis is accepted and null hypothesis is rejected. So, there is Satisfaction level for dealer, sub dealer and distributors and engineers.

What is your annual pipe requirement? (Yearly IN INR)

For Authorization

CASE PROCESSING SUMMARY						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Authorization * Q15	197	54.7%	163	45.3%	360	100.0%

AUTHORIZATION * Q15 CROSS TABULATION							
Count							
		Q15					Total
		0 - 5 Lakhs	5 - 10 Lakhs	10 -15 Lakhs	15 - 20 Lakhs	20 & Above	
Authorization	Distributors	6	0	0	0	0	6
	Dealer	54	9	0	0	0	63
	Sub Dealer	0	67	1	0	0	68
	Engineer	0	0	48	4	8	60
Total		60	76	49	4	8	197

CHI-SQUARE TESTS			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	342.964 ^a	12	.000
Likelihood Ratio	368.806	12	.000
Linear-by-Linear Association	150.311	1	.000
N of Valid Cases	197		
a. 11 cells (55.0%) have expected count less than 5. The minimum expected count is .12.			

SYMMETRIC MEASURES				
	Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.
Interval by Interval Pearson's R	.876	.014	25.328	.000 ^c
Ordinal by Ordinal Spearman Correlation	.953	.010	43.678	.000 ^c
N of Valid Cases	197			
a. Not assuming the null hypothesis.				
b. Using the asymptotic standard error assuming the null hypothesis.				
c. Based on normal approximation.				

From where do you purchase astral pipe products & fittings?

Work Experience

CASE PROCESSING SUMMARY						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
W.E * Q14	197	54.7%	163	45.3%	360	100.0%

W.E * Q14 CROSSTABULATION					
Count					
		Q14			Total
		From Company	From Distributors	From Dealer	
W.E	Below 5	6	14	0	20
	5 - 10	0	40	0	40
	10 - 15	0	9	61	70
	15 - 20	0	0	34	34
	20 & Above	0	0	33	33
Total		6	63	128	197

CHI-SQUARE TESTS			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	206.372 ^a	8	.000
Likelihood Ratio	217.779	8	.000
Linear-by-Linear Association	119.746	1	.000
N of Valid Cases	197		
a. 5 cells (33.3%) have expected count less than 5. The minimum expected count is .61.			

SYMMETRIC MEASURES				
	Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.
Interval by Interval Pearson's R	.782	.019	17.499	.000 ^c
Ordinal by Ordinal Spearman Correlation	.807	.023	19.053	.000 ^c
N of Valid Cases	197			
a. Not assuming the null hypothesis.				
b. Using the asymptotic standard error assuming the null hypothesis.				

Are you satisfied or dissatisfied with astral pipe products?

For Work Experience

CROSSTAB			
Count			
		Q13	
		Dissatisfied	Satisfied
W.E	Below 5	3	17
	5 – 10	0	40
	10 – 15	0	70
	15 – 20	0	34
	20 & Above	0	33
Total		3	194
		194	197

CHI-SQUARE TESTS			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	26.961 ^a	4	.000
Likelihood Ratio	14.153	4	.007
Linear-by-Linear Association	9.286	1	.002
N of Valid Cases	197		

a. 5 cells (50.0%) have expected count less than 5. The minimum expected count is .30.

SYMMETRIC MEASURES				
		Value	Asymp. Std. Error ^a	Approx. T ^b
Interval by Interval	Pearson's R	.218	.060	3.114
Ordinal by Ordinal	Spearman Correlation	.200	.056	2.851
N of Valid Cases		197		

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.
c. Based on normal approximation.

Interpretation

From the above table it is clear; significance level 0.07 is more than 0.05 significance level. So, null hypothesis is accepted and alternative hypothesis is rejected. so there is no assumption between work experience and satisfaction and dissatisfaction of the dealer distributors etc.

DESCRIPTIVE STATISTICS ANALYSIS

Ho: There is no significance impact of all type of age group on costly services.

H1: There is significance impact of all type of age group on costly services.

DESCRIPTIVE STATISTICS							
	N	Minimum	Mean	Std. Deviation	Variance	Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
Authorization	197	1	2.92	.863	.744	-1.065	.345
Q10	197	1	1.00	.000	.000	.	.
W.E	197	1	3.10	1.204	1.449	-.791	.345
Q6	197	1	1.00	.000	.000	.	.
Q12	197	1	1.00	.000	.000	.	.
Q13	197	0	.98	.123	.015	62.282	.345
Q14	197	1	3.27	1.012	1.024	-1.246	.345
Q15	197	1	2.11	.997	.994	.860	.345
Valid N (listwise)	197						

Interpretation

Here the significance ($p < \alpha$) was more than 0.05. Therefore we do not reject null hypothesis (H_0). It means that the null hypothesis is true. There is no significance impact of all type of age group on costly services.

T-Test

For Authorization

ONE-SAMPLE STATISTICS				
	N	Mean	Std. Deviation	Std. Error Mean
Authorization	197	2.92	.863	.061

ONE-SAMPLE TEST						
	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Authorization	47.572	196	.000	2.924	2.80	3.05

Interpretation

Here the significance ($p < \alpha$) was more than 0.05. Therefore we do not reject null hypothesis (H_0). It means that the null hypothesis is true.

T-TEST: FOR WORK EXPERIENCE

ONE-SAMPLE STATISTICS				
	N	Mean	Std. Deviation	Std. Error Mean
W.E	197	3.10	1.204	.086

ONE-SAMPLE TEST					
Test Value = 0					
T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
				Lower	Upper
W.E	36.166	196.000	3.102	2.93	3.27

Interpretation

Here the significance ($p < \alpha$) was more than 0.05. Therefore we do not reject null hypothesis (H_0). It means that the null hypothesis is true.

FINDINGS

- ❖ From the research we found that most of north Gujarat region dealers are selling the products of pipe & fitting and also with products of pipe & fitting dealers are selling the tiles & ceramics products.
- ❖ All respondent were using pipe & fittings product.
- ❖ Nearly 98% of the respondents are highly satisfied with the astral poly Technik Ltd company remain 2% are not satisfied with the company because of past bad experience and complain regarding pipe.
- ❖ 21% respondents are known about Astral Pipes through print media, 18% respondents are known about astral pipes through television 34% through Outdoor media. The company has very strong awareness in the market. The company has very strong advertising through T.V advertising and also outdoor media and by print media.
- ❖ The company has very strong network of dealer and sub dealer at north Gujarat region.
- ❖ From the research we find that most of respondents give first rank to Astral pipes and next to Finolex.
- ❖ From the research we find that most that most of respondents are sell astral pipe and fittings and next sell Ashirvad and Finolex pipes & fittings product.
- ❖ 24.16% respondent has astral pipe dealership 23.76% has Ashirvad pipe & fittings dealership and also 22.77% has Finolex dealership and 11.88% respondent has Ajay pipe & fittings company dealership.
- ❖ From research we find that 53.30% people are known or aware about astral pipe by Advertising and 46.19% respondent know from by sales person.
- ❖ Astral pipe and fittings product and also Finolex into the market both brands are enjoying good market share in north Gujarat region because of high demand.
- ❖ Reasons for selecting particular brand are quality of the product, brand image of the company and dealer is pushing for the company's product.
- ❖ Point of purchase more from dealer is, and then from distributors.

CONCLUSIONS

It is concluded that product of Astral poly Technik Ltd. is one of the best qualitative products at a average price of competitors so that it beneficial to customer and society both. Now a day's company's position is strong found by the research because of advertisement and qualitative product. But also the company has required increasing promotional schemes, dealer margin, Engineers, dealer and Sub dealer relationship in this area where actual selling is not continue.

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FOR COMING EFFECT OF IRAQ'S ACCESSION TO THE (WTO) IN THE MANAGING OF TAX & CUSTOMS REVENUES

HUSAM YASEEN MOHSIN

SUPERVISOR, WTO SECTION-FOREIGN ECONOMIC RELATIONS DEPARTMENT- MINISTRY OF TRADE OF IRAQ

RESEARCH SCHOLAR

SCHOOL OF MANAGEMENT

HUAZHONG UNIVERSITY OF SCIENCE & TECHNOLOGY

WUHAN, CHINA

KEZHONG ZHANG

PROFESSOR

DEPARTMENT OF PUBLIC FINANCE & MANAGEMENT

SCHOOL OF MANAGEMENT

HUAZHONG UNIVERSITY OF SCIENCE & TECHNOLOGY

WUHAN, CHINA

ABSTRACT

This paper focused on one of the important topics that used recently in almost all over the world, especially in developing countries and particularly Iraq, which is Iraq's accession to the world trade organization, and the impact of this accession on the management of tax revenue and customs, as well as the challenges face the process of accession, It dealt with the major elements of the study, which are the World Trade Organization and Iraq's march to join this organization, and Tax System in Iraq and its major component. In addition to the concept of Customs Policy and its means and the relationship between the customs evaluation rules with the world trade organization agreement. Have been identified the most important challenges, as well as a set of conclusions and recommendations.

KEYWORDS

World trade organization WTO, General Agreement on Tariffs and Trade GATT, Value added tax VAT.

INTRODUCTION

There is no doubt that the financial policy drawn by the overall direction of the State according to its vision, to achieve their goals, political, financial, social and economic, the tax is one of the most important tools used by the fiscal policy to achieve those goals, which reflect the political philosophy of the state, taxes of the most important sources of funding, approved by the financial systems in all countries of the world, to fund balances public, as well as for use as one of the important tools of fiscal policy in guiding the investment desired, and re-distribution of income and try to control the phenomena and the economic turmoil, they are used to guide the market to stabilize the situation, as well as use in the consolidation of economic relations at the regional level or on the international level, it is an important tool in the work of social and economic changes, commensurate with the overall objectives of the state.

In the current circumstances and the opening of Iraq to the outside world and fell into a regional and international conventions, especially to complete the file to join the world trade organization as a permanent member, while benefits provided by the accession to this organization, in entering the investment into the country, and the possibility of Iraq's entry into markets of other countries, but the laws the organization will patrol the important resources, represent a large proportion of income tax to the State, the revenue of customs, on the one hand, on the other hand, the reconstruction phase in Iraq, and caused the depletion of oil resources in the coming years, resources in the coming years, this requires alternative sources of oil, it is known that tax the most important of these alternatives, which requires the development of tax policy, and the creation of new taxes such as VAT and tax environment, and activation of other development such as sales taxes, taxes on consumption in general, to compensate the lost resources and depleted, consistent with the current circumstances.

THE WORLD TRADE ORGANIZATION & IRAQ

Over the more than four decades of its existence, the GATT system expanded to include many more countries. It evolved into a de facto world trade organization, but one that was increasingly fragmented as "side agreements" or codes were negotiated among subsets of countries. It's fairly complex and carefully crafted basic legal text was extended or modified by numerous supplementary provisions, special arrangements, interpretations, waivers, reports by dispute settlement panels, and council decisions.

Since 1947, the GATT has been the major focal point for industrial country governments seeking to lower trade barriers. Although the GATT was initially largely limited to a tariff agreement, over time, as average tariff levels fell, it increasingly came to concentrate on nontariff trade policies and domestic policies having an impact on trade.

Its success was reflected in a steady expansion in the number of contracting parties. By the end of the Uruguay Round (1994), 128 countries had joined the GATT.

There are many similarities between the GATT and the world trade organization, but the basic principles remain the same. The world trade organization continues to operate by consensus and to be member driven. There were, however, a number of major changes. Most obviously, the coverage of the world trade organization is much wider. A change of great importance is that in contrast to the GATT, the world trade organization agreement is a "single undertaking"—all its provisions apply to all members.

Under the GATT, there was great flexibility for countries to "opt out" of new disciplines, and in practice, many developing countries did not sign specific agreements on issues such as customs valuation or subsidies. This is no longer the case, implying that the world trade organization is much more important for developing countries than the GATT was. Also important were changes in the area of dispute settlement, which became much more "automatic" with the adoption of a "negative consensus" rule. (All members must oppose the findings in a dispute settlement to block adoption of reports.) Finally, the secretariat acquired much greater transparency and surveillance functions through the creation of the Trade Policy Review Mechanism.

The main function of the world trade organization is as a forum for international cooperation on trade-related policies—the creation of codes of conduct for member governments. These codes emerge from the exchange of trade policy commitments in periodic negotiations. The world trade organization can be seen as a market in the sense that countries come together to exchange market access commitments on a reciprocal basis.

Today World Trade Organization (WTO) is the only global international organization dealing with the rules of trade between nations. At its heart are the world trade organization agreements, negotiated and signed by the bulk of the world's trading nations and ratified in their parliaments. The goal is to help producers of goods and services, exporters, and importers conduct their business.

The world trade organization is an international organization dealing with the global rules of trade between nations. Its main function is to ensure that trade flows as smoothly, predictably and freely as possible. The goal is a more prosperous, peaceful and accountable economic world. At the heart of the world trade organization system — known as the multilateral trading system — is the organization's agreement, negotiated and signed by a large majority of the world's trading nations, and ratified in their parliaments. These agreements are the legal ground-rules for international commerce. Essentially, they are contracts, guaranteeing member countries important trade rights. They also bind governments to keep their trade policies within agreed limits to everybody's benefit. The agreements were negotiated and signed by governments. But their purpose is to help producers of goods and services, exporters, and importers conduct their business.

In early 2004, Iraq applied for world trade organization membership. It was granted the WTO Observer status in February 2004. A working party to examine Iraq's accession to the world trade organization was established on December 13, 2004. A Chairperson for Iraq's Working Party is expected to be selected early 2005. Ministry of Trade (MOT) Order No. 2265 dated June 7, 2004 established a world trade organization National Committee (NC) headed by the Minister of Trade to (i) review national laws and regulations for their compatibility and consistency with world trade organization agreements; and (ii) prepare the Memorandum on Foreign Trade Regime (MFTR) and accession documents for full membership as soon as possible. The world trade organization is an intergovernmental organization aimed at gradual liberalization through reducing tariff barriers and eliminating non-tariff barriers to international trade in goods, facilitating trade in services, protecting intellectual property rights, harmonizing trade rules, and strengthening the rule of law.

Currently, more than 90% of world trade in goods and services is conducted among world trade organization members. To remain isolated from the activities of the world trade organization and to trade under different rules and principles from those applied by world trade organization member countries are likely to have serious negative economic consequences on Iraq's economy. Iraq has a responsibility to actively and openly consult with the private sector and the citizenry of Iraq as part of their world trade organization Accession process.

The WTO's role is to provide the forum for negotiating liberalization. It also provides the rules for how liberalization can take place. The rules written into the agreements allow barriers to be lowered gradually so that domestic producers can adjust. They have special provisions that take into account the situations that developing countries face. They also spell out when and how governments can protect their domestic producers.

The basic requirements for the process of accession of world trade organization is the harmonization of the laws related to the economic and commercial life of the WTO agreements, which are positives. In such regard world trade organization has been developing a legislation plan, containing more than (35) paragraph (law, bill, Systems, and instructions) working in alignment with the world trade organization agreements. Including for example: the tariff law No. 22 of 2010, a bill of public health, food safety system: No. 4 of 2011, a bill quarantine, the draft of intellectual Property Law, Law on the Protection of Iraqi products and dumping prevention: No. 11 of 2010, the Consumer Protection Act No. 1 of 2010, and the Competition law and monopoly prevention No. 14 of 2010.

The Secretariat of the National Commission on Iraq's accession to the World Trade Organization has to spread awareness programs to all sectors in Iraq of the definition of the world trade organization and what the benefits and the cost of joining this organization are. The awareness could be spread through the establishment of conferences and workshops in all Iraqi cities. Meanwhile the solution should be found for the fears of extrapolation by these sectors and the growing concern of such development in Iraqi through negotiations, bilateral and multilateral in the framework of the World Trade Organization.

WHY ACCESS THE WORLD TRADE ORGANIZATION?

The trend of being put under the protective shelter of the World Trade Organization is growing leaving little to no rooms for option of the isolation from this community. Acceding countries are currently (159) as permanent member, and (28) country as observing member. Therefore, it is best to take advantage of this data and instructions for it only leaves room for major countries alone to take advantage of the provisions.

The biggest beneficiary of international trade agreements, which are joined early after the last forties and fifties of the centuries, it communities that have the potential of technological distinctive

Therefore, it is better to move communities such as Iraq is to join the pretext of benefit in order to support its technological capabilities and strong self- specific programs. The role of the government leaders should not be not dominant where the focus should be on the commercial private sectors for a better economic and trade exchanges in the near future.

Iraq is a country emerging after a series of wars and sanctions and isolation from the international market. It is in a dire need to stand on its feet for excellent technological productivity with low-cost, high-efficiency and qualified human resources (professional that compete with most neighboring countries, such as Lebanon, Jordan, Egypt, and Saudi Arabia finally). Henceforth the wait-and -see approach would increase the burden or costs to join the World Trade Organization. It should be noted that the various conventions in terms of the World Trade Organization do not mean for small countries to open wide markets.

Like allowing, the entry of goods and services or foreign investment in general without restrictions or conditions determined by the local rules and regulations in the State concerned. There are many exceptions to the rules of the organization, which are for the benefit of developing countries: such as tariff ceilings and continued support services production, marketing and exports, as well as anti-dumping, market access and intellectual property rights and other issues that member countries can negotiate to their advantage.

THE REALITY OF THE TAX SYSTEM IN IRAQ

Tax prominence in all financial systems in every country, is an effective tool used in the redistribution of income and wealth on one hand, and maintenance of the general level of prices, and financing the state budget on the other. The tax system in Iraq combines the advantage of direct taxes, levied on income and capital, and indirect taxes, such as taxes, customs, production taxes, and real estate registration fees and other.

The most important pillars of the tax system are the tax structure represented by the types of applicable taxes according to tax legislation this determines the amount of the tax burden for each type of tax contained. According to the Tax Foundation Iraqi (Figure (1) shows the types of taxes in Iraq).

1. Direct taxes (especially Income Tax) the criterion for determining taxable income, the resident and non-resident, is consistent with the standard of national treatment in the WTO agreements. It treats income derived in Iraq for the resident and non-resident alike. This applies as well to the proportion of corporate profits of different types; it is subject to one tax, namely, (15%).

2. Indirect taxes, A. the custom tax: Although the contemporary trends of trade liberalization, and Iraq's desire to transition from a planned to a market economy and to join the World Trade Organization (which sponsors the subject of trade liberalization, and the reduction of customs duties, and the issuance of the customs tariff law No. (22) for the year 2010, (Figure (2) I worked classification to custom tariff bound in this law), is compatible with the principles of this organization, it is expected to increase the revenue of customs in the coming years if the application of this law, because of the high tariff rate for the (5%) charged by Iraq.

B. the production tax: this tax has been suspended. Collected since 2008, its index is negative and possesses a new challenge in front of trends to liberalize trade and open the doors to foreign direct investment within the framework of the world trade organization agreements. It would upset the balance desired in commercial transactions, for example, consumer's desire to buy from the Iraqi state company for the automotive industry. is more than the general company's desire to trade cars. Although the first is manufactured in Iraq and the latter in the country of origin. It is due to the low prices of the general company for the automotive industry that their prices do not include tax.

FIGURE 1: THE TAX STRUCTURE IN IRAQ

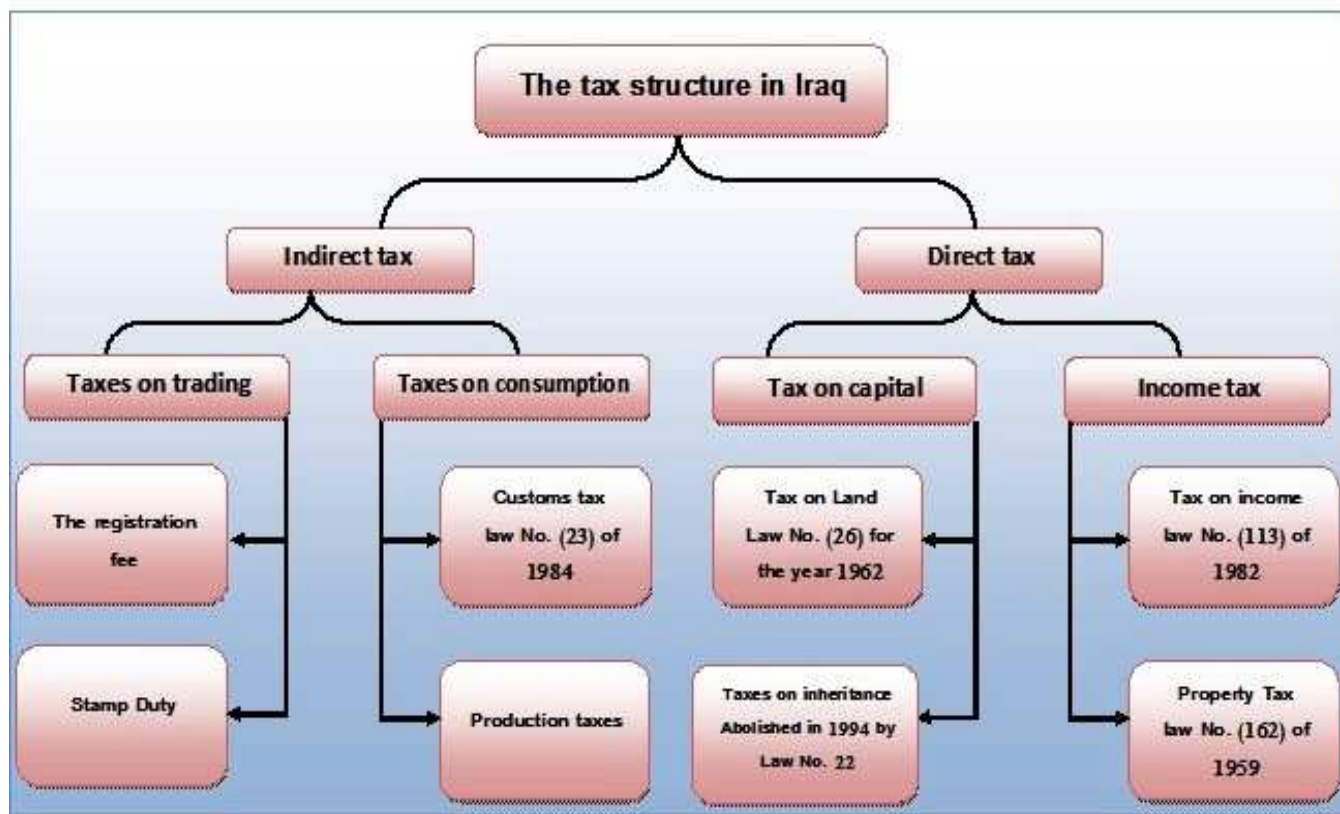
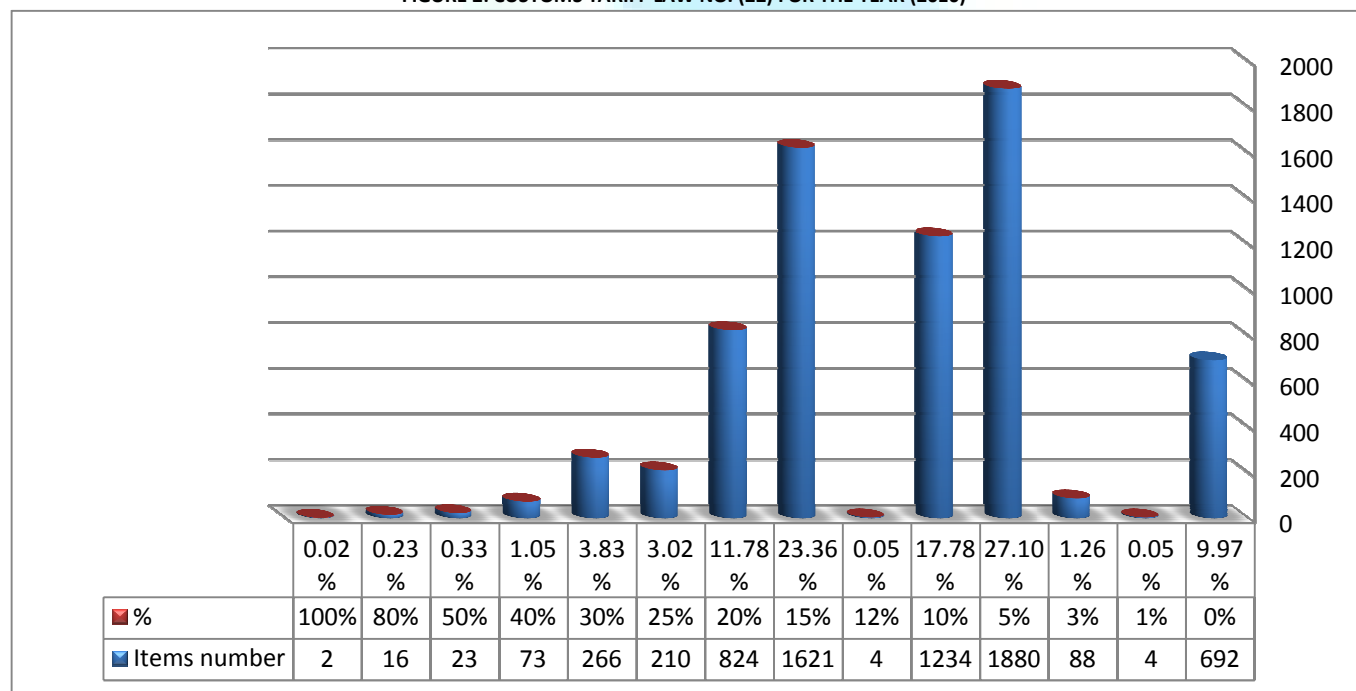


FIGURE 2: CUSTOMS TARIFF LAW NO. (22) FOR THE YEAR (2010)

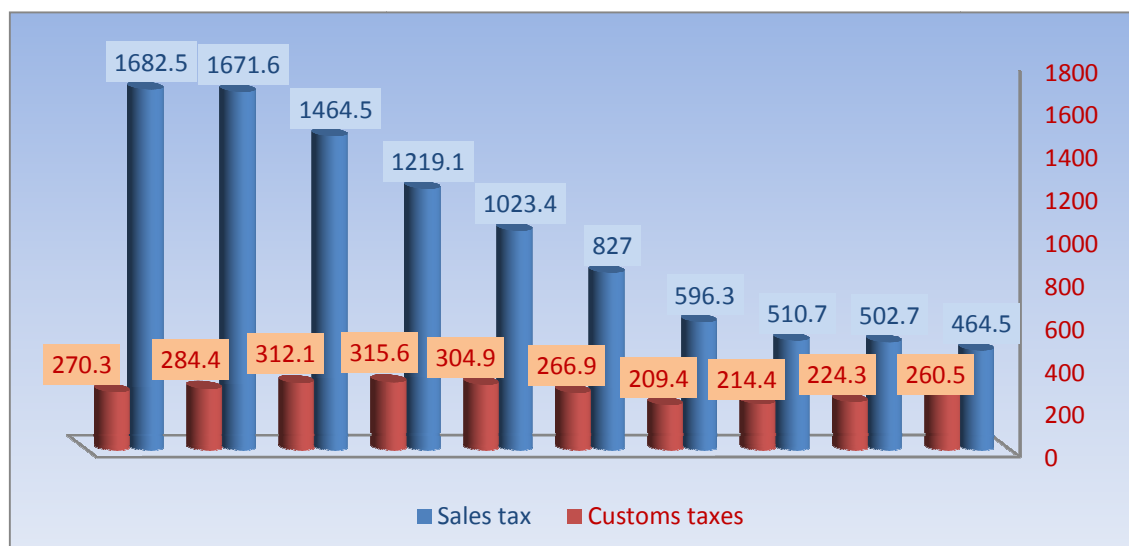


C. the sale tax "Impose sales (10%) on the value of all services provided by the hotels and restaurants (excellent and first class)". The sales tax in Iraq currently cannot compensate for tax revenue that will be lost after Iraq joins the World Trade Organization. Unless the sales tax law is re-examined and ensures formulas imposed on the final stage of consumption goods, which lead to maximizing revenues.

Iraq can benefit from the experiences of Jordan and Lebanon. According to the Ministry of Finance of Jordan Figure (3) shows the evolution of tax revenue (sales and customs) in Jordan. It also shows the gradual reduction of customs taxes and its impact on customs revenue at the same time. The impact of the change in sales tax revenue as a result of the amendments in the Sales tax Act is also evident. Although Jordan compensated for the shortfall in tax revenue customs by increasing the sales tax revenue the growth rate exceeds the growth rate of customs revenue. It also achieved the liberalization of trade according to the agreements of the World Trade Organization.

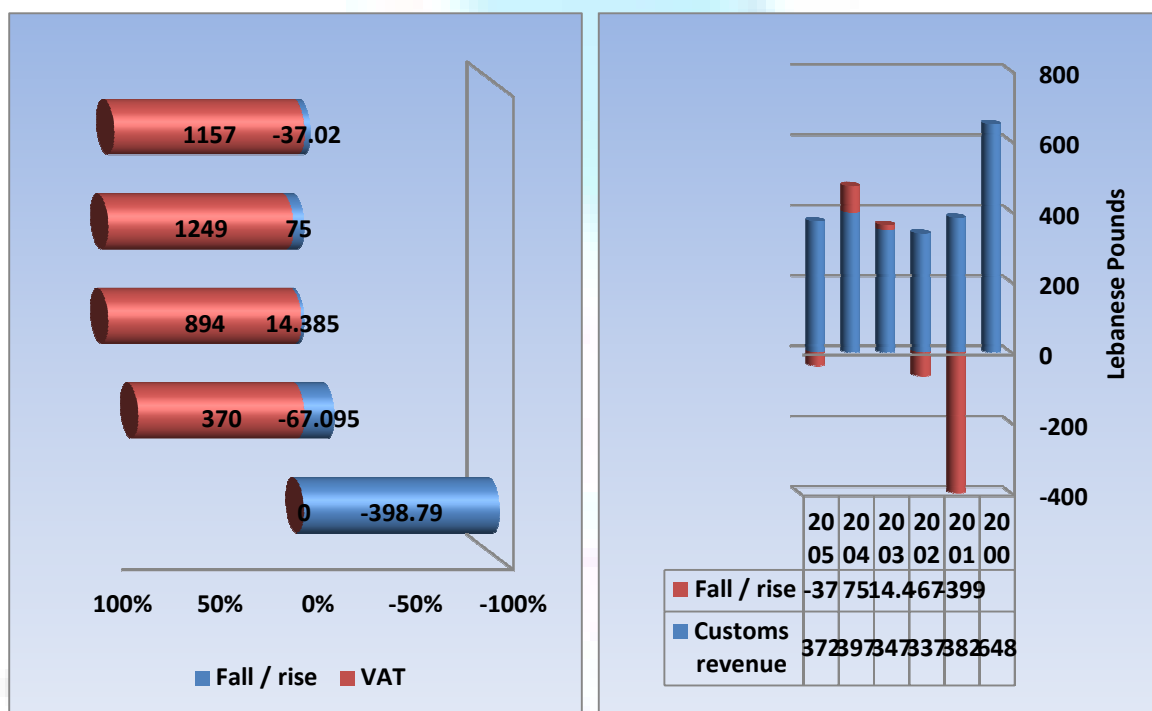
As for Lebanon, it issued a decree to amend the Customs Law of Lebanese customs and tariff reduction to commensurate with the requirements of the World Trade Organization. In the same year, the VAT rate (10%) was issued to compensate for the decline in customs revenue. According to the Ministry of Finance of Lebanon Figure (4) shows the coverage of the VAT and the low quotient of customs revenue.

FIGURE 3: SHOWS THE EVOLUTION OF TAX REVENUE (SALES AND CUSTOMS) IN JORDON.



2009	2008	2007	2006	2005	2004	2003	2002	2001	year/Growth Rate%
0.652	14.141	20.297	19.123	23.748	38.689	16.761	1.591	8.224	Sales Tax
-4.958	-8.875	-1.109	3.509	14.238	27.459	-2.332	-4.414	-13.896	Customs Tax

FIGURE 4: THE COVERAGE OF THE VAT THE LOW QUOTIENT OF CUSTOMS REVENUE



The tax foundation in Iraq prepared a strategic plan for the next three years, and putting this plan hierarchically represents what is known as the peak (the mission statement). It is a general framework including a summary of the objectives. Its most important goals are to create a unit to deal with large taxpayers, and work on the implementation of the method of self-esteem. The reason being because the tax foundation at the present time does not have the capacity to deal with the giant companies (oil companies that contracted with the state recently). This is because of the difference with the evolution regulations and accounting standards used by these companies compared to the regulations and criteria used by the tax foundation in Iraq.

In this regard, the Tax Foundation Iraq has plans to develop cadre systems to keep pace with international accounting in order to have the ability to deal with such companies. The tax foundation also intends to create a partition for senior taxpayers to deal with such giants.

It must also be pointed out that the current sales tax imposed for specific purposes (reflecting the country is headed in a timely manner, without reflecting the orientations of the tax administration), and the tax administration's long-term strategy for the enactment of the sales tax in its true sense (a tax on consumption) and access to value-added tax.

CHALLENGES

1. The bad security conditions that prevailed in Iraq and still sparks, has closed the door to foreign investment and evacuated the balance of commercial transactions. As observed on taxes fluctuation, between high and low from year to year. This was due to the security situation experienced by the country in the past years that led to disable many of these revenues.

2. Iraq suffers from a non-tender legislature; the state is unable to enact legislation that complies with directions, and judicial institutions. It does not have the ability to apply and interpret such new legislation in the courtyard of the Iraqi judiciary.

3. Prevention of world trade organization rules by a recourse to the quota quantity. Using the ban as a way to protect the domestic industry, and working to restrict the freedom of the state to resort to preventing the entry of certain goods or export subsidies. While there are no preventive measures for anti-dumping and protection of domestic industries, especially in light of some of the taxes to stop the ineffectiveness of the other.

4. If we compare the experience of Jordan with the reality of taxes and customs sales tax in Iraq, the sales tax in Iraq in its present state cannot compensate for tax revenue customs. Unless they re-examine the law of the sales tax, in a way that secures the impose on the final stage of consumption goods, which leads to maximize revenues.

5. The world trade organization may make some exceptions to the rules of a particular country. These exceptions should be obtained by the negotiating team. The more experienced and familiar with the rules the negotiating team is, the better results are gained. The Iraqi negotiating team comprises senior officials from various Iraqi ministries. Yet the existence of the political quota system that prevailed in the state, and the changes in positions of senior officials (special grades), will lead to instability in the Iraqi negotiating team. In addition, these quotas may be filled with average people not specialists in the membership of the negotiating team.

The biggest question remains, must Iraq's accession process continue, by saying that it is inevitable not a stud, or will it take advantage of all the pluses, to pay the productive sectors and the Iraqi economy towards prosperity and growth?

This paper shows clearly that there is no negative repercussions recalled in the financial terms, but, socially, is another question. Will Iraq be ready in all levels when accession is approved on?

After what has been detailed, the fore coming effect of Iraq's accession to the world trade organization in the management of tax revenue and customs revenues, shows what the world trade organization and the implications of Iraq's accession to this organization in Iraq's economic future, particularly its impact on the tax system and customs policy, as well as the major challenges that may be faced by Iraq of the process of accession to the world trade organization, will have?

CONCLUSIONS

1. The requirements of the Foreign Trade and the World Trade Organization necessitate the reduction of customs taxes, which requires the imposition of a tax on consumption, especially value-added tax. Taking into account the social dimension as much as possible, as evidenced by the experiences of most countries in the world in this field.

2. The files that have been submitted in the instrument of accession do not reflect the real situation of the Iraqi economy, nor its foreign policy. The contents of this document reflect the reality of the Iraqi economy before 2003, and was presented to the political desire at the time to open up to the outside world, especially as it had received support and great pressure from powerful countries in the direction of engaging in the World Trade Organization.

3. Despite the orientations of the state to open up to the outside world, in particular the organization, which holds the global economy in various aspects of finance, monetary and trade, (such as the International Monetary Fund, the International Bank for Reconstruction and Development, the World Trade Organization,) the tax legislation is not consistent with these new trends.

4. Although orientations of the tax administration in Iraq to the use of international standards in the process of settling accounts tax (such as the use of self-esteem, and settling accounts through the mail, open unit for senior taxpayers), the tax system settling accounts in Iraq up to now is not qualified to deal with large companies (Especially oil companies). This is due to the lack of staff compared to the size of the accounts of such companies, and the lack of legislation that paves the way for orientations of the tax administration, especially with regard to electronic signatures.

5. Still the tax system in Iraq is far from the application of VAT, which is one of the most important financial instruments in the modern economy, and applied in most countries of the world. The application requires modifications, in including income tax rates, and reducing some of the slides, and revisiting some exemptions to achieve tax justice when applied.

RECOMMENDATIONS

1. Revision of tax laws especially the laws of consumption taxes, and the most important sales tax, to serve as a prelude to the value-added tax. Iraq needs such a tax to cope with external changes, especially concerning trade liberalization, and the process of Iraq's accession to the World Trade Organization.

2. The process of Iraq's accession to the world trade organization at the present time constitutes the confused industries of Iraq. Therefore, it has to be a cushion for a period outside the conventions of this organization. To obtain exemptions from agreements that enable Iraq to achieve development, and then move to a market economy in order to avoid the negative repercussions that may hit the productive sectors of Iraq.

3. A Committee to be made for the national instrument of accession, which included arthritis president of the Iraqi economy now, and work through its sub-committees on significant changes in the jointing of the Iraqi economy, to align them with the world trade organization agreements. But it need not work on the transfer of international experiences of economic development, to the reconstruction and development of the Iraqi economy before proceeding to access world trade organization agreements.

4. Take advantage of the situation in Iraq as an observer in the World Trade Organization, to see the experiences of countries in the multilateral negotiations, and determine the alliances that can commensurate with the economic situation in Iraq.

5. Benefit from the experiences of countries in this area, especially from those that benefited from world trade organization agreements and exceptions. Particularly countries that transitioned from customs tax to the sales tax or value-added tax and in particular the experience of the states such as Jordan and Lebanon.

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UNDERSTANDING THROUGH LITERATURE REVIEW THE BEHAVIOURS ASSOCIATED WITH SAFE DRIVING ON THE ROADS

RICHARD VINCENT D'SOUZA
RESEARCH SCHOLAR

CANARA BANK SCHOOL OF MANAGEMENT STUDIES
BANGALORE UNIVERSITY
BANGALORE

K JANARDHANAM
PROFESSOR

CANARA BANK SCHOOL OF MANAGEMENT STUDIES
BANGALORE UNIVERSITY
BANGALORE

ABSTRACT

Since ancient times there has been agreement among thinkers that human capacities are organized into three distinct groups corresponding to the three fold human nature: the will (attitude), the understanding (knowledge and skill), and the actions of an individual (behaviour). Human behaviour of the road users particularly the behaviour of drivers play an important role in safe driving practices by preventing road accidents. A driver for the purpose of this study is defined as a person who drives a motorised vehicle like moped, scooter, motor cycle, auto rickshaw, car, van, bus or truck on the public road. Apart from driver behaviour the behaviour of other road users like pedestrians and cart pullers, can also play a role in the safety of road travel. Road accident is most unwanted thing to happen to a road user, though they happen quite often. The most unfortunate thing is that we don't learn from our mistakes on road. Most of the road users are quite well aware of the general rules and safety measures while using roads but it is only the laxity on their part which cause accidents and crashes. Road crashes are manmade and preventable if road users are inculcated with right kind of knowledge, skills and attitude to promote safety.

KEYWORDS

Aggressive action, Driver behaviour, Safe driving, Road user.

INTRODUCTION

Travel by road in India is very popular for various reasons, but the safety climate is needed to be improved. The rate of road-accidents and fatality in the country is very high. Pressure on roads has been on increase and the number of vehicles is increasing by leaps and bounds. Lack of road-sense has further complicated the matters. Road transportation is the backbone of our nation and transport services are considered as growth engine of the economy. It is said that more the lengths of roads, more the prosperity of the nation. The prosperity brigades of a nation normally comprise of intelligentsia, hard labour, infrastructure availability and lastly smooth functioning of its roads. However, transportation network if not used properly may cause pollution and accidents. As per data registered by the World Health organization, (WHO 2004) nearly 12 lakhs people are known to die globally each year in road accidents. Out of which more than 83,000 people are killed and about 400000 people are seriously injured in India. It means, we kill about 230 people and injure about 1100 every day on Indian roads. Out of this, about 25-30% is pedestrians and 15-20% children under 15 years of age. In India, the total cost of losses due to road accidents are in the range of Rs. 400- 500 crores a day (Desai, 2011). The estimated cost includes compensation, asset loss, time and energy spent on police, hospital and court cases etc. But it is difficult to measure these sufferings in terms of money. The loss to the nation due to road accidents is untold, eating into the economics of the nation.

Road accident is most unwanted thing to happen to a road user, though they happen quite often. The most unfortunate thing is that we don't learn from our mistakes on road. Most of the road users are quite well aware of the general rules and safety measures while using roads but it is only the laxity on their part which causes accidents and crashes. Main cause of accidents and crashes are due to human errors. Some of the common errors of people which results in accident are: (1) over speeding; (2) drunken driving; (3) distractions to driver; (4) red light jumping; (5) not using safety gears like seat belts and helmets (6) non-adherence to lane driving and (7) overtaking in a wrong manner.

Road safety in India has become a major concern for the regulatory authorities. Indian road safety situation is many times worse when compared to the developed countries of the world, which leaves much to be done in the field of Road Safety Management. "Accidents are not natural but they are caused," is a common saying in the area of traffic safety. Road safety is defined as the absence of crashes, injuries and fatalities. The term "safety" implies that there are no occurrences of accidents. Although undesirable, crashes and fatalities are inevitable incidents of the transportation system. The road transportation is cursed with road accidents. A substantial accident risk is always present in the development of transport facilities. Road crashes are a growing problem worldwide. The road systems all over the world are getting more and more congested and unsafe day by day. Road Traffic Accident (RTA) is normally defined as "accident which takes place on the road between two or more objects, one of which must be any kind of a moving vehicle." Road traffic accidents can be called as perennial disaster, as they have claimed far more lives than any of the natural disasters.

THE ROLE OF ROAD USER BEHAVIOURS

Human behaviour of the road users particularly the behaviour of drivers play an important role in safe driving by preventing road accidents. A driver for the purpose of this study is defined as a person who drives a motorised vehicle like moped, scooter, motor cycle, auto rickshaw, car, van, bus or truck on the public road. Apart from driver behaviour the behaviour of other road users like pedestrians and cart pullers, can also play a role in the safety of road travel. It is commonly acknowledged that human factors may contribute to accident involvement in traffic (Grayson and Maycock, 1988). Based on a study of 2041 traffic accidents, Sabey and Taylor (1980) concluded that human factors were contributing elements in 95% of the accidents. In particular, driving behaviour was identified as the most central of these factors. Consequently, a variety of studies have been carried out in order to identify variables which may influence accident involvement and risk-taking behaviour in traffic, meaning behaviour that indicate the possibility of a negative outcome for the individual as well as for others.

Accidents on the roads are also called as road crashes. Hence both these terms in this study conveys the same meaning. Road crash is an event on the public road, caused by the behaviour of road users, which results in damage to the vehicle and injury or death to the road users. Road crashes can be divided as single party crashes and multi party crashes. Single party crash is a road accident in which the driver does not hit the vehicle to another vehicle or to another person. Rather he may hit the median, drain, kerb, tree or any other physical object thereby causing death or injury to himself or to his passengers or both apart from damage to the vehicle. In multi party crashes the driver hits his vehicle to a person or to another vehicle. In multi party crashes the party responsible for the

accident is the culprit whether he himself is also injured or died and the other people who suffer damage to vehicle, injury or death are victims. It is not always the driver only at risk in a road crash rather the lives of passengers in the crash vehicle is also at stake.

THE PERSONALITY DETERMINANTS

Within psychology, the different perspectives of cognitive, personality and social psychology have all attempted to explain individual differences in risk-taking and traffic accident involvement (Arthur, Barrett, and Alexander, 1991; Parker and Manstead, 1996). Cognitive research has traditionally studied variables such as management of attention and information processing capabilities, whereas personality research has focused upon the predictive value of personality traits. At the same time, socio-psychological research has attempted to explain differences in risk-taking behaviour and accident involvement within the framework of social cognition models. Despite the extensive research within these areas of psychology, few studies attempt to integrate variables from these different research traditions. For instance, personality traits are rarely studied together with social cognitive variables.

Different perspectives of cognitive, personality, and social psychology have attempted to explain risky driving and traffic accidents. Personality research focuses on the reductive value of personality traits. It attempts to explain differences in risk taking behaviour and accident involvement within the framework of social cognition models, where variables such as attitudes, perceived risk, social norms, and perceived behavioural control are central determinants of behaviours (Ulleberg & Rundmo, 2003). In the social psychology domain, there have been a lot of interests in studying risky driving in the individual life context.

In one of the studies high- and low-accident drivers in a taxi firm were examined. Through an interviewing process it was found that driving habits and high accident record were simply the manifestation of a way of living that had been demonstrated in drivers' personal lives (Wang, 2011). That is to say "a man drives as he lives". Hence lifestyle also becomes a determinant of risky driving and traffic accidents. Driving behavior is not an isolated behavior. It is connected to other aspects of life and is affected by the individual's value, attitudes, and motivation. Hence within the psychological research field, various perspectives such as cognitive and personality have attempted to explain individual differences in risk-taking and traffic accident involvement.

Social cognitive research focuses on studying variables such as the management of attention and information processing capabilities, and consequently, the most popular strategies of promoting road safety are to change drivers' attitudes and risk perception with regard to unsafe driving. The associations between risky driving and life situations have been investigated in quite a few studies. Most of them used two approaches. One was the problem behaviour approach, which showed that unsafe driving was highly related to problem behaviours such as smoking, drinking, antisocial behaviours and involvement in non-organized activities with friends. The other was the lifestyle approach, which identified correlations between driving behaviour and lifestyle aspects, including infrequent participation in sport activities, frequent intoxication, and low commitment to study and other organized activities.

Personality research emphasizes the predictive power of personality traits that are not evaluative, do not refer to specific objects, and are more stable as compared to attitudes that are defined as evaluative conditions with reference to specific objects. Personality traits such as sensation-seeking, aggression and social deviance are found to be frequently related to involvement in traffic accidents. The integration of both social cognitive and personality psychology approaches provides an understanding of the mechanisms underlying drivers' risk-taking behaviours on the road and is therefore important.

KNOWLEDGE, SKILL AND ATTITUDE

Since ancient times there has been agreement among philosophers that human capacities are organized into three distinct groups corresponding to the three fold human nature: the will (attitude), the understanding (knowledge and skill), and the actions of an individual (behaviour). Psychology always defines driving behaviour in terms of these three inter-related domains of human behaviour. Driver education and training need to explicitly address each of the three domains of driving behaviour. Different instructional activities are needed for acquiring driving competence in each of the three domains. Similarly, when testing the competence of drivers, all three domains must be assessed by suitable and valid questions.

Modern psychologists also function within this threefold system of behaviour. What pertains to the behaviour of the will is called affective behaviour and includes affections, feelings, motives, needs and everything that pertains to the goal-directedness of people's actions. For example, signalling before changing lanes is a sensory motor behaviour embedded in an affective context. Here the driver maintains the motive of avoiding driving errors. In the absence of this motive, errors are committed and the driver fails to signal. Learning to maintain the motive of avoiding driving errors is an important affective driving skill. Frequently, affective driving errors occur when conflict between motives is experienced, as when a driver is in hurry and speeds. The feeling of wanting to be cautious and law abiding is weakened by the feeling of urge to hurry and not be too late. The theory of driving behaviour includes the capacity to explain the content and organization of affective driving skills and errors. What pertains to the behaviour of the understanding is called cognitive behaviour and includes cognitions, thoughts, and reasoning that pertains to the decision-making and analyzing aspects of people's action. For example, signaling before changing lanes is not only embedded in an affective (motivational) context, but in a cognitive context as well. Here the driver processes information by common sense and logic. Learning to make correct judgments in routine driving incidents is an important cognitive driving skill. Frequently, cognitive driving errors occur when an illogical sequence of interpretation leads to an incorrect decision, as for instance: "I know there is nobody behind me, therefore I won't bother signalling this time." This erroneous decision overlooks several reasons that should be taken into account such as: There may be somebody in my blind spot, or there may be somebody from the front that might turn in, or there may be a policeman watching; etc. A comprehensive study of driving behaviour has the capacity to identify correct and incorrect decision-making, and specify how cognitions interact with affections to produce overt acts.

The aspects of, the individual's overt actions is called sensory motor (or psychomotor) behaviour and includes all the experience that is mediated through sensory and motor channels. For example, signalling before changing lanes is a complex psychomotor action involving eye-hand coordination, motor readiness to apply the brakes if needed, twisting of neck to look behind, changes in breathing pattern, and less visible endocrine and neurologic changes. A realistic driving theory includes the specification of the sequence of sensory motor actions of drivers and how these are influenced by the on-going affective and cognitive context.

EVOLUTIONARY LEARNING IN SAFE ROAD USE

Acquiring the range of fundamental psychological skills and knowledge required in order to interact with traffic, together with the ability to deploy these strategically in different traffic situations, is a lengthy developmental process that begins early in life (Thomson *et al.*, 2006). Attitudes to safe driving emerge well before any formal driver training takes place and that these lay the foundations for adult attitudes and behaviours (Waylen & McKenna, 2002). It needs also to be borne in mind that the relationship between attitudes and behaviour is complex, and this is at least as true in the course of development as it is in adulthood.

Over the period from the pre-school years to their teens, children have extensive direct and indirect opportunities to acquire information about drivers and driving. Some of this information, and the associated attitudes and emotions, may in turn be incorporated into young people's own expectations and practices as novice drivers. During adolescence, young people are undergoing dramatic changes in their cognitive capacities, their hormonal and emotional regulation, their relationships with parents and peers, their orientation to society and their sense of personal identity (Durkin, 1995; Keating, 2007). For example, adolescents have different sleep patterns and needs from adults, not least a tendency to wake up later in the morning, but the practical arrangements of their lives (school attendance or work requirements) may lead to early morning start times. Young people are coping with hormonal fluctuations and high energy levels, a desire to become less dependent on parents, strong motivations to engage with peer communities, the temptations of legal and illicit substances, and the need to define who they are (Durkin, 1995; Keating, 2007; Shope, 2006). All of these factors have extensive implications for the development of pre-drivers and early drivers.

Strecher *et al.* (2007a) has identified key psychosocial targets for safe driving behaviour in adolescents and reviewed prospects for interventions. The psychosocial factors proposed by him are: affective beliefs, perceived threat, perceived benefits of unsafe driving, subjective norms, personality, identity, task difficulty, and habit. However, two complementary themes are also very salient when a developmental approach is taken. One of these, namely contextual influences (especially, parents, peers and the mass media) bears on each of the above. The other, education, flows naturally from any consideration of how pre-

drivers develop, what influences the course of development, and typically of great practical interest; what can be done to promote the development of a healthy orientation towards road safety and driving. Contextual influences and education are not psychosocial factors akin to those identified by Strecher *et al.* However, they both have potential influences, and are therefore also addressed.

It is well established that young novice drivers, especially if they are male, are at greater risk of accidents than any other group. Extensive research has addressed a range of factors that might help explain this association, in order to inform attempts to mitigate risk (Keating, 2007). However, relatively little of this research has been concerned with the pre-driver period, and the influences that might extend from this into becoming a driver. This is despite the fact that: (a) age and gender differences in the risk pattern rule out any simple account in terms of inexperience; and (b) the elevated risk among members of this group emerges too rapidly to be due solely to behaviours acquired at that point. The research on the pre-driver period has tended, moreover, to focus predominantly on attitudinal processes to the exclusion of other types of influence. It has also lacks a developmental orientation aimed specifically at considering continuity and change over the transition to becoming a driver. The existing literature, therefore, presents a restricted basis for understanding the influences that might be operating over this whole period, and thus planning for interventions at the pre-driver stage.

In adult pre-drivers, the relationship between attitudes and behaviours is complex and subject to other influences. Of course, during this period attitudes cannot bear directly on driving behaviour, but they may bear on other aspects of road behaviour, and they may contribute part of the context in which young people progress towards driving. Importantly, at present, the evidence on the stability of attitudes and affective beliefs across the pre-driver and novice driver periods is scant and inconclusive. Some degree of continuity seems likely, but it is also probable that the extent of this continuity is dependent on the effects of personality, identity and contextual influences (peers or parents). Some changes come about as part of broader developmental changes in social reasoning (e.g. the tendency to question authority in late childhood and adolescence). The likelihood that there are changes during this period highlights a major opportunity for intervention.

Risk management in driving entails an array of perceptual, cognitive and emotional skills. Acquiring these skills begins in early childhood, but develops over a long period. Children's judgments of risks as pedestrians are often inadequate into early adolescence, and children show indications of subscribing to risk compensation bias and optimistic bias. They share these erroneous perceptions with their parents. Skills required for risk management are likely to be still developing through the teens. Adolescents approaching the age where they could seek a driving license may also be both more prone to emotional over-reaction in risky environments and less able to suppress appealing actions. Risk-taking is a natural part of adolescent development, but some teenagers are more prone to it than others, and some develop lifestyles of multiple risk-taking. These patterns, established in early to mid-adolescence, are significant precursors of risky driving and crashes in early adulthood.

FATIGUE AND STRESS

Driving is a complex task, requiring full concentration and a calm attitude. Stressed and strong emotions, whether they result from the driving task itself or unrelated matters, can affect a driver's ability for safe driving. For example, angry drivers are more likely to take risks such as speeding, rapidly switching lanes, tailgating and jumping red lights. All drivers are exposed to stressful driving situations from time to time, even if they do not generally suffer from stress in everyday life. Traffic jams, tailgating and generally dealing with other drivers' risk-taking can all lead to heightened stress levels. If a person drives while stressed he runs a much greater risk of being involved in a crash that kills or injures them or other road users.

The average number of driver interactions on the wheel has steadily climbed due to traffic congestion. Thousands of interactions with hundreds of vehicles create new challenges for drivers. Any one of these exchanges can go wrong when the context is hostile. They represent a tremendous diversity of competence, style, and purpose. The hundreds of drivers one encounters in a thirty minutes drive put us into contact with this diversity. It is unrealistic to expect homogeneity of driving styles. Drivers differ in gender, age, experience, familiarity with the road, physical health, mood, and the reason for them to be on the road. Not all drivers are in a hurry, not all drivers are alert, not all drivers are competent and not all drivers know how to coordinate with the rest of traffic. There is no doubt that stress, emotions, or lack of attention, is a problem for many drivers. Some people feel that they are stressed in certain situations, others may not realize it. Either way, they could be putting themselves at risk each time they drive. It is therefore important that all drivers know what to look out for in their own behaviour.

The following signs may indicate a stressed driver- feeling aggressive, feeling distracted, having near-misses or collisions and improper driving skills. The attitude of a driver towards safe driving can be assessed by answering the following questions.

- 1) Aggression - to what extent does an individual react to difficult driving conditions by driving in an aggressive manner
- 2) Thrill-seeking - how likely is a driver to take risks on the road in an attempt to raise their adrenaline levels?
- 3) Hazard monitoring - to what extent does a driver use observation and awareness of hazards to mediate the stress of driving, especially in risky situations?
- 4) Proneness to fatigue - how much does the stress of driving produce fatigue in the individual?
- 5) Dislike of driving - is the driver's stress level exacerbated by a dislike of driving or a lack of confidence in his driving abilities?
- 6) Confronted coping - does the individual cope with the stress of driving by being confrontational to other road users and taking risks?
- 7) Reappraisal coping - does the individual deal with the stress of driving by evaluating their own driving and learning from their mistakes?
- 8) Avoidance coping - does the individual ignore a difficult situation and cope with resulting stress by pretending nothing has happened?
- 9) Emotional coping - does the individual deal with their driver stress by criticizing themselves and blaming themselves for anything that goes wrong when they are driving?
- 10) Task focus coping - does the individual cope with the stress of driving by concentrating hard on the driving task and trying to adapt their driving to meet the requirements of the situation?

ATTITUDES AND AFFECTIVE BELIEFS

Attitudes are the evaluative judgments we make about any person, place, event or things. Attitudes are a mixture of belief systems and values that determine how we experience the world and how we respond to things in our lives, like driving. It is our attitude that determines how we will acquire and use our skills and knowledge when confronted with a driving challenge. Pre-conceived notions about other drivers based on age, gender or ethnicity, and expectations about their behaviour can create attitudes of intolerance and frustration where cooperation and patience may yield more positive results. Failure to accept our powerlessness in situations where traffic is slow or tied up can encourage aggressive driving behaviour in an attempt to reach faster.

Attitudes are the prime determinant of how much risk we take on the road. Risk tolerance is the amount of risk that we normally accept when performing a task like driving. What is crucial to understand is that our tolerance for risk can change in a moment based on our internal state of mind and the events around us. Our emotional state is one of the personal factors that can cause changes in our willingness to take risks. Stress, anger, overconfidence and fatigue are a few of these factors. Our expectations play a huge role in the process. If we live in a world of "should" we drive with the expectation that others *should* drive properly or safely, respect our space and follow the rules; then we are setting ourselves up for a stressful trip.

When another driver doesn't meet our expectations and doesn't do what they *should* do, we may respond in anger and find that our willingness to take an unsafe risk escalates. Anger at other driver's behaviour and frustration with traffic can cause us to take chances; so can minor problems, like running late. If we honestly ask ourselves if we have ever done something downright dangerous while driving under the influence of stress or frustration, the answer will likely be yes. Most people are good drivers, except during moments when they become angry, frustrated or otherwise influenced by factors that elevate risk tolerance. Changing expectations is just one stress reduction technique that can make a major difference in driver attitudes and behaviour. But most driving courses fail to consider it and instead bore drivers with reviews of rules that most already know and, for the most part, follow.

When we live in a world of "is" instead of "should," we drive with the expectation that there will be discourteous or rude drivers, and that there will be traffic tie-ups and delays. We are armed now, however with the knowledge and tools to safely and responsibly manage ourselves in these stressful situations. This goes a long way towards reducing risk-taking behaviour behind the wheel of vehicles. To make changes in fleet safety, simple driver training is only part of the

solution. Defensive driving course or refresher training that focuses only on driving rules and techniques misses the critical issue of personal factors and attitudes that change risk tolerance.

To be effective, driver safety training and education must focus on driver attitudes about risk and stress, and provide more meaningful and workable tools that people can use to self-manage these states.

An attitude can be defined as a positive or negative evaluation of people, objects, activities, ideas, or just about anything in your environment. It is a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor. As will swiftly become clear, it is an oversimplification to assume that individuals have singular, unitary attitudes towards particular phenomena or issues. We tend to have an array of beliefs in any given area, each of which can be associated with positive or negative evaluations. For example, a driver might hold the beliefs that (a) it is a good thing that traffic police are essential to ensure safe and efficient uses of the roads, (b) it is a bad thing that traffic police are rarely there when needed (e.g. to control reckless and incompetent drivers), and (c) it is deplorable that traffic police who stop me for speeding are unfair revenue-raisers. Each of these beliefs are accompanied by an affective reaction. These are referred to as affective beliefs (e.g., Lawton *et al.*, 2007). Importantly, an individual can hold multiple and even contradictory affective beliefs about the same topic.

The influence of attitudes is therefore determined to some extent by whichever specific beliefs seem most salient under given conditions (this will not remain uniform), and the combined strength of the evaluations associated with those beliefs. Attitudes are problematic. To the layperson, it seems obvious that there is a strong connection between attitudes and behavior and it is natural to assume that, if an individual holds favourable attitudes towards road safety, then he/she will be an exemplary driver but there is little research evidence to support it. At best, they have been found to be only weakly associated.

In an effort to explain why the influence is weak, contemporary research typically portrays attitudes as an indirect influence on behaviour, which operates by helping to shape people's intentions to act in one way or another (Ajzen and Madden, 1986). The impact of attitudes on actual behaviour is limited for three reasons. First, intentions are rarely translated into action completely. This is because external factors intervene to bring about other reactions. A driver might 'intend' to keep within the speed limit, but, finding that traffic delays have made him late for work, he accelerates when on a clearer stretch of road. Compromises between intention and reality are most likely in the moment-to-moment adjustments demanded by driving. Second, attitudes are only one of a set of influences on intentions (Ajzen & Madden, 1986, Terry *et al.*, 1999a).

In the present context, these points give rise to three questions concerning attitudes during the pre-driver period namely (1) what evidence is there that attitudes/affective beliefs, as opposed to some other related influence, are actually important determinants of driver behaviour, especially as regards riskier actions? (2) what sources of influence can be identified with regard to the acquisition of affective beliefs in the pre-driver period? (3) How stable are attitudes over time in particular, is there evidence that attitudes/affective beliefs acquired in the pre-driver period will carry over into novice driving?

Strecher *et al.* (2007a) argue that attitudes and beliefs are a relatively stable influence on driver behaviour, and that they help to determine the level of risk that individuals are prepared to accept. As already stressed, the relationship between attitudes and behaviour is not invariably straightforward. Research by Corbett and Simon (1999) identified four different driver profiles in respect of reactions to the installation of speed cameras. Conformers' (normally complied with speed limits on the survey road and so cameras would make no difference), 'deterred' (reduced their speed on the survey road to avoid detection), 'manipulators' (slowed down on approach to cameras and accelerated once away from them), and 'defiers' (continued as before, driving well above the speed limit). Notwithstanding very different behavioural choices, all types – including the manipulators and defiers – professed attitudes in favour of cameras.

Even if attitudes towards risk are relatively stable, the circumstances in which drivers actually operate can render attitudes more or less accessible. Drivers are unlikely to carry a stable view about risk around with them, which is always present in their mind, to the same extent. Consideration of risk may come to the foreground of consciousness under some circumstances (e.g. driving on a wet motorway at night under crowded conditions), while on many occasions (e.g. a quiet Sunday morning on a country road) it may not be in drivers' minds at all (Midlands Partnership Group, 2006).

At the very least, then, the influence of attitudes would appear to be an uncertain one. The implication is that the circumstances are in many ways more critical than individual drivers' attitudes, and that, in particular, it is collective affective beliefs and consequent intentions and actions that are the proper target of attention. In line with this, Terry *et al.* (1999a) found that, for those who attached great importance to their social group, group norms were as strong an influence on intention as individual attitudes. Viewed from this perspective, the distinct pattern of attitudes towards driver violations exhibited by, for example, drink-drivers relative to the general population (Baum, 2000) take on a potentially new significance, particularly if they tend to socialize with each other.

The key point here is that, if there is some underlying characteristic that ties affective beliefs about disparate behaviours together, it is a misnomer to call this an attitude, in the sense that this term is technically defined. It may be more appropriate to refer to a general orientation. That is, a driver will have a general orientation towards, for example, road safety that will be reflected in various ways. Any attitudinal statements that she or he endorses are part of this, and each in turn will be associated with affect, but also important are the driver's practical ways of behaving when behind a wheel, the extent to which she or he is responsive to perceived norms, her or his personality and sense of identity. This means that attempts to understand driver behaviour in terms of attitudes alone, or to improve behaviour simply by targeting attitudes, are inadequate.

Hence the answer to the question whether attitudes are important determinants of driver behaviour is that attitudes and affective beliefs certainly need to be taken into account as partial determinants, but it is important to recognise that the attitudes-behaviour relationship is complex. For this reason, attitudes need to be examined in relation to a host of other psychosocial and contextual factors, including skills, knowledge, experience, habits, norms, personality and identity. This is true of adult drivers and may be even more so of pre-drivers, whose developing orientations towards road safety are influenced by many variables.

OTHER INFLUENCES

Other influences include; perceptions of personal ability (for example, an individual's attitude that speeding is reprehensible may have less influence over his driving behaviour than his perception that he can handle a car well at 80 mph); the perceived attitudes of others (subjective or injunctive norms) – a person's attitude may be that drivers should leave a safe distance from the car in front, but his driving behaviour may reflect the fact that he perceives drivers behind as expecting him to move closer to the vehicle ahead; and the behaviours that others exhibit (descriptive norms) – one should stop at amber, but everyday observation leads to the recognition that most other drivers do not. Attitudes alone cannot explain safe and unsafe driving behaviour. In children, as in adults, the relationship between attitudes and behaviour is inconsistent. For example, Berg and Westerling (2001) found that a clear majority of secondary school pupils in a Swedish sample held attitudes in favour of wearing cycling helmets and believed that they were important for their safety; however, most of the children had abandoned wearing helmets.

Nevertheless, there is evidence of some formative influence of attitudes on intention and thence behaviour during the pre-driver period. Examining the relative influence of different variables among 12–15-year-olds on 11 cautious and risky pedestrian behaviours (e.g. waiting for the green man, running through gaps in the traffic), Tolmie *et al.* (2006) found that those who held more positive attitudes towards risk, and more negative attitudes towards caution, were indeed more likely to take risks. However, the strength of the association was never more than moderate. Moreover, further analysis showed that attitudes were typically related to self-identity, and that the latter had the stronger influence on intention. They found also that self-identity was strongly related to peer behaviour, and that it showed a progressive shift towards risk-taking with age, in line with a shift in the perception of peers as being more likely to take risks.

Other studies also point to ambivalent and multifaceted attitudes among pre-drivers. For instance, the Midlands Partnership Group (2006) report much excitement among adolescents about the prospect of car ownership and driving, linked in part to anticipation about its impact on personal popularity, especially, for males, in terms of potential girlfriends (Waylen and McKenna, 2002). When it comes to formulating a personal orientation towards driving, the basic premise for many adolescents is that it is a very attractive pursuit. At the same time, many perceive the behaviour of other drivers as dangerous and unacceptable. In this respect, adolescents appear to be acquiring self-enhancing attitudinal biases that are comparable to those of some adult drivers, namely the belief that 'I am safe and others are dangerous', or 'I am an above-average driver' (Deery and Fildes, 1999; McKenna *et al.*, 1991; Svenson, 1981; Walton, 1999). While it is hard to ascertain from these data how far these different perceptions reside within the same individuals, taken together the evidence is strongly suggestive of

ambivalence borne of the contrast between identities and related attitudes that have collective origins (i.e. which reflect socially desirable identity), and those that derive more directly from actual experience and insight, particularly where this has been more negative in character.

There are also subtype differences among young drivers. Clarke *et al.* (2005) report that young drivers of high performance cars are significantly more likely to take speeding risks. Deery and Fildes (1999) identified two relatively high-risk groups of young drivers, one characterized by high levels of driving-related aggression, competitive speed, sensation seeking and hostility, and another with low levels of emotional adjustment and high levels of depression, resentment and irritability. These subtypes had lower levels of driving skill than other young drivers.

Understanding that driving is associated with risk is much more than a matter of recognizing that 'accidents can happen'. Deery (1999) points out that it entails skills in hazard perception, attention control, managing time allocation across different components of vehicle management, and calibrating the relationship between one's ongoing performance and changing task demands. In each respect, novice drivers tend to be inferior to experienced drivers (Deery, 1999; Harré, 2000). Furthermore, novice drivers may compound risk by selecting an option which is itself risky for any driver (e.g. speeding), but which they are able to handle less skillfully than a more experienced driver; in turn, they may be more prone to overestimate their own skills in coping with the unnecessarily high demands that their risk taking incurs (De Joy, 1992; Harré, 2000). Young drivers tend to underestimate the risk entailed in various driving conditions (Bragg & Finn, 1982; Matthews & Moran, 1986).

Research on the perception of risk has demonstrated that many adults sustain perceptual biases, most notably an optimistic bias whereby they assume that their risk of mishap or injury is lower than it actually is, and a self-enhancement bias, whereby they assume that their skills are superior to average (Deery, 1999; Strecher *et al.*, 2007a). For example, White *et al.* (2004) found that drivers who used their phone while driving felt that they were less likely to have an accident than other drivers committing the same offence. Young drivers appear to be particularly vulnerable to these biases. There is evidence that optimistic bias is stronger in young people, especially young males (Clarke *et al.*, 2005; Harré, 2000). Similarly, self-enhancement bias is found in most age groups, but young drivers are particularly prone (Deery, 1999; McKenna & Horswill, 2006). They tend to overestimate their ability to handle in-vehicle devices such as audio systems, climate control, mobile phones and satellite navigation equipment, and are more likely to be involved in distraction-related accidents (Sarkar & Andreas, 2004; Neyens & Boyle, 2008).

It indicates a lack of integration of affective beliefs about driving among adolescents. Adults experience ambivalence, too, but have had more opportunity to work at integration (Higgins, 1987). In concrete terms, adults have had to reconcile their awareness of the positive and risky features of driving, whereas pre-drivers and novice drivers may have heightened perceptions of both, leading to states of psychological dissonance. At present, these are speculations based on qualitative data and they point to the need for additional quantitative research. However, if confirmed, then this would suggest that personal experiences during this more fluid period of development, and the affective beliefs that derive from them, may serve as a potential lever for influencing future perceptions and behaviour. These contrasting findings point to early adolescence as an important period for the impact of personal experiences and exposure to norms. Young people are still acquiring information and formulating values, and are sensitive to the attitudes of significant others, including peers and parents. Little systematic work has been done on the stability or otherwise of affective beliefs over the pre-driver and novice driving period, and on the factors that precipitate change.

At the same time, it is important to be aware of continuities. There are some indications of enduring patterns, for example, in respect of gender differences in attitudes to risky behaviours (including risky driving) from childhood to early driving. Waylen and McKenna (2002), using primary school, pre-driver and novice driver samples, report consistent tendencies across this age range for males to have more positive attitudes to different kinds of risk, and to exhibit behaviours consistent with these attitudes.

Learning to follow the rules of road safety (including formal safety information, such as the Green Cross Code, the Highway Code) and to respect the roles of key figures (like traffic wardens, police officers) are part of the process of learning how to use the roads that begins in childhood. Relatively little research appears to have been directed to the relationship between learning about these concepts and children's general developmental adjustment to authority. There are some key considerations here. First, children's understanding of rules and morality is a complex process that begins in the pre-school years and develops gradually through childhood into adolescence (Durkin, 1995; Kohlberg, 1969; Turiel, 1983).

There are some important shifts in reasoning on authority during adolescence (Kohlberg, 1969; Turiel, 1983). By this stage, understanding is more elaborate, but still not on a par with adults in many respects. However, the ability to question authority is high. Many adolescents especially boys – tend to resent authority and are hostile to figures such as the police (Ceci *et al.*, 2005). Hence, the relevance of attitudes to road safety is strong. Adolescents may be developmentally prone to rejecting the kinds of rules that are imposed in road environments and to skepticism/dislike of the people who enforce them (police, traffic wardens). This is not to say that all adolescents are irremediably and profoundly hostile to traffic authorities, but to suggest that the developmental processes of this phase place them in a different position to younger children in this respect. Attitudes to the rules governing driving may well be linked to children's broader attitudes towards schools and testing. For example, Christmas (2008) found that some pre-drivers regarded the driving test as part of the 'system' and something to be dealt with as quickly as possible.

In adults, the relationship between attitudes and behaviours is complex and subject to other influences. In pre-drivers, the relationship is complex, subject to other influences, and changeable over time. Of course, during this period attitudes cannot bear directly on driving behaviour, but they may bear on other aspects of road behaviour, and they may contribute part of the context in which young people progress towards driving. Importantly, at present, the evidence on the stability of attitudes and affective beliefs across the pre-driver and novice driver periods is scant and inconclusive. Some degree of continuity seems likely, but it is also probable that the extent of this continuity is dependent on the effects of personality, identity and contextual influences (peers, parents). Some changes come about as part of broader developmental changes in social reasoning (e.g. the tendency to question authority in late childhood and adolescence). We need more research into how the patterns shift over the course of adolescence. The likelihood that there are changes during this period highlights a major opportunity for intervention.

The available research with adult drivers establishes, not surprisingly, that there are individual differences in orientations to risk (Vassallo *et al.*, 2007). Overall, male drivers are more likely to take risks than female drivers, though there are variations within gender, too (Baxter *et al.*, 1990). Older drivers tend to be lower risk takers than younger drivers (Musselwhite, 2006), though, again, there are variations within age group. It is well established that, overall, young drivers take more risks and are disproportionately likely to be involved in accidents (Fergusson *et al.*, 2003; Jonah, 1990). Fergusson *et al.*, with a sample of 907 21-year-old New Zealand drivers, found that over 90% reported having committed some risky driving behaviours during the past three years, the most common being speeding and driving within four hours of having consumed alcohol. Smaller percentages reported very high-risk behaviours such as street racing (11%) and deliberately running through red lights (8.3%).

RISKY DRIVING AND PERCEIVED BENEFITS

Several studies have provided evidence that some individuals do perceive benefits in risky driving (Strecher *et al.*, 2007a). Obvious benefits include arriving at one's destination faster by speeding, the satisfaction of taking revenge on another driver perceived to have transgressed in one's space, or the arousal of handling a vehicle under pressure. Many young drivers, especially young males, are particularly attracted to the thrill of speed (Clarke *et al.*, 2005; Fuller *et al.*, 2008). Perceived benefits may outweigh perceived risks (McKenna & Horswill, 2006). McKenna and Horswill (2006), in adult samples, found that concern about accident involvement was the worst predictor of risky driving. The best predictors out of the factors examined were legal constraints and journey time. Mood and thrill seeking were also good predictors of risk taking behavior.

Moller and Gregerson (2008) surveyed over 4,000 young drivers (18–25 years) about the frequency of their risk taking while driving, their beliefs about the psychosocial functions of driving, and their leisure-time activities. Nine psychosocial functions of driving were assessed: practicality in everyday life; independence; seeing friends easily; status; freedom; becoming an adult; adventure with friends; blowing off steam; and get any place. Each of these was significantly related to a level of self-reported risk-taking behaviour. Among the leisure-time activities, being interested in cars, acting as a chauffeur for friends and driving with friends for fun were associated with higher scores on risk taking.

Risk taking is normative in adolescence (Arnett *et al.*, 2002; Durkin, 1995; Galvan *et al.*, 2007). Most teenagers take some risks in some areas of their lives, and a minority takes many risks (Jessor, 1987). Risks are taken in experimentation with alcohol and other substance use, sexual behaviour, school performance, petty crime and antisocial behaviour, and in aspects of road use, though it is perhaps less clear how genuinely threatening such experimentation actually is.

Few studies are available of specific patterns of road-related risk taking in adolescents, though research in the context of pedestrian, cycling and car passenger injuries would all seem to support the existence of a growing willingness on the part of adolescents to accept or even seek risk. For instance, epidemiological data indicate broad increases in injury rates with age, though there is some country-to-country variation in the precise patterns. In general, peak pedestrian injury rates in developed nations tend to occur between 11 and 16 years (Roberts *et al.*, 1998). This holds for the UK, although with some variation according to gender. Sentinella and Keigan (2004), in an analysis of police fatal accident files, found a peak in pedestrian fatalities at age 12 for boys and at age 14 for girls. However, rates remain elevated throughout early to mid-adolescence.

The picture is similar for cyclist injuries albeit with a sharper gender divide in incidence, with boys accounting for 83% of all child cyclist casualties (Durkin *et al.*, 1999). Car passenger casualties also show a marked increase in the 11–15 age group, relative to younger children, but only where the driver of the vehicle was in the 16–19 age group; for other age groups of driver, the incidence is either stable across passenger age groups, or actually declines with age. The fact that girls account for just over half of car occupant casualties where they are a much smaller fraction of pedestrian and cycling casualties suggests a particular pattern of involvement on the part of girls being driven by slightly older teenage boyfriends, and being implicitly prepared to accept the risk that this presents.

This apparent pattern of accelerating preparedness to accept and take risks during adolescence is borne out by more detailed psychological research, raising a worrying prospect of declining risk aversion just at the point of first learning to drive. Tolmie *et al.* (2006), for instance, found significant shifts between 12 and 15 years towards more positive attitudes to risky pedestrian behaviours and more negative attitudes to cautious pedestrian behaviours. This appeared to reflect a normalization of risk taking, since these shifts were associated with perceived increases in peer risk-taking over the same age range. The trend was also stronger among boys, and corresponded to self-report of a greater incidence of pedestrian injuries.

However, both the casualty data and the psychological evidence need to be interpreted with care. With regard to the former, for example, the increase in pedestrian injuries is accompanied by an increase in exposure, both in terms of time and number of roads crossed. When this is taken into account, the accident risk per unit of exposure actually declines with age in boys – though it does increase for girls (Bly *et al.*, 1999). If boys in particular are taking more risks as they go through adolescence, then the implication might be that they are also getting better at judging when it might be safer, relatively speaking, to do so.

The extent to which they really are taking more risks is also questionable, though; the change in attitude patterns reported by Tolmie *et al.* (2006) was modest, and was far outstripped by a perceived increase in risk taking on the part of peers. Since any respondent was likely to have been part of the set of peers referred to by other respondents, it would seem that the shifts in risk taking are more perceived than actual, though this, in itself, may create some pressure in favour of risk. Elliott (2004) points to a similar conclusion.

The pattern of gender differences might also be less significant than it appears to be. Tolmie *et al.* (2006) found that, while adolescent males displayed riskier attitudes, intentions and behaviour than females, the influences leading to elevated risk were identical for boys and girls. Thus, the apparent differences may reflect nothing more than lags in exposure to these influences – and to roads themselves, hence girls' increased accident risk per unit of exposure as they grow older. More research is needed here, but there are grounds for thinking that adolescent girls and boys are simply at different points in the same developmental sequence. The net conclusion from the pedestrian research – there is a dearth of comparable research relating to influences on risk taking as a cyclist or car passenger – is therefore that the increase in risk propensity during adolescence may be relatively small overall, and that individual variations may be a more significant concern. Even here, it is unclear how far risk-taking behaviour is actually stable and consistent across contexts, though there are some data to suggest that patterns among novice drivers are in line with the trends noted above for pedestrians.

Bina *et al.* (2006) found among a sample of 645 Italian adolescents aged 14 to 17 that have some similarities to Fergusson *et al.*'s (2003) data for 21-year-old New Zealand drivers, above. Fergusson *et al.* found that over 90% of young adults reported having committed some risky driving behaviours during the past three years. Bina *et al.* (2006), found that some 84% of their teenage sample reported at least one violation of the penal and highway code within the preceding two months. These teenagers were too young to obtain driving licences, but most rode mopeds or motorcycles, and a fifth of these had driven cars without a licence. By at least adolescence, young people are aware that there are risks associated with driving and they appreciate that traffic injuries are a leading cause of death among the young (Harré *et al.*, 2000; Ramos *et al.*, 2008). Nevertheless, despite some cognitive awareness of risk and its consequences, adolescents remain vulnerable to compensatory errors.

Because these phenomena involve cognitive competencies, and cognitive ability is still developing through childhood and adolescence, it is of interest to consider how optimistic and self-enhancement biases develop in pre-drivers and whether they might be appropriate targets for intervention in pre-driver education. In fact, however, the evidence is somewhat mixed (Harré, 2000). Some researchers have found no evidence of differences between adolescents and adults in estimations of personal vulnerability in risky situations (Furby & Beyth Marom, 1992). In one study, adolescents (mean age 15.2 years, range 13 to 18 years) showed unrealistic optimism in respect of being hurt in a car accident, but their parents showed significantly greater unrealistic optimism on this item (Cohn *et al.*, 1995). Christmas (2008) makes the interesting point that pre-drivers are often exposed to commentaries (e.g. their parents') in which the driver implies his or her own superiority over other road users (commenting on their poor skills and bad behaviour), and this everyday process may feed into pre-drivers' inferences about how a safe driver behaves; even if the role model is in fact somewhat less than an ideal driver.

Impaired driving carries serious consequences for the driver and innocent victims. If a driver is impaired and causes a crash, whether it results in a death or not, the effects can change or ruin lives forever. It could also mean life in prison for the impaired driver. Impaired driving involves being behind the wheel of a vehicle after consuming alcohol, illegal drugs, and even over-the-counter cold medication to the point where it can impair your driving abilities. This is considered a criminal offence. Consequences for this act can include loss of driver's license, being fined or time in prison.

CONCLUSION

Knowing the rules of the road and understanding the rights and responsibilities of other road users is an important part of road safety awareness. Crashes can and do occur. We can significantly reduce the risk by following the basic road safety principles. For example defensive driving can be a way for drivers to avoid accidents. Everyone can benefit from knowing and using defensive driving practices. Defensive driving means you are thinking in advance about any possible problems that could happen while you are driving and are prepared to respond quickly. There are also increased safety risks due to driver distractions. Activities such as talking on a cell-phone or using other electronic devices are associated with the greatest distraction-related crash risks. Knowing traffic laws and rules helps to keep the road safe for drivers and pedestrians. Ignoring these laws and rules can result in expensive traffic fines or, for serious offences, removal of your licence. Dangerous or negligent driving that result in someone being injured or killed can lead to a criminal conviction and prison. The current methods of driver training which mostly focuses on inculcating the skills should be further improved by incorporating the knowledge needed to promote safety and the attitude needed to use the roads responsibly.

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THE IMPLEMENTATION OF ALTERNATIVE DISPUTE RESOLUTION MODEL FOR CONFLICT RESOLUTION TO IMPROVE PUBLIC SERVICE OF INDONESIAN POLICE: SOCIETY CONFLICT RESOLUTION BY THE IMPLEMENTATION OF ALTERNATIVE DISPUTE RESOLUTION CASE STUDY IN POLRESTA SURAKARTA/SURAKARTA POLICE

RUDI HARTONO

STUDENT

**DOCTORAL OF PUBLIC ADMINISTRATION PROGRAMME
DIPONEGORO UNIVERSITY IN SEMARANG
INDONESIA**

DR. SRI SUWITRI

PROFESSOR

**DOCTORAL OF PUBLIC ADMINISTRATION PROGRAMME
DIPONEGORO UNIVERSITY IN SEMARANG
INDONESIA**

NYOMAN SERIKAT P. JAYA

LECTURER

FACULTY OF LAW

**DIPONEGORO UNIVERSITY IN SEMARANG
INDONESIA**

HARDI WARSONO

LECTURER

**DOCTORAL OF PUBLIC ADMINISTRATION PROGRAMME
DIPONEGORO UNIVERSITY IN SEMARANG
INDONESIA**

ABSTRACT

The implementation of ADR for individual conflicts resolution in society is a breakthrough of POLRI (Indonesian Police) to improve public service. The writing is focused on the phenomenon in the implementation of ADR in Surakarta Police purposes to explain, to explore and to explain the aspects influencing the implementation of ADR policy for society conflict resolution in Surakarta Police. The implementation of ADR or Restorative Justice in Surakarta Police was still not running optimally, because ADR policy is still not detailed rules for the implementation. Moreover, the legal framework of the implementation has not been able to provide assurances for the outcome of resolution by ADR. Besides, investigator as a policy implementer was still passive and should wait for superior's order because of the less ability of investigator to understand the law and to communicate so it led into the less ability of investigator's discretion as policy implementer which raise a sense of afraid to report ADR results to the above unit. Furthermore, there was lack of budget for infrastructure and incentives for the investigator.

KEYWORDS

Alternative Dispute Resolution, Public Service, Society.

I. INTRODUCTION

Maintaining order and safety of society is an absolute duty that must be carried by Indonesian Police on the side duty as protector and public servant as well as law enforcement (Momo Kelana: 2002 page 75). By those basic duties and regarding to Indonesian Police institution target, that is entirely devoted to the public, then the institution should be positioned as a public institution not a private institution.

The role of Indonesian Police as a public institution is not a new thing, because it is impossible that a police organization is a private institution engaged on the basis of individual ownership and oriented to the achievement of optimal profit for their owners (Andrianus Meliala: 2002: 29). Therefore, policy of Kapolri (Head of Indonesian Police) about public orientation is appropriate, in accordance with the position of Indonesian Police as a public institution. Policy is not made without a process. By regarding to society demand, society and bureaucrats support, and the external and internal environment of Indonesian Police organization (Leo Agustino: 2006: 20), the policy focusing on Indonesian Police as public servant in the field of security and order, and the perspective of Indonesian Police as public institution for a good governance in Indonesian Police institution has existed.

Indonesian Police as one of the state institutions that provides public services, also has carried out the first wave of Bureaucratic Reform ranging from 2004 to 2009, and the first year of the second wave of Bureaucratic Reform in 2010. During a wave of Indonesian Police Reform, the society has felt that the service of Indonesian Police for them especially in the law enforcement process against individual conflict has not been able to protect the poor. The current law acted as a sharp knife down but blunt up, which means that the law is applied firmly against the poor, but not for the rich and the officials.

For giving a response to the less practice of law in Indonesia and for a purpose of good governance, Indonesian National Police as a public institution that provides public service did the reform in handling society conflict especially for the resolution of criminal cases by issuing Head of Indonesian Police letter No.: B/3022/XII/2009/SDEOPS, dated December 14, 2009 about case resolution by Alternative Dispute Resolution (ADR). The letter is a form of problem solving in the implementation of Alternative Dispute Resolution (ADR) concept, a model of social problem solving by an alternative way in addition to legal process or non-litigation as an effort to seek a win - win solution. The implementation process of ADR gives priority to mediation process by a mediator with conflict management to realize a win-win solution. Beginning with a discussion on conflict management in ADR, the studies of ADR are included in Public Administration. Currently such resolution in the Indonesian National Police is often referred to resolution by ADR using restorative justice approach. The principle of restorative justice is justice that seeks to restore the state to its original state, to give benefit, and to win all parties, is not locked up in rigid and procedural mechanisms.

Globally, the implementation of restorative justice has also been recommended by the United Nations (UN) in 2000. In these recommendations, the UN invites all nations to adopt a restorative justice in criminal system.

ADR is one form of police discretion¹ to act in the public service carried out by police's assessment in the field in order to resolve conflict in society concerning misdemeanor; it can be seen in article 18 subsection 1 of Law No. 2 of 2002 about Indonesian Police.

Police continues to encourage society conflict resolution, especially for misdemeanor cases using ADR concepts, one of which is in the region of Surakarta Police, a locus of this study. Based on the data obtained from the Surakarta Police from 2010 to 2011, the Surakarta Police has used ADR concept for society conflict resolution or criminal case. In 2010 the numbers of reported criminal cases in Surakarta Police were 1847 cases where 1197 cases can be resolved in details 805 cases were resolved by ADR and 392 cases were transferred to the Public Prosecutor. In 2011 the numbers of reported criminal cases were 2063 cases where 1214 cases can be resolved in details 684 cases were resolved by ADR and 530 cases were transferred to the General Prosecutor. The data indicated that more criminal problems in Surakarta Police can be solved by ADR rather than the transferred cases to the General Prosecutor.

Problems that often arise in the implementation of ADR in Surakarta Police are demand compensation from the victims in the form of material or a sum of money to the suspect in a big amount, so it will cause difficulties in reaching an agreement so that the victims will demand the reported criminal cases for the denial agreement by the suspect. During 2010, there were 20 (twenty) cases and in 2011 there were 25 (twenty five) cases that have been resolved amicably, but reported again about the same case.

Society conflict resolution with the implementation of ADR in the region of Surakarta Police is still seen to be done by way of stealth and not reported transparently to the above unit because there is no similar SOP (Standard Operating Procedure) for society conflict resolution for misdemeanor by ADR in every district of Central Java Police.

Addressing the arise problems; it needs a policy to accommodate the shape of social conflict resolution in society outside the court. For strategy implementation, Polmas (Police of Society) in Surakarta Police should cooperate and empower society to participate actively in finding and identifying solution for social problems which interferes safety and order of society. The Surakarta Police didn't bring the small cases immediately for the investigation, but gave a higher priority to resolve the conflict by involving social institutions in society with principles of partnership (PPP) and problem solving.

Based on the background mentioned above, the problem statements in this research focused on searching for the answers to the following basic question: "**How was the implementation of Alternative Dispute Resolution model for conflict resolution to improve public service of Indonesian Police (society conflict resolution with a criminal background by the implementation of ADR case study in Surakarta Police)**"?

II. RESEARCH METHODOLOGY

This study was conducted by a case study approach enriched with the help of qualitative techniques through survey method in some parts needed. In choosing the research methods there are three considerations, namely: (1) the type of research question, (2) the researcher control to the research, and (3) the focus (contemporary or historical phenomena) of research phenomenon.

The research methods are:

- 1) Analysis unit: Surakarta Police.
- 2) Informants: the officers of Surakarta Police, the investigators of Surakarta Police, the General Prosecutor of Surakarta Judiciary, Public Private Institution, and society figure involved in the Police and Society Communication Forum (FKPM/BKPM).
- 3) Data collection techniques: As a case study, the data was collected by uncovering the phenomena of argument hypothesis.
- 4) The methods of data collection were done by:
 - depth interview,
 - FGDs (Focus Group Discussion),
 - observation, and
 - review of secondary data

Because of the use of the triangulation technique, or Yin (1987) called it as a survey in case study, this research also enriched the data by filling out the questionnaire.

The focus of this research is the process of ADR implementation and the dynamic factors affecting the analysis unit in Surakarta Police. The dynamic factors affecting the analysis unit could be some supporting and inhibiting factors in Surakarta Police through the variables affecting the public policy implementation. There is a term like Alternative Dispute Resolution (ADR) and Restorative Justice in this research. ADR is a form of resolution used in the handling of the case, while Restorative Justice is an approach used in ADR.

The techniques of data analysis in this research used the steps as proposed by Burhan Bungin (2003: 70), as follows:

1. Data Collection
2. Data Reduction
3. Data Display
4. Conclusion Drawing and Verification

Then, the analyzed data is described and interpreted in the form of words to describe the facts on the spot, to give a meaning, or to answer the research questions.

III. RESULTS

III.1. IMPLEMENTATION OF ALTERNATIVE DISPUTE RESOLUTION IN SURAKARTA POLICE

ADR is applied to a particular conflict or not all of conflicts with criminal background can be resolved by ADR. The particular conflicts are conflict of misdemeanor, criminal with children under age as suspect, not a narcotic criminal, criminal that did not result in serious injury. Conflict of criminal background with children under age is a priority conflict to be resolved by ADR, the next priority is criminal which did not result in harmful, serious injury or death. The focus is that in the resolution by ADR does not apply to a recidivist. ADR cannot be applied to cases with acts to threat country's security or harm the country's economy.

Based on the documents searching by the writer, it is known that during January to June 2013 there were 183 cases that have been resolved by ADR policy, which in the resolution, there were several types of conflicts with criminal background.

Based on the results, the investigators determine the formal requirements before implementing ADR. Through the research, the formal requirements were not stated in the SOP of ADR in Surakarta Police. Meanwhile, the classification of conflicts or matters was not in accordance with the SOP of ADR in Surakarta Police yet, which are carrying weapons, fiduciary, extortion, domestic violence, health law and abuse. Based on some of the findings of the study, the writer concluded that the classification of solved cases by ADR implementation was not in accordance with the SOP of ADR in Surakarta Police yet.

Problem resolution in society can't be separated from customs prevailing in the society especially the customs of Surakarta Palace. Problem resolution in Surakarta Palace became one of the triggers drivers for the implementation of ADR model in conflict resolution occurred in society of Surakarta.

Based on the research findings, it can be concluded that supervision and control of the implementation of ADR is conducted by superior investigator like Head of Operational Unit or Head of Sector Police to the staff or the investigator who handle the case, investigation, administrative investigation and other supporting administrative. The results of ADR have been recorded in the register book of resolution by Restorative Justice or ADR and have been filed by administration of Criminal Detective Unit in Surakarta Police. But some of the resolved cases by ADR were still not followed up with SP3.

¹ Article 18 Law No 2 of 2002 paragraph 1: For public interest, the officers of Indonesian National Police do his duty and authority according to his own assessment.

Basically there are two paradigms in the public service; the first is a public service paradigm with service manager oriented. This paradigm is more bureaucratic, directive, and only pays attention/priority to the interests of leader/its service organization. Public service should be managed by supportive paradigm which focuses more on the interests of people who use the service; managers must be able to serve and not to be served.

Based on the theoretical study of public servant, the bureaucracy reform in Indonesian Police as public service should follow the service paradigm which satisfying customers or public².

The implementation of ADR in Surakarta Police to improve public service could be viewed from the principles of good governance in the following description.

1. LEGAL CERTAINTY

ADR is applied in police institution due to Head of Indonesian Police letter Number: B/3022/XII/2009/SDEOPS dated December 14, 2009 about case resolution by ADR, and Head of Indonesian Police Regulation No. 7 of 2008 Article 14 letter f about the activities of Police of Society in social problems resolution outside the legal ways by agreement with ADR concept.

2. TRANSPARENT

In the implementation of ADR, society has a right to obtain information about public interest. To ensure transparency in the implementation of ADR or Restorative Justice, Surakarta Police involves society figure including Public Private Institution. After the agreement between the two sides, the agreement results that have been made in mediation are known by both parties and other parties who are competent in the case.

3. RESPONSIVENESS

The role of the investigator in a consultation or as a counselor reflects that the implementation of ADR has positive responsiveness level in providing directions and guidance to the community and responding to people's desire to solve the case or conflict they experienced as quickly as possible.

4. FAIR

From some of the research findings, implementation of ADR has met a fair principle from the maximum role of mediator in order to realize a peace that benefits both sides which are in conflict and a distribution of service to people who have conflicts.

5. EFFECTIVE AND EFFICIENT

From the research findings about the implementation process of ADR, if a case failed, a mediator who is held by investigator should play a role for mediation. Based on the results of interview with some Head of Police Criminal Unit, the investigator who played a role as a mediator would be interfered by other cases so that it would lead to disrupt other community service. So the role of investigator who also has a duty as mediator will make less efficient of ADR implementation.

6. RESPONSIBILITY

In the implementation of ADR, the investigator as implementer has a duty to account for the implementation of ADR policy. As a form of responsibility to work in providing service to public, the investigator gives Developments Notice of Investigation after the agreement and the mediation, but for the instruction of investigation dismissal cannot be carried out all by investigators because many resolved cases by ADR has not implemented SP3. So the implementation of ADR is not maximized yet from a view of responsibility principle.

7. ACCOUNTABILITY

Accountability in the implementation of ADR can be seen from the job and legal responsibilities. Job responsibilities relates with the resolution by ADR to satisfy people who are served well by police. We can see it from the research findings explaining that people and some public private institutions supported by the implementation of ADR policy in conflict resolution with a criminal background. In the terms of legal liability, the resolution by ADR still leaves a gap to prosecute the case again in the future. This is because of the solved cases by a reconciliation agreement has been followed up by investigation dismissal or SP3.

8. NOT ABUSING AUTHORITY

In the implementation of ADR in Surakarta Police during January to July 2013 there was no abuse of authority committed by investigator, which is proved by the absence of disciplinary action undertaken by the Provost of Surakarta Police to investigator.

Based on the above description in a view of the principles of good governance, the implementation of ADR is approaching the criteria of good governance. The implementation of ADR had been running transparently characterized by engaging social institutions and society figures for case resolution process, and effectively since the resolution should not drag on the court, fair and responsive. However, there are some things that should be enhanced, first, the settled cases should be followed up in order to have the force of law so as to have the rule of law, and the second, the use of the investigator who serves as a mediator would interfere another case considering the very limited number of investigators.

III.2 THE ASPECTS AFFECTING THE IMPLEMENTATION OF ADR IN SURAKARTA POLICE FOR CONFLICT RESOLUTION

Many experts are of the opinion that the success or failure of policy implementation is influenced by several factors. This research uses four implementation theories, as follows Edwards III theory, theory of Van Metter and Van Horn, Grindle theory, theory of Mazmanian and Sabastier. From these theories, the writer took several variables for discussing the aspects affecting the implementation of ADR in Surakarta Police. The variables are the content of policy, communication, resources, disposition, bureaucratic structure and policy environment.

Based on some of these aspects, the study found some of the following:

1. THE CONTENT OF POLICY

Implementation of ADR was impressed not been able to accommodate the interest of community due to the lack of understanding of investigator as a policy implementer about the content of policy, and the classification of criminal cases includes the resolved category by ADR is quite inconvenient for investigator to define it. Head of Indonesian Police Letter of ADR has not quite served as technical guidance in case resolution by ADR. Surakarta society which is mostly the society of entrepreneurs expect that every conflict they experienced can be resolved quickly without taking so long so they could do a living easily, this is a trigger for the implementation of ADR.

Grindle (1980) reveals that the contents of policy include the following: (1) How interest of the target groups in the content of public policy was, (2) Types of benefit received by the target groups, (3) How the changes desired by the policy were. In a program aimed at changing attitudes of the target group's behavior is relatively more difficult to implement. (4) The correctness of the location of program. (5) Whether a program has mentioned its implementer in detail. (6) Whether a program supported by adequate resources.

So the implementation of ADR is expected in line with public's expectation and remains guided by article 13 of Law No. 2 of 2002 which mandates that the law enforcement must always be synergies with efforts to protect, to nurture and to serve public.

2. COMMUNICATION

In the implementation of ADR, the communication between Head of Surakarta Police and investigator was in a good condition, the transformation of information from superior to subordinate ran smoothly, vice versa. Head of Surakarta Police also provided guidance to the investigator frequently associated with investigation problems. However, Head of Surakarta Police seldom gave rewards to subordinates.

The relationship among investigators in everyday life is very harmonious and already established well. It will encourage the successful implementation of ADR in Surakarta Police. The communication model between investigators and the people who are in conflict has been done directly by phone or letter. Thus, communication in the ranks of Indonesian Police has run well in line with the reform process of the police bureaucracy.

The content of policy must be submitted by policy makers to policy implementers. The communication ran well in Surakarta Police, it is in line with Edwards III (1980) which expresses policy as a process of policy informing from policy-makers to policy implementers.

² David Osborne and Ted Gaebler's opinion about *Reinventing Government* on their work entitled *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector*, published in 1992

3. RESOURCES

Edward III (1980: 11) argues that the clear and consistency of provisions or rules, and the accurate delivery of provisions or rules, the implementation of policy will not be effective if the policy implementers who are responsible for implementing the policy are lack of the resources to do the job effectively.

The quality of public service is determined by quantity and quality of the personnel who are in duty, so the quality of investigator should also be noticed on investigation process and case investigation. The quality of investigators is based on their work experience or level of formal education.

Based on the data obtained from the research it can be concluded that the number of investigators of Criminal Detective in Surakarta Police are sufficient to carry out the activities, but there are still many investigators who do not have a minimum qualification of Bachelor Degree, education and training about mediators, and so on. Many investigators are studying based on their personal experience for the activities.

The authority of investigator to take discretionary authority related to the implementation of the ADR was very small because every action in the investigation should be responsible for law and for people who have conflicts or cases, and every action should be approved by superior investigator, as a form of control.

Infrastructure and budgets supporting the implementation of ADR were not sufficient, the budget only focused more on the investigated cases to a court, meanwhile, activities of resolution by ADR didn't use the investigation budget so that it can offer opportunities for the implementer to expect a helping hand from victim or suspect to release the resolution in some amount budget. The ability of investigators to implement the ADR program was not maximized because they are affected or constrained some facilities such as infrastructure and budgetary policy for the implementers.

4. IMPLEMENTER DISPOSITION

Van Horn and Van Matter (1974) say that a high disposition affects on the rate of successful implementation of the policy. Disposition is defined as inclination, desire or agreement of the implementers to implement the policy. To make it successful effectively and efficiently, the implementers does not only know what to do and have ability to carry out that policy, but also have willingness to implement the policy.

In the implementation of ADR, investigators have a commit to carry out ADR in accordance with the SOP of ADR in Surakarta Police, and always give priority for cases resolution about children and domestic concerns because the sociological view on these matters are considered higher priority than another case. But this commitment is not followed by an attempt to provide legal certainty of the resolved case by ADR.

The knowledge of investigator to the content of bureaucracy reform of Indonesian Police is quite good because it has been socialized properly through instruction, web site, police training and education.

When society needs action from bureaucracy apparatus, while the action has not been regulated in the existing procedures or contrary to a rule which he believes is not relevant then the bureaucracy apparatus must take discretion and accountable to the public. It is important for police with his integrity and personality as state officer to have courage to take initiative and to implement resolution by ADR although it may have a risk, but for the sake of justice and conscience consideration, the investigator apparatus should have attitude and responsibility.

Doubts and fears of investigator often exist in resolving case by ADR. The investigator considers that there is no direct command from his superior and no clear procedure about this. Therefore, the quality factor of the apparatus was quite good including ability, experience and skills in making decisions and risks, healthy, and clear conscience. Because of that, the investigator should have an authority to conduct case resolution by peace agreement or by ADR. According to the investigators in Surakarta Police, case resolution by peace agreement needed a courage and communication skills, good negotiation, so that the investigator could really be a good mediator, because it has a high risk.

The commitment and honesty of the investigators in solving case by case determines the success of peace agreement. The commitment regards to the seriousness of investigators to act and behave as good mediator who want to resolve the case for fairness of both the complainant and the victim. Honesty is not only an aspect of unusual action like remuneration, but it is an internal honesty of investigators who act on the right track, don't side both the complainant and victim, and there is no conflict of interest.

5. STRUCTURE OF BUREAUCRACY

Reform of the bureaucracy is very urgent to do. One of them is the institutional structuring of bureaucracy. According to Edwards III (1980) the implementation of policy can be no effective yet because of deficiencies in bureaucratic structure.

Long bureaucratic structure often becomes a source of problems in order to create a quality, effective, and efficient bureaucratic. Furthermore, the consequences of long bureaucratic structure can implicate the distortion of information. The simplification of bureaucratic work processes is needed. It affects a need for a road map of bureaucratic structure revamping. Road map is intended to be able to explain the possible reduction of power so as to realize good governance.

The command lines that exist in the organizational structure plays an important role, because up to now Indonesian Police still adheres to superior and subordinates, the firm of command lines can be a negative effect in the implementation of ADR if the superior does not order the case resolution by ADR, and it can be a positive affect if the superior has a firm command for the case resolution by ADR. The division of authority in the implementation of ADR depends on the existing command line, the investigator as implementer who plays a role as a mediator between the complainant and the victim, and the superior or supervisor plays a role as decision makers. The relationship between the units of investigation in Surakarta Police runs harmoniously viewed from several activities of case resolution and case transfer between the units. The harmonious relationship cannot be separated from the role of Head of Criminal Unit as superior investigator to direct his subordinates to obey the established policy.

The SOP of ADR in Surakarta Police has already existed but has no detailed and clear explanation so it may raise doubts to investigators as the implementer. The lack of clarity seems on the mechanism of dismissal investigation to cases resolution by ADR.

6. Social Environment and Society Support

The implementation of ADR usually involves complainant, victims, investigators, society figures such as RT and RW (administrative units), lawyer and expert team. The support or the attitude of community groups who are in conflict, socio-economic development and community support of Surakarta affect the successful implementation of ADR policy in Surakarta Police.

The people who are in conflict require the conflict resolution as soon as possible with low cost and remain to keep fair. The role of society figure is also needed by the investigator as a mediator to assist the resolution by ADR and to witness the mediation as the investigator feels frightened if one party who feel harmed will report the investigator to the Profession and Safeguard Field on a charge of his unprofessional duties.

Socio-economic and technological conditions of Surakarta community play a role to the success of ADR implementation because most people want a quick case resolution with a low cost. Surakarta community and some of Public Private Institutions support the ADR program implemented in Surakarta Police. The role of community in ADR or Restorative Justice is great as a society has a role in sociological deterrent effect in daily life to the perpetrators. That's why the community's opinion around the criminal scene and the residence of the suspect is necessary to be involved in the ADR process.

III.3 COMMUNITY CONFLICT RESOLUTION MODEL WITH MISDEMEANOR BACKGROUND BY ADR

The implementation of social conflict resolution associated with criminal background by ADR requires a model of standard resolution concept consisting of conceptualizing, planning, organizing, controlling and evaluating. The implementation of ADR requires a unit or team that acts as a mediator whose task is to carry out mediation, consultation, and to facilitate the negotiation process in achieving a win - win solution quadrant in conflict resolution.

In the proposed of ADR models, there are some differences in the case resolution models applied in Surakarta Police on the previous. The difference seemed on the case that is considered completed and discontinued with SP3 due to insufficient evidence underlying the agreement, revocation of police reports and revocation of witness statements in BAP (Criminal Official Report), and due to insufficient evidence of such article 109 of KUHP (Criminal Code).

The communication models required in a negotiation dialogue to achieve peace agreement and the consensus with Radial Venn dialogue model approach which emphasizes the role of mediator is not only as a facilitator who prepares, provides and carries out dialogue, but also has ability to embrace all the involved parties, as well as plays an active role as central force in pushing information to resolve cases involving himself up to interact with the relevant parties. Other communication model is a model of Circle without Direction dialogue which indicates that the mediator plays a role as a facilitator and a mediator in cases resolution plays an active role as a source of information for the parties or actors related with the matters.

The advantage of this model is to provide more opportunities for society to participate in resolving conflicts in society. Conflict resolution is carried out effectively and efficiently, and is not through the long process to the court. The resolution by the proposed ADR models has a clear legal basis, that is, the case is discontinued due to insufficient evidence with SP3 accordance with Article 109 of Criminal Code.

IV. CONCLUSION

The resolution by ADR or Restorative Justice should be immediately established by law as a case resolution with a permanent legal force. Such changes should be as applicable to the Juvenile Justice Act which applies Diversion in children who commit criminal acts. In the implementation, a special unit should be formed to handle case resolution by ADR so that the case resolution will be more focused on a win - win solution as both parties expected. The investigator will not be disturbed in handling other cases in priority.

To implement the concepts of public service in the implementation of ADR, it needs a clear firm, and comprehensive legal framework, and SOP of ADR with its implementation instructions in Police. So the concepts of model dialogue and social conflict resolution model with a criminal background by ADR proposed in this research can be used as a draft of SOP of ADR implementation in Surakarta Police or other police units.

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WORK LIFE BALANCE OF ENTREPRENEURS: A GENDER ANALYSIS

DR. KASAMSETTY SAILATHA
ASSOCIATE PROFESSOR & HEAD
PG DEPARTMENT OF COMMERCE
TTL COLLEGE OF BUSINESS MANAGEMENT
MYSORE

DR. M. SHIVALINGE GOWDA
ASSOCIATE PROFESSOR
DEPARTMENT OF COMMERCE & MANAGEMENT
VIDYAVARDHAKA FIRST GRADE COLLEGE
MYSORE

ABSTRACT

All over the world, entrepreneurship has been traditionally recognized as male prerogative. However, because of change in socio-cultural environment, increasing importance for girl child education, government policies and schemes of NGOs towards women entrepreneurship have started recognizing inherent talents and business skills of women and hence the number of women is increased in joining the rank list of entrepreneurship. However, in the existing family and societal setups, women entrepreneurs are overburdened and find it ever more difficult to balance their entrepreneurial roles and family roles. In modern society, we talk and debate more about the gender equalities and frame special policies to improve the status of women in the society. Therefore, the major objective of the present study is to compare the work-life balance issues and social issues faced by the male and female entrepreneurs. To fulfill the objectives, the researcher conducted the survey in Mysore by adopting the snapshot survey and served the structured questionnaire to 233 respondents comprising of 111 male and 122 female entrepreneurs and the researcher also adopted the face-to-face interview techniques wherever required. To analyze the data culled out, the simple statistics were used like mean and standard deviation and Person correlation was used to know the relativity of the problem faced by both the male and female entrepreneurs. The study revealed that problems like dual role, social harassment, work stress, etc. are more with female entrepreneurs compare to male entrepreneurs.

KEYWORDS

work life balance, entrepreneurs.

INTRODUCTION

As the early history of entrepreneurship in India is intimately associated with the country's culture, customs and traditions, entrepreneurship often evolved along with societal etiquette (Rizvi & Gupta, 2009). However, at present, the success of the individual as an entrepreneur depends largely on his or her imagination, vision, innovativeness and risk-taking ability and need not be intertwined with age-old cultural and societal etiquette. Current entrepreneurship is thus centered on creative thinking and the development of new ideas. However, whether this is the case for women entrepreneurs in India has not been fully explored (Reddy, 1991; Nayyar, Sharma, Kishtawaria, Rana, & Vyas, 2007). At this juncture, it is worth mentioning that entrepreneurs are different from small-business owners. Garland J. W., Hoy, Boulton and Garland J. A. C. (1984), and Stewart, Watson, Carland J. C. and Carland J. W. (1998) have made it very clear that small business owners are primarily concerned with securing an income to meet their immediate needs, rather than engaging in innovation. On the other hand, entrepreneurs exhibit higher achievement motivation and greater risk-taking ability and typically provide employment to others. In view of these reports and statements, the lingering question is what issues are confronted by women entrepreneurs in India, where entrepreneurship has mainly been considered a male prerogative.

WOMEN ENTREPRENEURSHIP IN INDIA

With the changing socio-cultural environment and increasing educational opportunities, women became aware of their potential to develop entrepreneurial skills. These socio-cultural changes, along with the eagerness of a spectrum of non-governmental organisations (NGOs) to associate with women entrepreneurs, have played a key role in the emergence of female entrepreneurship over the past few decades. Even though gender equality and equal opportunity are constitutional rights in India, different standards of behaviour for men and women still exist, including in the work environment. In rural areas, female participation in employment outside the home is in fact viewed as slightly inappropriate, subtly wrong and definitely dangerous to chastity and womanly virtue (Dube & Palriwala, 1990). Because of these societal standards and beliefs, female entrepreneurship in India is a comparatively nascent phenomenon. Dileepkumar (2006) and Khanka (1998) have reported that Indian women have started becoming entrepreneurs in sizeable numbers only recently, partly due to the formation of various self-help groups (SHGs), support from NGOs, higher levels of education and economic liberalisation. However, despite all of this support for women, female entrepreneurs are still far from on par with men in India. In contrast, the situation in developed nations has completely different from that in India (Blim, 2001; Parker, 2008; Zhang, Zyphur, Narayanan, Arvey, Chaturvedi, et al., 2009), with an overall socio-cultural environment favourable for women entrepreneurs. Even in many other developing countries, the growth rate of business by women entrepreneurs is higher than that in India. In Romania, women represent approximately 35.4% of all entrepreneurs (Noya, 2006). Additionally, in the Czech Republic, although women entrepreneurs owned 11% of the limited companies during 2001, roughly 49% of new businesses that were operational between 1991 and 2003 were owned by women (Jahanshashi, Pitamber, & Nawaser, 2010).

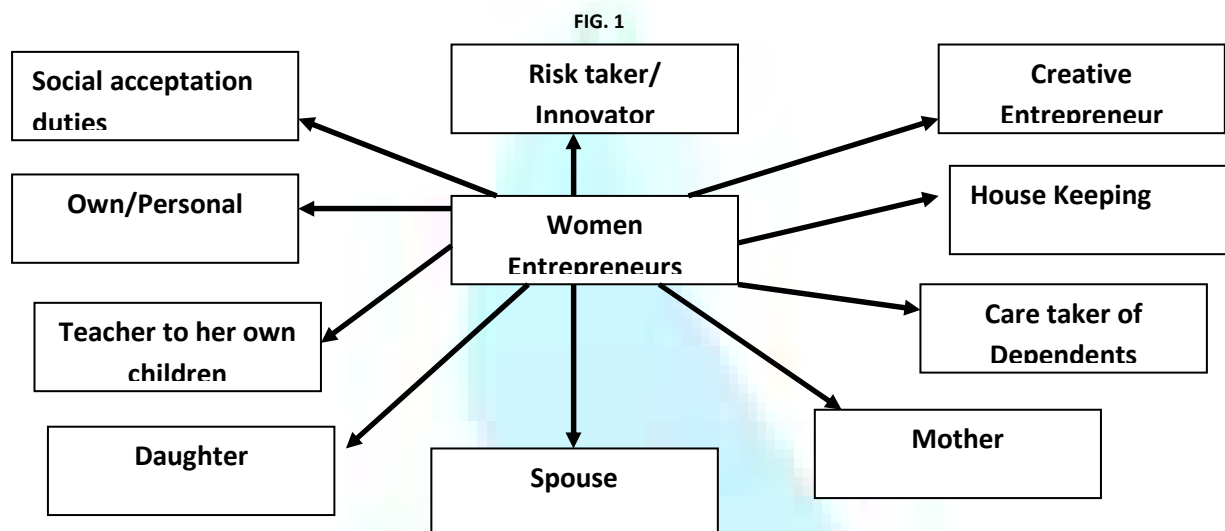
STATUS OF WOMEN ENTREPRENEURS IN INDIA

In India, growing industrialisation and urbanisation and revolutionary developments in the information technology (IT) sector have played key roles in changing the career patterns and professional roles of women. The government has also emphasised the need for special entrepreneurial training programmes for women to enable them to start their own ventures. Some of the agencies involved in this effort are the Federation of Ladies Organisation (FLO), the Technology Development Board (TDB) of Department of Science and Technology, the Entrepreneurship Development Institute of India (EDI) and the Federation of Indian Chambers of Commerce and Industry (FICCI). To encourage women entrepreneurship in India, selected financial institutions have also established special cells to assist female entrepreneurs. Along with the changing paradigms, Indian society has witnessed some highly successful women entrepreneurs, such as Shehnaz Hussain (a world-renowned Indian herbal beautician who owns a chain of beauty parlors), Ekta Kapoor (a celebrated Indian film and television productions) and Kiran Mazumdar (a leading Indian businesswoman and founder of the biotechnology firm Biocon). However, the majority of female entrepreneurs, especially in the middle and lower middle classes as well as in rural areas, still find it difficult to simultaneously meet their entrepreneurial and familial demands so as to attain a proper work-life balance (Mathew & Panchanatham, 2009a). According to Nelasco (2008), even though the leadership potential of women is very high,

this potential is hidden by social, economic and political constraints. Therefore, women who venture into entrepreneurial activity must be extraordinarily motivated and determined enough to carry forward a creative idea on their own. By doing so, they also contribute to the wealth of the country. These limitations are the probable reason why India's number of successful women entrepreneurs still lags behind that of developed countries (Kourilsky & Walstad, 1998; Godwyn, 2009; Rizvi & Gupta, 2009). However, in comparison to such neighbouring countries as Bangladesh, Sri Lanka and Pakistan (Goheer, 2002; Ayyadurai, 2006; Hossain, 2007), female entrepreneurship is in an advanced state in India.

WORK-LIFE BALANCE (WLB) ISSUES OF WOMEN ENTREPRENEURS

After overcoming many inherent disadvantages related to the deeply embedded traditional mindset and stringent etiquette, today we find Indian women engaged in different types of traditional (e.g., garment-making, beauty care, fashion design) as well as non-traditional (e.g., founding financial institutions, educational institutions, entertainment companies) entrepreneurial activities. In addition to their challenging entrepreneurial work, many of these women must also perform several roles in their families (see Figure 1). These roles include being a spouse, caretaker and parent; managing daily household chores; and providing services to the community and society. Women also must take care of their own health and other personal activities, which are often neglected because of role overload as well as time limitations. All of these situations lead to the absence of WLB and manifestation of many WLB issues.



In contrast, a study by CIBC (2004) revealed that women entrepreneurs in such developed countries as Canada are able to better balance their family life with work than those employed by someone else. The demands originating from the work and personal life of women are quite often mutually exclusive, rendering it very difficult to strike a balance between the role demands. Presently, even though the topic of WLB issues among female entrepreneurs commands urgent attention, studies pertaining to the WLB of entrepreneurial women in India are extremely scarce (Mathew & Panchanatham, 2009a). In this context, the current work is a step towards analysing the WLB issues confronted by the women entrepreneurs of South India. To accomplish this aim, the paper incorporates an extensive literature review to identify gaps in the field of research into female entrepreneurship, followed by a discussion of our study's major objectives; methodology, involving various statistical analyses and the development of a psychometric instrument to measure WLB issues, findings, managerial implications and limitations. The paper concludes with ideas for future studies and a brief conclusion.

REVIEW OF LITERATURE

A close and critical analysis reveals that women entrepreneurs have been making a significant impact in all segments of the economy in such developed nations as Canada, the United Kingdom, Germany, Australia and the United States. Additionally, a good number of studies regarding the entrepreneurial initiatives of women have been reported worldwide (Key, Gunterberg, Holz, & Wolter, 2003; CIBC, 2004; Jahanshashi, Pitamber, & Nawaser, 2010). However, the situation prevailing in developing and underdeveloped nations is not as conducive to female entrepreneurship. Amha and Ademassie (2004) believe that more than half of all women entrepreneurs in Ethiopia face gender-related challenges to establishing, operating and expanding their entrepreneurial activities. In Turkey, female entrepreneurship has been limited by factors including patriarchal beliefs, traditional gender roles, a lack of education and a lack of experience in the labour force (OECD, 2004). Even in the case of South Africa, the opportunity for entrepreneurial activity is reportedly higher for men than for women (Hendricks, 2005). Meanwhile, in Bangladesh, even though women entrepreneurs constitute less than 10% of the total, a new female entrepreneurial class has arisen, taking on the challenge to work in a male-dominated, competitive and complex economic and business environment (Hossain, 2007).

A comprehensive survey of the literature shows that specific studies pertaining to the WLB issues of women entrepreneurs are very few. The only available reports on the issue, which are mainly from developed nations, indicate that women entrepreneurs of these nations enjoy a comparatively good WLB (Key et al., 2003; CIBC, 2004; Carter & Eleanor, 2006; Godwyn, 2009). On the other hand, no serious efforts have been made to analyse the WLB issues faced by women entrepreneurs of developing and underdeveloped countries where societal etiquette, male dominance and deep-rooted discriminatory socio-cultural values and traditions (UNIDO, 2001) persist. The limited studies available from India on women entrepreneurship (Khanka, 1998; Mann & Phukan, 1998; Anitha & Laksmisha, 1999) either concentrate on the reasons for female emancipation or highlight the contributions of the few successful women entrepreneurs. Meanwhile, Dileepkumar (2006) has elaborated on some of the issues faced by entrepreneurial women, such as a shortage of finances, male dominance, limited mobility, a lack of education, required motherly duties and a lack of achievement motivation. According to Rizvi and Gupta (2009), government-sponsored development activities have benefited only a small section of women, namely the urban middle class. This may be primarily due to their higher level of education, access to information and family support. Previously, the female workforce in India was mainly employed in non-managerial, subordinate or low-profile positions. Now, they occupy almost all categories of positions in the workplace. These changes in work culture have added to women's duties and responsibilities to their family as well as to society (Mathew & Panchanatham 2009a; 2009b). Despite this newfound work culture, and even though more and more women are joining the workforce, women in entrepreneurial roles are limited. The probable reasons for this phenomenon are the conflicts between competing work demands and personal and family needs. According to Peeters, Montgomery, Bakker and Schaufeli (2005), pressures from the job and family domains are often incompatible, giving rise to imbalance. Therefore, the concept of WLB, along with its implications, is a core issue that must be investigated as more women become entrepreneurs in Indian society. The gender analysis of entrepreneurship is incomplete without an empirical analysis of duality of roles by women entrepreneurs. There is a conclusive proof that women entrepreneurs are heavily characterized by duality of roles. Acknowledging the effects of role conflict is not meant to reinforce the notion that women invariably adopt wife/partner/family commitments. For some women, careers/business or family are viewed as distinct alternatives and they make a choice between the two. For others however, there are attempts to combine both, which for many women leads to conflict since the larger part of child – care and house – keeping still fall to women. Women in business generally see themselves as fulfilling a number of different roles in their lives, for example, partner/wife, businesswomen, mother, housekeeper/manger, joint breadwinner, sole breadwinner, and so on.

Conflict experienced does not seem to depend on whether women are married or not, or whether they have children or not: more conflict is experienced by women with children still living at home, than those without children or those with children who are no longer living at home (Simpson and Pearson: 1989). The hopes that entrepreneurship may be a means of overcoming gender subordination (Goffee and Scase: 1985) seems misplaced. Women may certainly escape some of the confines of the formal labour market but these are replaced with a range of problems, which are gender related. The evidence does not suggest that conjugal roles are being renegotiated-women are still performing the 'double shift.' Women returning to work after some break for child-rearing frequently suffer downward mobility, or find the demands of formal employment too inflexible to accommodate their domestic role (Brotherton et al.: 1987a). Occupational segregation, under-representation in upper level management positions, and expectations about family roles may restrict women to certain industrial sector, as well as affect motivations and goals for their business (Aldrich: 1989). The degree to which these structural dimensions affect women entrepreneurs depends greatly on the county context. In particular, the perceived acceptability of women's participation in entrepreneurship varies from country to country, relative to the expectations and cultural norms for women in that society. For example, in South America belief in "male machismo" and expectations that women's primary responsibilities are childcare and domestic duties creates a barrier to venture creation and subsequent venture performance (Sekarun and Leong: 1992). Divergence between women and men comes in the form of problems that women experience which men do not. Gender poses an additional dimension with which women have to contend with not being taken seriously as a women (Brotherton et al.: 1987a; Carter and Cannon: 1988; Hisrich: 1986; Hisrich and O'Brien: 1981; Simpson and Pearson: 1989; and Stevenson: 1983) intimidation, lack of confidence (Stevenson: 1983); role conflict (competing demands of 'family' and business: Simpson and Pearson: 1989; Stevenson: 1983); lack of support (Simpson and Pearson: 1989; and Stevenson: 1983). In the context of women's experience in education, employment and in terms of role expectations, the additional set of problems seems predictable. Not being taken seriously may take many forms – from less than positive attitudes of family to downright negative and hostile attitudes from financial institutions (Carter and Cannon: 1988). Whatever from it takes, women receive little support. These experiences tend to undermine women's confidence and credibility and it requires extra effort from women to overcome them. Earning credibility is something women seem to have to work hard at (as in the formal labour market) – whether it be with colleagues, customers or employees. There are clear arguments for precisely this sort of study to be undertaken, concentrating on strategies that may help survival and ultimately success, as well as those which may help women and men overcome the varied range of problems faced in business ownership. Concern with the strategies women use to overcome problems they face has received more recent attention by the construction of case studies of women business owners/managers (Carter and Cannon: 1988). The problems are varied: They have to work hard to earn credibility with business colleagues, customers and employees; they are often undercapitalized; they frequently experience hostile and negative attitudes from sources of finance; they often experience role conflict and had to cope with less than supportive family attitudes. The restrictions of educational and employment experiences have already been documented. How consistent is this pattern of 'limitation' in relation to society's preparation of women for entrepreneurship? Child – rearing practices continue to transmit the dominant ideology (Grabruker: 1989; and Hunt: 1983). We are still raising little girls to be little girls and little boys to be little boys. Post-school and 'pre-labour' experiences are consistent too. In this regard, Cockburn (1987) observes: "there is not one factor tending gender – conformity in the youth training scheme but many, and that they are interrelated and unlikely to be corrected by superficial measures... the sexual discrimination that occurs is passive rather than active and in many cases it is unconscious. There is however clearly some conscious and active sex -specific selection going on in recruitment." According to Dinis (1999), when women intend to create their own employment they cumulate the structural difficulties of very small enterprises with specific disadvantages of their feminine condition. In general, women can not devote as much time and energy to the business as men because women maintain the weight of domestic activities. In regions with specific problems-rural areas, ill – favoured urban zones, less developed regions or in industrial reconversion the inequalities are still more marked. The isolation, the under-qualification, the cumulation of social and economic difficulties are propitious to reinforce marginalization. Some theoretical works suggest that women are confronted with situational and dispositional obstacles which prevent them from starting and/or growing their businesses (Liou and Aldrich: 1995; Fisher et al.: 1993). Brush (1997) found females encounter the following four obstacles: being taken seriously; child and dependent care; growth and expansion capital; and entrepreneurial education and training. This study also found that women entrepreneurs have three opportunities: technology; management style; and employee policies. Harper (1996) refers to the lack of exposition to information as an important barrier of women to create and expand their business. This is probably due to the accumulation of domestic and agricultural, tasks which rural women are involved I rural areas (Dollinger: 1985). Furthermore, Harper (1996) points out that lack of time is not an important factor and poverty per se, is not a "pushing" factor to entrepreneurship. Awareness has to be crated and change has to be perceived as something possible.

RESEARCH GAP

In the nation like India, we talk, debate, and frame policies about the gender equalities. At this point of time we need to check whether we are following the policies and strategies which we framed. According to the review of literature presented above most of the researchers analyzed the work life balance and issues in managing the dual role i.e. as entrepreneur and as a caretaker but no researcher tried to know why the entrepreneurship is not a problem for men and why only dual role problems and social life arises for female entrepreneurs. Based on this, there is a gap in the research on comparative analysis of male and female entrepreneurs on work life balance and dual role problems. Therefore the researcher tried to fill this gap by conducting the research based on the following objective.

OBJECTIVES OF THE STUDY

1. To understand and compare the dual role or family life problems of both male and female entrepreneurs and
2. To analyze and compare the social life problems of male and female entrepreneurs.

METHODOLOGY OF THE STUDY

To fulfill the above objectives, the researcher conducted the survey in Mysore by adopting he snapshot survey and served the structured questionnaire to 233 respondents comprising of 111 male and 122 female entrepreneurs and the researcher also adopted the face-to-face interview techniques wherever required. To analyze the data culled out, the simple statistics were used like mean and standard deviation and Person correlation was used to know the relativity of the problem faced by both the male and female entrepreneurs.

ANALYSIS AND INTERPRETATION

(1) DUAL ROLE OR FAMILY LIFE PROBLEMS

Table – 1 presents the perception of respondents on family life problems, which include six variables. It was found that the female respondents perceived that they were facing higher family life problems in running their enterprise than male respondents with the overall mean values of 3.18 and 2.78 respectively. The perception of female respondents on these problems was found to be densely distributed with higher intensity of these problems when compared to lower intensity with thin distribution in case of male respondents. It was also evidenced that the female respondents perceived higher problems in managing dual role by assigning the mean value of 3.78 as against male respondents assigning the mean value of 2.93 only for the same problem and the perception of female respondents on these problems was found to be densely distributed with higher intensity of these problems when compared to lower intensity with thin distribution in case of male respondents. Whereas, male respondents perceived that they had highest problem with unrewarding experience with the mean value of 3.37. The second weightage was given by female respondents to the problems of household work and unrewarding experience by assigning the mean values of 3.39 each, but the male respondents assigned lower values to these variables.

TABLE – 1: DUAL ROLE OR FAMILY LIFE PROBLEMS

Sl. No	Variable	Male		Female	
		MV	SD	MV	SD
(1)	Managing dual role (as a married women/men and as a entrepreneur)	2.93	1.90	3.78	1.26
(2)	Recognition from relatives/friends	2.33	1.10	2.42	1.04
(3)	Disturbance in family life	2.79	1.34	3.01	1.19
(4)	Cooperation from family members	2.65	1.26	3.08	1.29
(5)	Household work	2.61	1.50	3.39	1.31
(6)	Unrewarding experience	3.37	1.28	3.39	1.29
	Total	2.78	1.39	3.18	1.23

r = 0.658

Source: Field Survey.

The female respondents perceived and gave next weightage to problem of cooperation from family members assigning the mean value of 3.08, whereas male respondents assigned mean valued of 2.65 only for the problem. There was a moderate correlation of perception on family problems with the value of 0.658. To conclude, female respondents had higher family life problems in running their businesses than the male respondents and the perception priorities on these problems were found to be moderately related.

(2) SOCIAL LIFE PROBLEMS

Table – 2 highlights the perception of respondents on social life problems in running their businesses, which include six variables. The perception of female respondents on social life problems was found to be higher with the overall mean value of 2.71, as against the male respondents assigning the overall mean value of 2.41. The perception of female respondents on these problems was found to be densely distributed with the standard deviation of 1.05 than the thin distribution in case of male respondents with the standard deviation of 1.15. The female respondents perceived that they had higher human relation problems than male respondents and the respective mean values stood at 3.78 and 2.40. The male respondents perceived that they had higher frustration level than female respondents with the mean values of 2.77 and 2.62 respectively. The perception of male respondents on this variable was found to be densely distributed with the standard deviation of 0.98 than thin distribution in case of female respondents at the standard deviation of 1.08. The female respondents gave second rank to the problem of recognition from neighbors and the mean value stood at 2.55, whereas male respondents assigned the mean value of 2.07 for same problem. The male respondents assigned second rank to 'social status' with the mean value of 2.57 whereas, the female respondents assigned the mean value of 2.48 for the same problem and the standard deviation was highly concentrated in female respondents at 0.97 than male respondents at 1.22. It was evidenced that the female respondents perceived that they were facing higher 'social harassment' than male respondents and the mean values stood at 2.52 and 2.33 respectively. Both male and female respondents gave least importance to 'socialization with public' with the mean values of 2.35 and 2.33 respectively. The perception of female respondents on this problem was found to be densely distributed with the standard deviation of 0.94 as against thin distribution in case of male respondents with the standard deviation of 1.12. The relative intensity of these social life problem was found to be substantially different between male and female respondents and there was not relationship in the perceptions. Hence there was no correlation between male and female respondents in prioritizing social problems and the value stood at 0.026. To sum up, the female respondents perceived that they were facing higher social life problems in managing their enterprises than male respondents and the weightages given by both the groups for the six variables did not have any association and the correlation coefficient stood at 0.026.

TABLE – 2: SOCIAL LIFE PROBLEMS

Sl. No	Variable	Male		Female	
		MV	SD	MV	SD
(1)	Social status	2.57	1.22	2.48	0.97
(2)	Recognition from neighbors	2.07	1.06	2.55	1.03
(3)	Socialization with public	2.35	1.12	2.33	0.94
(4)	Problems of human relation	2.40	1.27	3.78	1.10
(5)	Social harassment	2.33	1.29	2.52	1.20
(6)	Frustration level	2.77	0.98	2.62	1.08
	Total	2.41	1.15	2.71	1.05

r = 0.026

Source: Field Survey.

CONCLUSION

To conclude, though we talk, debate and frame policies on gender equalities, from the above discussion it is clear that women are facing more family life problems and social life problems than men. This is because still we need to go long way to accept the changes happening around the women. As everyone knows if a woman wants to become independent, she needs the support of family and the society. Until and unless the mindset of the family members and the society changes towards the women entrepreneurs' ability, she should continue her life along with the problems like dual role, social harassment, work stress, etc. whatever is her position. The women entrepreneurs have high entrepreneurial endowment levels along with high degree of problems, if we make use of her endowment levels in a right way the economic condition of family, society and the nation will improve.

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DETERMINANTS OF SESAME TRADERS' WILLINGNESS TO SUSTAIN THEIR TRADING THROUGH ETHIOPIAN COMMODITY EXCHANGE (ECX) IN ETHIOPIA

ASMELASH ADDIS CHEKOL
LECTURER
MEKELLE UNIVERSITY
MEKELLE

DR. TEFATSION SAHLU DESTA
ASSOCIATE PROFESSOR
MEKELLE UNIVERSITY
MEKELLE

RAHWA GEBRE TESFAHUNEY
LECTURER
MEKELLE UNIVERSITY
MEKELLE

ABSTRACT

The objective of this study was to identify the main determinants of sesame trader's willingness to sustain their trading through Ethiopian Commodity Exchange (ECX). For this purpose probit model was employed to identify the effect of explanatory variables over the dependent variable. A cross-sectional survey questionnaires and focus group discussion were conducted to collect a primary data, and literatures were also used to augment the primary data. The data was collected from a sample of 87 Ethiopian commodity exchange participants selected through random sampling. The data was analyzed by probit regression analysis. The probit regression result revealed that formal education, working capital, number of people consulted at main market pre day, number of people consulted at other markets per market day, number of employees participating in information collection, purchase time (in days) found to be positively affect traders' willingness to sustain their trading through ECX. Whereas number of languages spoken and level of satisfaction with the grading system have been found to negatively affect traders' willingness to sustain their trading through the ECX. Recommendation to improve infrastructure such as lighting and internet connection problem and ECX should make awareness creation activity through Brushers, Medias, as well as conducting conferences. However, one reason not captured on this survey is the greater likelihood of being taxed when selling through the ECX. Because of taxation is a sensitive issue for traders.

KEYWORDS

Assembler, ECX, Intermediary, Transaction, Willingness.

1. INTRODUCTION

The Ethiopia Commodity Exchange (ECX) commenced trading operations in April 2008. ECX has invited membership of the agricultural and trade industry. ECX's establishment is founded on Proclamation No. 550/2007. This proclamation mandates ECX to develop its own rules for the governance of its various operations. Further, the Ethiopia Commodity Exchange Authority (ECEA) a regulatory body of the ECX was established by Proclamation 551/2007. The Ethiopia Commodity Exchange (ECX) is a new initiative for Ethiopia and the first of its kind in Africa. The vision of ECX is to revolutionize Ethiopia's tradition bound agriculture through creating a new marketplace that serves all market actors, from farmers to traders to processors to exporters to consumers. The ECX is a unique partnership of market actors, the Members of the Exchange, and its main promoter, the Government of Ethiopia. ECX represents the future of Ethiopia, bringing integrity, security, and efficiency to the market. ECX creates opportunities for unparalleled growth in the commodity sector and linked industries, such as transport and logistics, banking and financial services, and others.

The Ethiopian Commodity Exchange was started to benefit and modernize the way Ethiopia was trading its most valuable assets, its commodities. Ethiopia needed a change from the traditional means of trading to better support the needs of all those involved in the trading and production. Before ECX was established, agricultural markets in Ethiopia had been characterized by high costs and high risks of transacting, forcing much of Ethiopia into global isolation. With only one third of output reaching the market, commodity buyers and sellers tended to trade only with those they knew, to avoid the risk of being cheated or default. Trade is done on the basis of visual inspection because there was no assurance of product quality or quantity, this drove up market costs, leading to high consumer prices. For their part, small-scale farmers, who produce 95 percent of Ethiopia's output, came to market with little information and are at the mercy of merchants in the nearest and only market they, know, unable to negotiate better prices or reduce their market risk. ECX is developing a new method of exchange and a safer one for all who trade on it.

In the myth of perfect market hypothesis, with perfect information, perfect mobility of factors of production, large number of buyers and sellers, free entry and exit and fixed technology, market is the only institution that is needed to attain Pareto optimal or the best possible resource allocation (Stiglitz, 2001).

In one side, since some developing economies markets are highly imperfect and large number of them are missing (Stiglitz, 2001; Sadoulet & Janvry, 1995), the mathematically consistent neoclassical conclusion, which assumes market allocation is the best possible allocation, is found to be in shaky ground. In other side, empirical and historical observation will make it clear that market based institutions are much better than other alternative institutions observed in human history. It is clear by now that market may not be perfect, but it is functional several factors.

An organized commodity exchange has a long history in the world. Grain traders in Japan began experimenting with the idea in 1730, and the Chicago Board of Trade (CBOT) and the London Metal Exchange successfully launched their operations to trade commodity in 1864 and 1877, respectively. The main rationale for the establishment of this exchange was the reduction of transaction costs and organizing a physical market place where buyers and sellers could be sure of finding a ready market (Talane, 2005).

Since 2004, more and more countries have launched commodity exchanges. Notable examples include the African Commodity Exchange (ACE) in Malawi established in 2004, Nigeria's exchange established in 2006, a new Zambian exchange (ZAMACE) established in 2007, and the much-publicized Ethiopian Commodity Exchange (ECX) established in 2008 (Rashid, Winter-Nelson, & Garcia, 2010).

The Ethiopian Commodity Exchange (ECX) was established to revolutionize Ethiopian agriculture and transform the economy through a dynamic, efficient and transparent marketing system. In order to stay competitive and cope up with the world market, should Properly implemented and regulated, commodity exchanges can contribute greatly to the achievement of a country's economic and developmental goals and strengthen the bargaining power of participants. In addition to that identifying what affects traders' interest in trading via ECX factors such as transaction costs, product grading system, infrastructures and others

should be given due attention so that to contribute knowledge or understandings on how the country can use its potential on this sector and bring foreign currency.

Not only Infrastructure problems are market constraints but also a study by Gabre-madhin (2001) and Bekel (2002) on Ethiopia grain market more ever indicated that importance of transaction cost which are constraint to trade. This costs which are distinct from physical marketing cost are costs incurred in conducting or coordinating market transaction between traders such as costs of looking for screening a trade partner, the costs of searching information on price qualities and quantities of product the costs of negotiating contract the costs of following -up contract performance, the costs incurred in enforcing contract. Since the costs are difficult and complex to identify and to measure they are usually ignored nevertheless they provide powerful explanations for the existence of missing market or market failure.

Despite the recent focus on the importance of markets for economic growth, very little is known about how transaction costs influence the emergence of market institutions. Even less is known about the nature and extent of these transaction costs, which are generally assumed to be fixed across market participants.

Besides large amount of literature on market performance following market reforms in sub-Saharan Africa, relatively little attention has been given to the role of market institutions in supporting commodity exchange (Barrett, 1997; Bryceson, 1993; Fafchamps, 1996; Gebremeskel, Jayne, & Shaffer, 1998). Even less has been given to understanding how particular institutions effectively reduce transaction costs and what determines trader's behavior to trade through market institution.

Ethiopia is the third world exporter of sesame seed after India and Sudan. Oilseeds are the third important crop in acreage in Ethiopia after cereals and pulses (Wijnands, Biersteker, & VanLoo, 2009). The major sesame growing areas are located in the Northwest; in Humera area in Tigray near the border with Sudan and Eritrea; in Metema in North Gondar and in Wollo area of Amhara region, Chanka area in Wollega of Oromiya, and in Pawi area in Benshangul Gumuz region.

ECX was opened for sesame trade in late 2009. In sesame trading millions birr's are circulated in the market and millions people involve in cropping and trading sesame in Ethiopia. So it needs a careful attention and follow-up because if once collapses millions of Ethiopian farmers and traders will be injured. In this study the researcher would like to assess the main determinants traders' willingness for sesame traders to sustain trade through ECX.

2. RELATED LITERATURE REVIEW

2.1. INSTITUTIONS FACILITATING EXCHANGES

According to Commons (1931), institution is a collective action in control, liberation and proliferation of an individual action. Commons argued that the control of the acts of one individual always results or is intended to result in a gain or loss to another or other individuals. The collective control takes the form of taboo or prohibition of some acts like intervention, encroachment and trespass. This prohibition form an economic status of liberty for the person thus made immune while individual actions is explained in terms of transactions instead of either individual behavior or the "exchange" of commodities. Furthermore, Commons believed that all collective acts establish relations of rights and duties; what is required of individuals to perform, avoid and forebear; economic status of individual such as security, conformity, liberty and exposure.

The common principles running through all of them are the principle of scarcity, efficiency, futurity, the working rule of collective action and the limiting and complementary factors of economic theory. In this tradition, institution is regarded as a supplementary to market where market cannot function and in a world of imperfect information institution carry information about the expected behavior of other agents to better coordinate economic activities.

North (1990) has forwarded a comprehensive definition of institutions based on his work in new institutional economic framework. He has defined institution as the set of "rules of the game" in a given society. These "rule of the game" consist of both formal rules like constitution, law, property right and informal constraint like sanctions, taboos, customs, traditions, and codes of conduct). More formally, North described institutions as constraint humans impose on their activities with each other to structure their interaction and therefore defines the incentives that determine the choice that they make that shape the performance of economy and society over time. Thus, institutional constraints include both what individuals are not allowed to do and, sometimes, under what conditions some individuals are permitted to undertake certain activities.

Schmid (2004), on the other hand, qualified this definition by arguing that institutions are more than just the rules of the game providing limits or constraints. They also enable individual to do what they cannot do alone. They also shape beliefs and choices and provide clues to uncalculated action. However, North (1990) emphasize that the extent to which there exist similarity between the objectives of the institutional constraints and the choice individuals make in that institutional setting relies on the effectiveness of enforcement. That is whether the strategy pay off obviously depends on the effectiveness of monitoring and the severity of punishment.

The cost of transacting arises because information is costly and held asymmetrically by the parties to exchange. As a result, institutions emerge to minimize these transaction costs and to facilitate market exchange (North, 1990). In the same token, a set of political and economic institutions that provide low-cost transacting makes possible the efficient factor and product markets underlying economic growth (North, 1992). In contrary, he argued that the institutions created by players to structure human interaction results in some degree of imperfection of the market. According to him in the cases where the institutional framework is more conducive to capturing the gains from trade, there will be encouragement to cheat, free ride, and so on that will in turn lead to market imperfections. However, institutions provide the incentive structure of an economy; as that structure grows, it shapes the trend of economic change towards growth, stagnation, or decline (North, 1991).

It is a well known fact that market transactions, especially in developing countries, are often rooted in long-term, personalized relationship (Granovetter 1985; Palaskas & Harriss-White, 1993). Personalized exchanges arise in reaction to commitment failures, in which the risk of contract infringement or opportunistic behavior is high, resulting from the lack of market information, ineffective regulation, and the lack of legal enforcement mechanism. Institution builds trust and promotes reputations and the lack of legal enforcement mechanism. Institution builds trust and promotes reputations and social capital, such as trade association, solidarity network, and groups that build up ethnic or religious ties, arise to avoid commitment failure (Fafchamps 1996; Greif, 1993; Platteau, 1994a).

Historically, institutions have emerged in various contexts to facilitate anonymous trade. North (1992) argued that the success stories of economic history describe institutional innovations that have lowered the costs of transacting and allowed more of the gains from trade to be realized, thereby allowing the expansion of markets.

Historical institutional analysis of pre-modern trade in medieval Europe by North (1990) showed that an institution known as the Law Merchant enabled impersonal exchange to occur in 12th- and 13th-century Champagne fairs. The Law Merchant underwent trade through a reputation mechanism that laid aside information about traders' past behavior and sanctioned violators of the commercial code. Greif (1993) viewed the Maghribi traders' coalition formed in the 11th century as a means of overcoming the commitment problem intrinsic to long-distance trade.

Clay (1993) reported that coalitions of long-distance traders in 19th-century Mexican California encourage honest exchange through information sharing and punishing of cheaters. In contrast, Platteau (1994a; 1994b) argued that decentralized arrangements based on reputation are not enough to ensure honest behavior and that private and public-order institution are essential to generate the social conditions necessary for markets to operate.

2.2. COMMODITY EXCHANGE AS AN INTEGRATED SOLUTION

A commodity exchange can have different characteristics as observed in various countries. However, these observations are well summarized in United Nations Conference on Trade and Development (UNCTAD) document as follows:

"Commodity exchanges are defined in many distinct ways. For several observers in developed countries, a commodity exchange is a podium for the trade in futures contracts...any other form of trade would not categorize. For Turkish commodity exchanges could be a place where transaction are registered, for tax purpose – no actual trade needs to take place on such exchanges. In southern or Latin America, commodity exchanges can be a place where credits from institutional investors to producers are facilitated – spot or future trade is not the object. In many countries in Eastern Europe, commodity exchanges are like an

auction floor, where anyone can sell and buy whatever commodities or manufactured products available to them in some instances traders have established institutions that they refer to as commodity exchanges, which basically act as trading or brokerage processes" (UNCTAD, 2005).

As workable definition, the definition given by UNCTAD and WB (1993) will be considered. Accordingly they define commodity exchange as organized or semi organized meeting place where various goods are bought and sold. This could include physical or on the spot commodities, future exchange contracts or financial instrument. Or we can consider UNCTAD (2007) definition as "commodity exchange is a market in which multiple buyers and sellers trade commodity-linked contracts on the basis of rules and procedures laid down by the exchanges." Alternatively we can consider Gabre-Madhin and Goggin (2005) definition as "commodity exchange is any organized market places where trades, with or without the presence of the actual commodities, is channeled via a single mechanisms that allow for maximum effective competition among buyers and among sellers."

Commodity exchange develop grade and standard that has to be used by the involved traders. Clearly defining grades and standards, the exchange will facilitate the inspection process, thus, avoiding risk of buying poor quality grain for traders (UNCTAD, 2005). Because grade and standards are public goods like any information, it is very cost effective, if they are supplied by central institution, like commodity exchange. Once grains are inspected for their quality and appropriate quality tag is assigned to them, they will immediately be stored up in authorized and sophisticated warehouses to reduce storage cost and crop damage (Gabre-Madhin et al., 2003; UNCTD, 2005). Due to existence of dimensional economics and use of modern storage facility, there will be significant reduction in storage cost and crop spoilage, in short reduction in transaction costs of storage.

Depositing their grain in warehouse, farmers and trades will get warehouse receipts (Gabre-Madhin & Goggin, 2005). The receipt will be used for exchange specification within the commodity exchange or outside the commodity exchange or it can be used as collateral for loan (Gabre-Madhin et al., 2003). The importance of quantity and quality of grain specified in warehouse receipt as base of exchange will facilitate the transaction process (Gabre-Madhin et al., 2003; Gabre-Madhin & Goggin, 2005; Rutten, 2001). The above fact coupled with the fact that exchange within commodity exchange is done on standardized contracts, there will be very low transaction costs, in general, and very low searching costs, in particular (Gabre-Madhin et al., 2003; Gabre-Madhin & Goggin, 2005, UNCTAD, 1998). Moreover the receipt can be used as collateral to have flexible access to credit needed by traders (Gabre-Madhin & Goggin, 2005). Taking into account the price risk involved in holding grain as collaterals, loans by financial institutions will be provided in discount bases, though (Gabre-Madhin et al., 2003).

This system in addition to its provision of flexible access of credit to traders can also solve the stress sell that can be faced by farmers. If farmers expect price increase in future which is greater than the storage and interest cost of using warehouse based loan, they can deposit their grain with in warehouse at much lower cost and can borrow from banks to cover their short term financial needs. Means warehouse receipt system will reduce both stress sell faced by farmers and will improve financial flexibility of traders. At the same time better storage facility will be provided to farmers (Gabre-Madhin et al., 2003).

The most important advantage of commodity exchange is related to its institutions which enable the development of macro trust without using the less efficient, less predictable and costly legal system. These institutions are necessary margin, limit in daily variability of price, minimum deposit requirement and mark to market settlement (Gabre-Madhin et al., 2003; UNCTAD, 1998). The focus at this time is on required margin and control on daily price variability.

To stabilize the market and to give traders enough time to process information in face of group or collective thinking, this is usually observed in exchanges (Smith, 1991). Commodity exchange will normally limit the maximum amount of change allowed in price of grain in one day. If grain price show dramatic decline or rise, which is above acceptable limit, the commodity exchange will stop trading and will start it next work day. Fortunately, this has positive effect on reducing the risk exposed by commodity exchange. If the maximum change in price that can be allowed in one day is, say, birr 200 and trade transaction will take 1 day to complete, commodity exchange can demand required margin of, say, birr 300. If a trader after depositing 300 is able to buy Teff for birr 1000; but before the transaction is completed Teff price turn out to be birr 800 he/she can easily breach contract to gain birr 200. In such situations the early contract will end up cancelled, the grain will be sold at 800 birr and 200 birr from the deposit will be used to pay the seller birr 1000. By infringing or breaching contract the defaulting party will not be able to gain but will lose future right to use commodity exchange services (Smith, 1991).

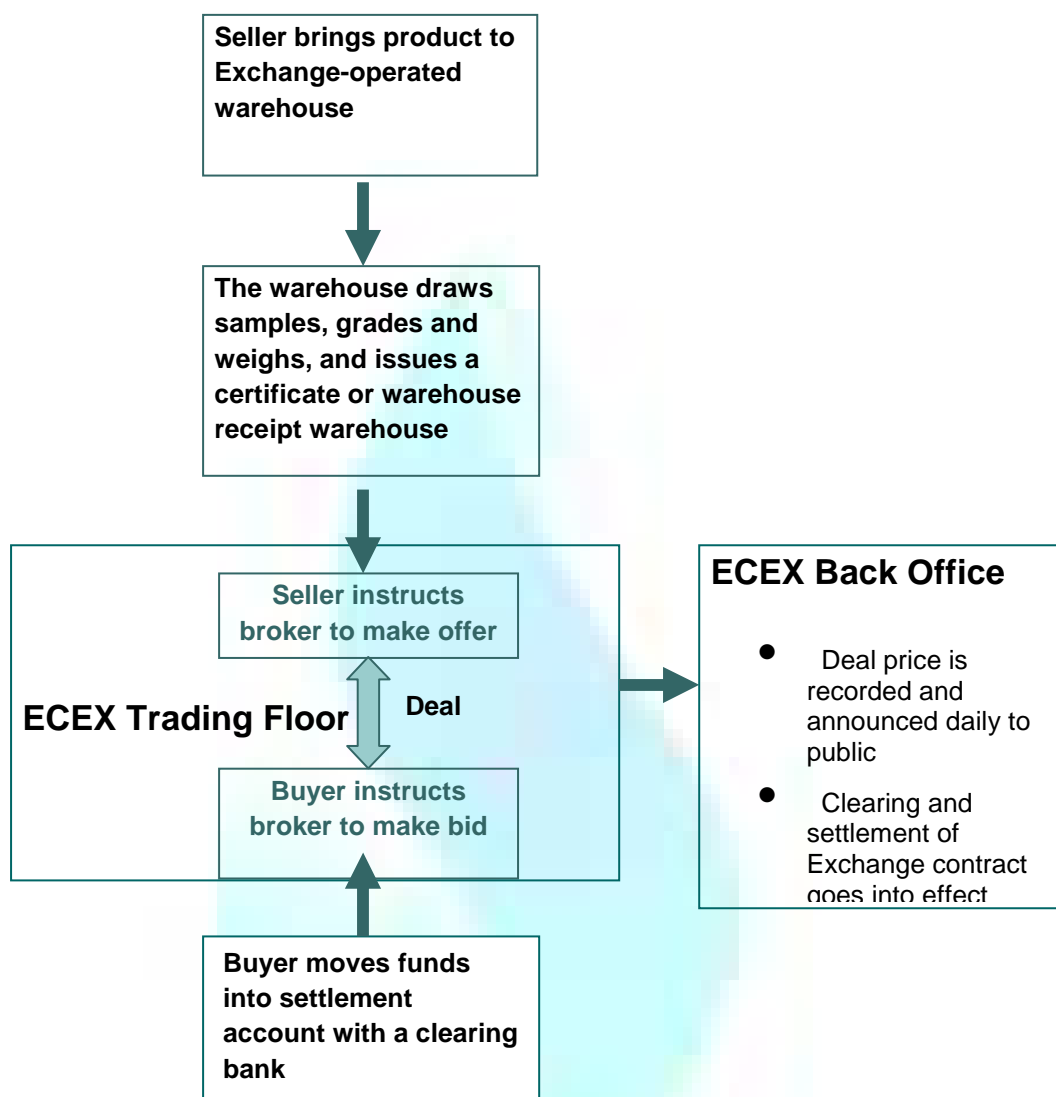
Assuming commodity exchange has strong advantage over the next best alternative, the breaching trader will have to face high transaction cost which can push him out of market in face of severe competition. In brief within commodity exchanges it is at best interest of participating bodies to honor contract. Anyone who wants to buy or sell with in commodity exchange can buy and sell without belonging to specific network or social group. In short it will build macro level social capital. Within macro and micro level social capital you are guilty until proven innocent, but with in macro level social capital you are innocent until proven guilty.

Farther cohesion in to the system can be introduced by limiting trade between chair owner brokers in the exchange, who buy and sell grain for themselves and as agent of others (Gabre-Madhin & Goggin, 2005). Brokers who own share or chair within the exchange are ultimate owners of the commodity exchanges. Consequently, profitability and honesty of the commodity exchange is a very important corner stone for getting fair return on their investment (Lovelace, 1998).



2.3. OVER VIEW OF HOW ETHIOPIAN COMMODITY EXCHANGE WORKS

FIGURE 1: TRADING SYSTEM OF ETHIOPIAN COMMODITY EXCHANGES



Source: Gabre-Madhin (2006)

According to Gabre-Madhin (2006), it is understood that all orders to buy and sell on the Exchange are made by Members, who either trade for themselves or on behalf of others. Because members are liable for their transactions, membership is limited and is on the basis of very clear and transparent criteria, including trustworthiness, performance, capital adequacy, and willingness and continuous ability to follow the Exchange rules.

To trade on the Exchange, the owner of a physical product must bring the product to a certified Exchange warehouse, where it is sampled, graded, weighed, and issued a certificate. That certificate represents the identity of the commodity, and is the basis for a transaction on the Exchange. The certificate must be safe from fraud. One way to reduce possible fraud is through an electronic certificate, which is directly transmitted to the Exchange. In addition, samples of the product are retained by three parties: the seller, the warehouse, and the Exchange, in the event of dispute on quality. The product itself, once certified, must be secure and protected against adulteration and it must not disappear. One way to reduce this risk is to go beyond issuing a product certificate to a warehouse receipt system, which requires that the product be physically stored in a bonded Exchange warehouse. A warehouse receipt is thus effectively legal title to the product. In this way, the role of the warehouse becomes analogous to a bank, crediting and debiting deposits of an asset which, in this case, is a commodity asset, rather than money (Gabre-Madhin, 2006).

Once the warehouse receipt is issued, the seller can proceed to make an offer to sell a certain number of contracts (at a standard lot size and grade) on the Exchange. Because contract terms are standard, the key parameters are the price, delivery time, and location. Before the seller makes the offer, the Exchange will have received directly from the warehouse (if possible electronically) the receipt and the sample. The seller makes the offer using through a broker who is either working on the seller's Member account, if the seller is a member, or on the account of a Member who is offering intermediary services to the seller. For example, if a cooperative union who is not a member of the exchange wishes to sell a given amount of maize on the Exchange, it would deposit the grain in an Exchange warehouse and transmit a sell order to a broker, who is part of a brokerage firm that is an Exchange Member (Gabre-Madhin, 2006).

On the other side of the transaction, a buyer similarly places a bid order through a broker. Analogous to the seller who made deposited the commodity in an Exchange warehouse before the sell order, the buyer must move funds into what is known as a settlement account before submitting a buy order. The amount of money that is placed in the settlement account can either be a margin, or percentage of the total transaction value, or the total. This depends on whether the contract is for immediate delivery (spot) or for later delivery (future) Gabre-Madhin (2006).

2.4. EMPIRICAL REVIEW

The limited empirical support on the nature and importance of transaction costs is due to conceptual and measurement complexity (Stall et al., 1997). For instance, when transaction costs are sufficiently high in order to prevent exchanges from occurring, ultimately, these costs cannot be observed because no transaction took place. It follows that transaction costs of observed transactions are generally different from prohibitive transaction costs (Goetz, 1995).

However, Gabre-Madhin (2001 b) has estimated empirically the transaction cost for grain traders under the normal trading practices in terms of search time, cost of labor time invested in search, blocked up working capital in the form of grain for the time needed to search, and the number of trusted contact (trader's social capital).

In face of serious lack of adequate information and lack of proper grade and standards, the search process between buyers and sellers will be very costly. Note that it is not only about finding a buyer or seller, but to find a buyer or seller with right price, quantity and quality. Under imperfect information and lack of clearly defined grade and standards, the search process will be very sluggish and very costly. This will result on high search cost or high transaction cost (Gabre-Madhin, 2001a).

The problems observed in grain trade are related to high transaction cost which can result on dysfunctional and missing markets. High transaction cost can result from one or many of the following problems observed in developing economies market:

- Lack of appropriate grades and standards (Fafchamps & Minten, 1999a, 1999b; Gabre-Madhin, 2001b; Gabre-Madhin et al., 2003)
- Lack of adequate information and high risk (Fafchamps & Minten, 1999a; Gabre-Madhin, 2001b; Gabre-Madhin et al., 2003; Newbery & Stiglitz, 1981; Stiglitz, 2001)
- Lack of access to finance (Barrett, 1997; Fafchamps, 1997a; Gabre-Madhin et al., 2003; Jayne et al., 2002; Johnson et al., 1999; McMillan & Woodruff, 1998)
- Lack of appropriate marketing infrastructure (Bryceson, 1994; Gabre-Madhin, 2001b; Gabre-Madhin et al., 2003; Jayne et al., 2002)
- Inefficient enforcement of contract (Bigsten et al., 1998; Fafchamps, 1996)

While the findings of Mukhebi (1998) Kenyan Agricultural Commodity Exchange faces several constraints that hold up the KACE from the successful accomplishment are ;first, poor quality of produce that farmers deliver combined with the fact that most small-scale farmers find it difficult to deliver in bulk which is ideal for an exchange; and secondly, most of the commodities in Kenya are heavily regulated by boards and are grown and marketed in an environment of under anxiety cooperatives, which are inefficient, mismanaged and have cumbersome internal bureaucracies. And the other major factor recognized in the study was intervention of Kenyan government, in grain markets distorts prices and discourages increased private sector participation in commodity markets.

Mukhebi, Kundu, and Okolla (2007), in their study "linking farmers to market through modern information technology on Kenyan agricultural commodity exchange (KACE)," identified the challenges faced by the (KACE) including poor infrastructure that imposes high transport costs to markets, high costs of mobile phone calls and SMS and small quantities of produce of varying quality offered. Dadi, Negasha, and Franzel (1992) who also studied about "marketing maize and Teff in western Ethiopia" showed that lack of grain standardization results in prices that are difficult to compare. The lack of grades and standards is a key factor in marketing behavior of traders.

In 2001, Gabre-Madhin studied on "Market Institutions, Transaction Costs, and Social Capital in the Ethiopian Grain Market". She found that market institution has great role in reducing transaction cost for traders participating in the market.

Additionally in a survey of grain traders, Gabre-Madhin (2001) found that the infrastructure and services required for grain markets to function effectively was lacking. Traders frequently did not have access to credit, market information, transport, contract enforcement and other vital resources.

Not only Infrastructure problems are market constraints but also a study by Gabre-madhin (2001) and Bekel (2002) on Ethiopia grain market more ever indicated that importance of transaction cost which are constraint to trade. This costs which are which are distinct from physical marketing cost are costs incurred in conducting or coordinating market transaction between traders such as costs of looking for screening a trade partner, the costs of searching information on price qualities and quantities of product the costs of negotiating contract the costs of following -up contract performance, the costs incurred in enforcing contract. Since the costs are difficult and complex to identify and to measure they are usually ignored nevertheless they provide powerful explanations for the existence of missing market or market failure. However, the existence of brokers will have significantly positive impact on reducing the search cost of grain trade (Gabre-Madhin, 2001a, 2001b). Instead of searching each other, number of traders can easily contact small number of brokers; which in turn have to search each other to settle the market. The presence of brokers will not only drive down transaction cost to increase volume of trade, it also has significant positive impact on welfare of the society (Gabre-Madhin, 2001a). Further analysis by Gebre-Madhin (2001b) revealed that 70 percent of traders transact in the Addis Ababa market with brokers, who operate within the bounds of quite formal "rules of the game."

Gebrekiros (2011) found that in controlling dishonest or irresponsible practice by counterparties, intermediaries, banks constraining speculative excess and arbitrage mechanisms for dispute settlements. In addition to the above as the finding of the study found the bank clearing and settlement of the exchange was adequately equipped with technology ,infrastructure and man power in matching up of each buy and sell transaction ,coordination of members and the exchange.

Taddese and fikadu (2010) in their study on stricture conduct and performance for grain trading in Tigray and its impact demand on commodity exchange have provided an insight in understanding factors that contribute for a higher performance of traders to use ECX's service and its cost benefit analyses as well. On their study by using the probit model they found some determinants of trader's willingness to pay ECX service to trade through the ECX. These are education, location traders found, current capital, language spoken, search cost, buying cost as they have a positive significant effect on traders willingness to pay for ECX service where as experience and network in own market has been found as they have negative effect on traders willingness to pay for ECX service.

As per the finding by Alemu and Gerdien (2010) by using a descriptive analysis comparison between the situation before and after the ECX indicates that transaction costs have declined in terms of, the average number of intermediaries each trader used (buying agents, brokers, and selling agents), average number of people consulted and involved to make a transaction per market day (number of people consulted in the main market and in other markets, number of employees involved to collect market information), and time required per transaction (number of trips made to market centers, costs incurred in paying trips and time required to purchase and sale). Similarly, the marketing costs have show reduction after the ECX, which is estimated to decline by about 57% as compared to the situation before the start of the ECX.

Besides, Alemu and Gerdien (2010) by using the probit model identified five determinants of trader's willingness to trade through ECX and these, are demographic factors such as education in years and number of language spoken as they have a positive significant impact on trader's willingness to sustain trade through the ECX. In terms of asset ownership, traders with large amount of current asset tend to be more willing trade through the ECX. Similarly transaction cost related explanatory variables, the number of buying agents the trader works with and perceived change in time required for a transaction with the ECX were found to positively influence traders willingness to continue trade through the ECX.

Likewise research conducted by Alemu et al. (2010) showed that exporters in Ethiopia face several quality problems in terms of quality grading, sampling representation of commodities and adulteration especially by mixing sesame seed of different origin. As per the finding, this has lead to difficulty in setting prices for certain quality grades. Quality grading of the Ethiopian Quality and Standard Authority (EQSA) takes a long time as well as prone to corruption.

According to Mohamed (2011) on his survey study by using the probit model on maize trader's willingness to trade through the ECX, eight variables were found to have significant effect on traders' willingness. These are education in years, working capital, number of people counseled to undertake transaction on other market, number of people involved in collecting price information in own enterprise, time take to find a buyer, time take to find a seller and social capital.

In summary, the study tried to review the variables that were identified by different researchers that affect sesame trader's willingness to sustain trade through ECX. This variables are **demographic** such as education in year, number of language spoken, **asset ownership** such as warehouse ownership, truck ownership, working capital and **transaction cost** related variables such as number of people counseled to undertake transaction on other market, number of people involved in collecting price information in own enterprise, time take to find a buyer, time taken to find a seller. Besides, the study tried to review the level of satisfaction in the grading system of ECX to effect trader's willingness to sustain trade through ECX.

3. STATEMENT OF THE PROBLEM

Following the current hypothesis by Gabre-Madhin (2001) ECX is a monopolized market to address all problems in the green market and to reduce the presences of high transaction cost and market imperfection which are the outcome of the existed market institution in different regions. However, to leave market

participants with no freedom of choice really just replaces previous single channel marketing systems with a new one. The whole idea of a free market is that it is exactly what it says it is by providing participants with the freedom to choose when, where and how they want to buy or sell their commodities.

As per my preliminary study with some traders of sesame currently in Humera and Metema city they are facing several problems to continue trade in Ethiopian commodity market with different reasons. Thus, this research assessed major determinant factors that affect sesame trader's willingness to continue trading through Ethiopian Commodity Exchange (ECX) and tested the hypothesis in light of new institutional economic framework.

4. OBJECTIVES OF THE STUDY

The overall objective of this study was to investigate the major determinants of sesame trader's willingness to sustain trading through Ethiopian Commodity Exchange (ECX). Its specific objectives were:

- 1) To identify main determinants for sesame traders' willingness to sustain their trading through ECX.
- 2) To examine the relationship between traders' willingness to sustain trade through ECX and the factors affecting them.

5. RESEARCH METHODOLOGY

5.1. STUDY DESIGN AND STRATEGY

The study investigated the relationship between variables at a point in time. This research used the cross sectional study design because this study design takes a one-time shot data to analyze the relationship between variables. It has applied the quantitative study to identify the determinants factors and examine their effect on traders' willingness by using probit model.

5.2. DATA TYPE AND SOURCE

Primary (survey) data collected from sesame traders who were trading in the ECX market in order to address the general and specific objectives of the study.

5.3. SAMPLING DESIGN

Population of the study was grain traders who were trading sesame in Humera and Metema cities. The sample frame, or list of the commodity exchange participants or actors, had been taken from the branches of Ethiopian Commodity Exchange found in Metema and Humera city. By using the Yamane (1967) formula this study selected a sample of 87 respondents, which is 12% of the 715 traders' population at 10% error term.

The sample was selected through a two-stage stratified random sampling technique using proportional size allocation. First, by geographical location of the traders found in Metema and Humera and second, by trader type such as assembler, full intermediary member, and full trading member of each main strata or city. In each stratum the study used lottery method to select the respondents to be included in the sample. The study was employing two-stage stratified random sampling technique in order to make better representative of respondents by their location and trader type.

TABLE 1: SAMPLING FRAME

Trader type	Humera city	Metema (shehidy gendawhu)	Total
Assembler (Akrabi)	300	200	500
Full Intermediary member	75	60	135
Full Trading member	45	35	80
TOTAL	420	295	715

Source: ECX (2013) Report

TABLE 2: SAMPLE OF RESPONDENTS FROM EACH MARKET CENTER BY TRADER TYPE

Trader type	Humera city	Metema (shehidy gendawhu)	Total
Assembler (Akrabi)	36	24	60
Full Intermediary member	9	7	16
Full Trading member	6	5	11
Total	51	36	87

Source: Own Survey (2013)

Sesame trader mean traders which are buying and selling sesame through ECX centre. **There are three types** of traders which are trading sesame through ECX centre thus are:-

- Assembler (Akrabi) they buy sesame from small holder farmers (produce less than 50 quintal) then they will sale on the ECX center and investor which are produce above 50 quintal. Because ECX will not allow to exchange below 50 quintal of sesame.
- Full intermediary member whose membership seat is permanent and freely transferable, and who can trade in any commodity either on his or her own account or on behalf of Clients.
- Full trading members, whose membership seat is permanent and freely transferable, and who can trade in any commodity.

5.4. DATA COLLECTION INSTRUMENTS

Primary data was collected from respondents by using open ended and closed ended structured questionnaires.

5.5. DATA PROCESSING AND ANALYSIS

The primary data that was collected through questionnaire was statistically analyzed by using probit model. In order to identify the factors affecting the willingness of traders to sustain trade through the ECX, traders were categorized into willing (1), consisting of traders who were interested to continue trading through the ECX and non-willing (0), consisting of traders who have no interest to continue trading sesame through the ECX.

The probit model was selected due to the nature of dependent variable, where a discrete dependent variable is involved; willing to continue trade through ECX and non-willing to continue trade through ECX valued as 1 & 0, respectively, probit model is appropriate.

The probit model is specified as:

$$Z = \beta'X + \epsilon, \epsilon \sim N_{(0,1)} \quad \dots \quad (1)$$

$$Y = 1 \text{ if } Z > 0 \text{ and } Y = 0 \text{ if } Z \leq 0$$

Where

β' represents vector of parameters to be estimated

Z is observed probability to have interest to trade through the ECX (willing)

Y is estimated probability to have interest to trade through the ECX

X represents vector of independent variables listed

ϵ is error term

Marginal effects, which measure the change in the probability to have interest to continue trade through the ECX due to a unit change in an explanatory variable, can be estimated either at the sample means of the data or at every observation and using the sample average of the individual marginal effects. In this study, the marginal effects were estimated by using the sample means of the respective explanatory variables as:

$$\partial Y / \partial X_i = \Pr(Y=1, \bar{X}, \Delta X_i) \quad \dots \quad (2)$$

Where

$\partial Y / \partial X_i$ = the marginal effect of explanatory variable X_i on the probability to have interest to trade through the ECX

\bar{X} = represents the sample means of other explanatory variables

ΔX_i = is the unit change of X_i

Traders' willingness was the dependent variable. Operational meaning of willingness is desire of traders to sustain trade through ECX center. The variable was coded as follows:

- The traders will be coded 1 if they are willing to sustain trade through ECX.
- The traders will be coded 0 if they are not willing to sustain trade through ECX.

The independent variables that are the determinants of trader's willingness to trade through ECX were categorized into:

- **Trader's socio-demographic factors**, i.e., Age, Education level, and Language
- **Level of satisfaction with the Grading system** (1=satisfied 0=unsatisfied)
- **Asset (Resource) ownership**, i.e., Warehouse ownership (1=Yes, 0=No); Cleaning facility ownership (1=Yes, 0=No); Truck ownership (1=Yes, 0=No); and Amount of working capital
- **Transaction cost**, i.e., Number of people consulted in main market to get price information; Number of people consulted in other market to get price information; Number of purchase markets; Number of trip to market; Time required to undertake a transaction (days); and Level of satisfaction with the Grading system (1=satisfied 0=unsatisfied)

The hypothesized variables that were derived through extensive review of literature are summarized as follows.

TABLE 3: HYPOTHESIZED VARIABLES

Concept	Variable	Measurement scale	Expected sign On Dependent variable	Rationale
	Willingness to continue trading in ECX	Nominal		
Demographic	Age of household head in years	Scale	+	Age is a proxy for experience, which can positively influence willingness
	Formal education in years	Ordinal	+	Education is a source of skill to undertake economic activity
	Number of language spoken (both local and foreign)	Scale	+	As the number of language spoken increases, traders ability for getting international experience increases
Resource ownership	Warehouse ownership (1=Yes, 0=No)	Nominal	+	The higher resources, the better the ability to try new things and to tolerate risk
	Truck ownership (1=Yes, 0=No)	Nominal	+	
	Cleaning facility ownership (1=Yes, 0=No)	Nominal	+	
	Working capital (in Million ETB)	Scale	+	
Transaction cost related variables	Number of purchase markets	Scale	+	If the number of purchase markets is high, traders will be interested to sustain trade through the ECX to reduce the transaction costs due involvement in many markets
	Number of people consulted in own market	Scale	+	If the number of counseled people in own market high, traders will be interested to sustain trade through the ECX to reduce the transaction costs due involvement in many markets
	Number of people consulted in other market	Scale	+	If the number of people consulted in other market to reduce the transaction costs due involvement in many markets
	Average time take to find a buyer (in days)	Scale	+	If the number of days required to undertake a transaction cost is low traders will be willing to sustain trading through ECX
	Average time taken to find a seller (in days)	Scale		
	Level of satisfaction with the current grading system of ECX	nominal	+	If there measurements are clearly stated to set grades trades will be willing to continue trading in ECX.

Source: Adopted from Alemu and Gerdien (2010); Mohamed (2011)

For validation of the model, multicollinearity tests has been performed using variance inflation factor (VIF) and Breusch-Pagan/Cook-Weisberg test for heteroskedasticity and omitted variables was checked using Ramsey RESET so that adjustments has been made accordingly.

To check the presence of omitted variables it was used Ramsey RESET test and it was found as the model has no omitted variables. Breusch-Pagan was used to deal with heteroskedasticity problem, i.e., the probit model was tested for heteroskedasticity through Breusch-Pagan heteroskedasticity test and the result showed that Prob> chi2 was 0.3625 (36.25%), which is greater than that of the significance level of 1%, 5%, and 10%. This result indicated that there is no heteroskedasticity problem and there is equal variance among the error terms and the model properly specified and well fitted. Besides, the validity of the assumption imposed in the model was tested to check the problem of multicollinearity for the determinants' of trader's willingness, variance inflation factor (VIF) was used. All variables were blow 10, i.e., maximum was 7.67, which mean there is no multicollinearity problem. Because of the problem of multicollinearity can be expressed as valuation of the assumption of covariance between the variables should be equal to zero. To arrive at this point two variables was dropped Experience year of establishment and information asymmetric. Thus the avoidance of such problem enables the explanatory variable to separately contribute to the variation in the dependent variable.

6. RESULTS AND DISCUSSIONS

For the purpose of examining the determinants of trader's willingness to sustain their trading through ECX have taken 87 traders as a sample and 80 questionnaires were filled and returned. The probit regression analysis was used to find out what factors influence traders willingness to sustain their trading in the ECX. Hence the probit model was estimated along with its marginal effect and the result presented as follows.

TABLE 4: THE ESTIMATE OF DETERMINATES OF TRADERS WILLINGNESS TO SUSTAIN TRADE IN THE ECX

Variable	Definition of the variable	Coefficient	Robust Std Error	Z	P> Z
Demographics	Age of household head in years	-.0559043	.0435927	-1.28	0.200
	Formal education in years	.3423009	.171948	.990	0.047**
	Number of language spoken (both local and foreign)	-.25526	.6117789	.205	0.040**
Resource ownership	Warehouse ownership (1=Yes, 0=No)	1.706988	1.367595	-1.25	0.110
	Truck ownership (1=Yes, 0=No)	3.960252	1.897304	2.09	0.437
	Working capital (in Million ETB)	.0002729	.0004136	0.66	0.009*
Transaction cost related variables	Number of purchase market	-.0013596	.0010789	-1.26	0.208
	Number of people consulted in own market	.8629946	.8145153	1.06	0.439
	Number of people consulted in other market	.413106	.9608784	1.47	0.014**
	Number of people involved in searching price information	.4546206	.6021091	0.76	0.050**
	Average time required to find a buyer (in days)	.2062921	.2385625	0.86	0.231
	Average time required to find a seller (in a day)	-.4275598	.4887471	-0.87	0.038**
	Level of satisfaction with current grading system (1=satisfied, 0= dissatisfied)	.621848	1.101851	-1.47	0.041**

Source: STATA output from own survey (2013)

Note: ** and * indicate significant at 5% and 1%, respectively.

Table 4 above presented the estimate of determinates of traders willingness to sustain trade in the ECX along with the overall significance of the model. From the hypothesized 13 explanatory variables, seven variables were found to significantly affect the trader's willingness to sustain trade through the ECX.

In terms of demographics:

- Trader's age of household head in years was insignificant it implies age of household have not an effect on trader's willingness.
- Formal education tends to have positive effect on traders willing to sustain trade through the ECX and it is significant at 5% level, implying that traders with higher formal education tend to be willing to sustain their trading through ECX which confirms that education always having the power individuals perception and at the same time creating or invention solution for the challenges come through the trading system of ECX.
- Number of languages spoken was found to have negative effect on traders willingness and it is significant at 5% level implying that traders with higher number of language spoken tend to be unwilling to sustain trading through the ECX which confirms when communication ability with others or social capital increase traders interest will decline to sustain trading through ECX.

In terms of resource ownership:

- Warehouse ownership and truck ownership were found statistically insignificant effect on trader's willingness to sustain trading through the ECX center.
- Working capital has a positive effect on traders' willingness at 1% level of significance implying that traders with higher working capital are willing to sustain trading through ECX. This is an implication of those who have high working capital have the capacity to tolerate risk to some extent than those who have low working capital.

Among transaction cost related explanatory variables:

- Number of purchase market, number of peoples consulted in own market and time required to sell or to find a buyer was found to be insignificant to affect traders willingness to sustain their trading through the ECX center.
- Number of people consulted to undertake transaction in other market and number of people involving in searching price information and time required to buy are found to positively affect trader's willingness. If the number of peoples consulted and participating in collecting price information as well as the time required in finding a seller decrease ECX traders will be willing to sustain trading within the ECX center.

In terms the level of satisfaction with the grading system in the ECX found to negatively affect willingness of traders to sustain trade through the ECX center. This implies when level of dissatisfaction increase with the grading system in the ECX center, traders will be unwilling to sustain trading through the ECX. This is in contrary with the theory that institutional markets or commodity exchange centers have the power of setting the right grades for each product as well as they will set a standard to which level of grade the product will be traded in the center so that traders will be willing to trade through ECX to sell or purchase with predetermined grade of product.

TABLE 5: PROBIT REGRESSION, REPORTING MARGINAL EFFECT FOR WILLINGNESS TO SUSTAIN TRADE THROUGH ECX

Variable	Definition of the variable	dy/dx	Robust Std Error	Z	X
Demographics	Age of household head in years	-.0209712	.01783	-1.18	.860087
	Formal education in years	.128406	.07221	1.78	.898730
	Number of language spoken (both local and foreign)	-.047088	.26116	1.80	.189873
Resource ownership	Warehouse ownership (1=Yes, 0=No)	-.5940083	.39039	-1.52	.56962
	Truck ownership (1=Yes, 0=No)	.8826259	.20517	4.30	.607595
	Working capital (in Million ETB)	-.00051	.00046	-1.10	1254.3
Transaction cost related variables	Number of purchase market	.0001024	.00016	0.62	1930.13
	Number of people consulted in own market	.3237319	.32737	0.99	1.56962
	Number of people consulted in other market	.5300932	.41073	-1.29	1.4557
	Number of people involved in searching information	.0605401	.23085	0.74	1.59494
	Average time required to find a buyer (in days)	.0360388	.19997	0.80	1.90506
	Average time required to find a seller (in a day)	.0373856	.09531	0.81	.55696
	Level of satisfaction with current grading system (1=satisfied, 0= dissatisfied)	.5805259	.31884	1.82	.341772

Number of Obs. = 80; RL chi2(22) = 94.43; Prob. > chi2 = 0.0000; pseudo r2 = 0.5819; log likelihood = 11.773681

Source: STATA output from own survey (2013)

Note: ** and * indicate significant at 5% and 1%, respectively.

The marginal effect report of the probit regression provides the probability that a trader will be willing to sustain trade through the ECX center. Table 5 above provides the probability estimation for the likelihood of willingness of traders given statistically significant variables (i.e., formal education, number of language spoken, working capital, number of people consulted to undertake transaction in the other market, number of peoples involved in searching price information, average time required to find a seller and level of satisfaction with the current grading system of ECX).

The marginal effect shows that:

- A unit increase in formal education will increase the probability of trader's willingness to sustain performing transaction through the ECX by about 12.8 %.
- A unit-change in language spoken increases the probability of unwillingness of a trader to sustain trading through ECX by 4.7%.
- The likelihood that of that the trader will be willing to sustain trade through ECX center as result of one birr increase at mean value in working capital is 5%.
- A unit increase at mean vale of number of people consulted to undertake transaction in the other market and number of peoples involved in searching price information, before ECX will increase trader's willingness to sustain trade through the ECX by 6.05% and 3.6%, respectively.

- An increase in time required to buy at mean value in days will increase the probability of trader's willingness to sustain trade through ECX centre.
- Moreover, the probability those traders will be unwilling to sustain trade through the ECX center will increase as a result of increase level of dissatisfaction in the grading system of ECX center.

7. CONCLUSIONS AND RECOMMENDATIONS

7.1. CONCLUSIONS

This study was aimed to assess the main determinates of traders willingness to continue trade through the ECX. To this end, primary data was collected from 80 ECX traders that were proportionately selected on randomly basis from each stratum of the assembler, full intermediary, and full trading members from Metema and Humera city. Moreover, the data was analyzed based on the probit model.

Accordingly, the probit model estimate of the determinants of traders' willingness to sustain trade through the ECX showed that:

- Traders with higher formal education tend to be more willing to continue trade through the ECX; this might be the knowledge they have helps them to understand how to use modern marketing system. Whereas higher number of languages spoken tend to be more unwilling to sustain trade through the ECX; this might be because of the traders are in border area so that they might have an interest to make illegal trade with Sudan traders.
- Traders with higher working capital tend to be more willing to sustain trading through ECX; this might be traders with higher working capital have the capacity to tolerate risk excepting future benefit.
- In terms of transaction costs, explanatory variables such as (i) number of people consulted at other markets per market day, (ii) number of employees participating in information collection, and (iii) time required to find a seller were found to positively influence traders' willingness to sustain trading through ECX.
- The level of satisfaction with the grading system in the ECX has been found to negatively affect willingness of traders to sustain trade through the ECX center. An increase in the level of dissatisfaction with the grading system in the ECX center, traders will be unwilling to sustain trading through the ECX. Because of grades have a direct relationship with product prices and adversely affect traders' behavior. Most of the time they are not willing to accept the grade provided to their product, because of corruption even they have not trust on the center, and the level of awareness on how the grade is provided to their product is very low.

7.2. RECOMMENDATIONS

The following recommendations are forwarded based on the research findings in order to show directions to policy makers to address issues pertinent to traders' willingness to sustain trading through ECX:

- One of the important obstacles to sustain trade in the ECX was quality grading and sampling system. The quality grading specialists of the exchange should treat all participants equally (without bias) and should be free from corruption. In addition to this training and capacity building should be given for the quality grading specialists in order to upgrade their knowledge and skill. Also it is better to mix all sesame purchased by traders from different small holders because of they have different quality the sample taken from the mix will result single grade for all quintals. This will improve the level of satisfaction for sesame traders so that they might be willing to continue trade through ECX.
- In order to mitigate the unnecessary increase time required to sell, it is better to add weighting machine, improve infrastructure such as lighting and internet connection problems.
- Why so many traders are reluctant to trade through the ECX remains still somewhat unclear. The awareness of traders about the trading system, grading system is very low. The ECX should make awareness creation activities through Broachers, Medias, as well as conducting conferences with traders about the importance of commodity exchange at a regular basis till traders become aware about the importance of the institution.
- It could be better traders to have a chance of alternative legal market centers to trade their product so as they will take a comparison.

7.3. LIMITATIONS AND SUGGESTIONS FOR FURTHER STUDY

The study dealt with the determinants of traders' willingness to sustain their trading through ECX by taking Sesame traders out of all traders trading through ECX. That is, the study focuses only on major determinants of sesame trader's willingness to continue trading activity in ECX in Metema city and Humera city. The study used variables such as demographics, resource ownership, transaction cost, and level of satisfaction with the current grading system. Therefore, further researches may be conducted by considering variables such as greater likelihood of being taxed when selling through the ECX, information asymmetry, and social capital in order to understand the effect of these variables on traders' willingness to sustain trading through ECX.

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FORMATIVE EVALUATION OF NIGERIA'S CONTRIBUTORY PENSION SCHEME IN NATIONAL OPEN UNIVERSITY OF NIGERIA, LAGOS

DR. CLEMENT IKENNA OKEKE
ASSOCIATE PROFESSOR
SCHOOL OF MANAGEMENT SCIENCES
NATIONAL OPEN UNIVERSITY OF NIGERIA
LAGOS

ABSTRACT


Given the need to evaluate and make the contributory pension scheme more responsive to the needs and requirements of contributors and the larger society, the study analyzed its level of awareness and effectiveness among the staff of National Open University of Nigeria, Lagos. Based on the questionnaire administered on 228 respondents, data presented on tables and hypotheses tested using chi square, the study found that the level of awareness of CPS is high, it is considered to be effective and better when compared with the old pension scheme, marital status and staff designation determined the perception of effectiveness of CPS and there is the need to establish a universal social pension scheme in Nigeria. arising from the findings, the study recommended the following measures as basis for making the scheme more responsive to the needs and requirements of contributors and the larger society: keeping contributors informed and empowered, explaining the gap between expected and actual pension income, linking CPS to NHIS, using CPS as an alternative to personal income insurance and encouraging banks and other financial institutions to loan money to retirees on the strength of their pension income.

KEYWORDS

Contributory Pension Scheme, National Pension Commission (PenCom), Pension Fund Administrator (PFA), Social Contract and Social Security.

1. INTRODUCTION

1.1 BACKGROUND OF THE STUDY

ocieties have passed through three epochal periods in humanity's evolution and development. From the initial state of nature, societies progressed to social contract and then to social security. This progression has been best articulated by the English philosopher, John Locke (1632 – 1704). Locke's work was adequately enunciated in the *Two Treaties of Government* in 1690. According to Locke, the state of nature described the period in which there was no government, and each individual had to fend for himself.

But as societies grew, people in the state of nature became aware of the need for laws. To achieve this, they entered into a "social contract" and subsequently established a political structure leading to the creation of governments for the express purpose of "protecting life, preserving freedom and security of property" (Christian, 2012). In this system of social contracts, material possessions were earned through individual labour and efforts. Thus, anything that a person laboured to create automatically became an extension of him.

However, because most humans are inherently acquisitive and because in the society there will always be aggressive self-serving types who will stop at nothing to satisfy their gluttony, the "great and chief end, therefore, of men's uniting into commonwealths, and putting themselves under government, is the preservation of their property" (Locke, 1690). Thus came to be the political society instituted by individuals for their mutual protection and by so doing, relinquished their freedom and transferred power to the political entity, the state. The state was thus empowered to make laws and enforce them, to assign penalties for infractions, and to make war when there was legitimate need for it.

By sub-letting their freedom and loyalties to the government in a social contract, the people in turn, expected physical, social and economic protection against needs and wants. It is in the realization of this and the need to continue to enjoy the allegiance of the people—especially at a point in history when the unprecedented gains of globalization benefits only a few—that has prompted the Social Security Department of the International Labour Office to suggest the urgent need for "a global social contract," part of which is the new, internationally-accepted, *Basic Social Security Floor* (ILO, 2008). Article 9 of the ICESCR states inter alia "...the right of everyone to social security, including social insurance," while Article 10 dwelt on assistance to families and the rights to adequate standard of living. Nigeria, like more than 160 other countries that are signatory to the Covenant, has a responsibility to uphold its spirit and letters. Likewise, section 17 of the Nigerian 1999 constitution elaborates the social objectives of Nigeria, which is basically similar to the ideas enunciated in the ICESCR.

The imperative for social security has not been lost on Nigerians and their governments. Nigerians have since independence in 1960, continued to strive for a sustainable social security system that would significantly lower economic insecurities, promote economic efficiency, social equity, growth and stability in spite of the nation's current woeful socio-economic statistics as captured by the indices of human development and poverty, life expectancy, literacy, employment etc.,. Since the First Republic, several efforts have been made by different administrations to put in place a sustainable framework for the takeoff of a social security system that would take care of health, pension, housing and other social needs of the populace. These efforts have resulted in the institutionalization of the National Housing Fund (NHF) via the NHF Act No. 3 of 1992, with a view to providing mortgage financing for residential housing to workers at low interest rates, the National Health Insurance Scheme (NHIS) Decree 35 (now Act 35) of 1999, the Pension Reform Act (PRA) of 2004, and more recently, the Employees' Compensation Act (ECA) 2010 which repealed the Workmen's Compensation Act (WCA) of 2004.

In spite of these social security initiatives, lack of income security, economic instability and consequently, the inability to meet basic needs are some of the challenges still confronting most Nigerians today. According to the World Bank's Development Indicators, 67.98% and 84.49% Nigerians live below \$1.25 and \$2.00 per day respectively (i.e., the international poverty line) as at 2010 (World Bank, 2013); while those living below the national poverty line only decreased marginally from 48.4% in 2004 to an estimated 46.0% 2010, despite the average GDP growth rate of around 6.6% (World Bank, 2013) within the same period.

1.2 STATEMENT OF RESEARCH PROBLEM

Before 2004, Nigeria had operated a pension scheme that was not contributory. It was basically a pay-as-you-go Defined Benefit Scheme (DBS). It relied fully on budgetary allocation for its funding with attendant challenges of increasing budget burden, corruption, ghost pensioners, delays in gratuity payment and payment of monthly pensions to deserving retirees etc. As at 2004, the old pension scheme was clearly unsustainable and manifestly crooked. When the 2004 Pension Reform Act was promulgated, it was meant to establish a contributory scheme for the payment of retirement benefits of employees in the public and private sectors. The law sought a system that would correct the failures of the old scheme, in which workers were subjected to undue hardship, especially in the non-payment of their pensions. Under the old scheme, such expected beneficiaries had to queue for days to get their pensions, with many of them dying in the process without getting paid. Under the contributory scheme, every employee is mandated to open and maintain an individual Retirement Savings Account in his or her name with any Pension Fund Administrator of his choice and notify his employer of it, according to Section 11 of the 2004 PRA. PFAs are, by law, mandated to manage the RSA accounts, but these funds and pension assets must be kept with Pension Fund Custodians, who are guaranteed by banks. They are to be regulated by the National Pension Commission. The employer, according to the law, must always deduct 7.5 percent of the employee's remuneration and add another 7.5 per cent to it for such an employee; making a total of 15 per cent, which should be paid into the RSA as salaries are paid monthly. On retirement, a worker can have access to the funds when he reaches the age of 50 and is no longer in paid employment or, when he gets to the retirement age stipulated by his employer. However, he would not be allowed to withdraw the total balance in his RSA, as he can only be given certain percentage of the fund known as lump sum, while the rest will be utilized either as programmed withdrawal or as annuity. If the retiree opts for programmed withdrawal, his PFA will

be paying him monthly pensions for a maximum period of 18 years. On the other hand, if he opts for annuity, the remaining balance in his RSA, after deducting the lump sum, will be transferred to an insurance company chosen by him, and the insurance company will pay him for life.

Bearing in mind the evident flaws of the old pension regime, it would be important to conduct an evaluation of the new scheme nine years after its implementation from the perspective of its key stakeholder-contributors to the scheme who are prospective retirees and beneficiaries of the scheme. The result of the study will answer critical questions: is the scheme working as planned? Are there unintended consequences that have emerged over the nine years it has been implemented? Can the scheme be fashioned to work and better serve the interest of the primary contributors and prospective beneficiaries? Can the scope and coverage of the scheme be expanded to cover not just those in the formal sector of the economy but also the many that are within the informal sector of the developing Nigerian economy? It is in finding answers to these general questions and the specific research questions that the rationale and justification of the study can be found.

1.3 RESEARCH QUESTIONS

This study seeks to examine the following specific research questions:

1. What is the level of awareness about the CPS of the Federal Government of Nigeria among the staff of NOUN?
2. What is the level of participation of NOUN staff in the CPS?
3. What is the perceived level of effectiveness and satisfaction among NOUN participating staff in CPS?
4. Do NOUN staffs have faith in the ability of CPS to deliver on its promises?
5. Is there an association between marital status and staff designation with the effectiveness of the CPS?

1.4 OBJECTIVES OF THE STUDY

The general objective of this research work is to appraise the awareness and effectiveness (real and perceived) of Nigeria's Contributory Pension Scheme among the staff of the National Open University of Nigeria (NOUN).

The specific objectives of the study are to:

1. Determine the level of awareness of CPS among NOUN staff.
2. Determine the level of participation of NOUN staff in CPS of government.
3. Examine the perceived level of effectiveness and satisfaction of the NOUN with CPS.
4. Assess the level of trust and sense of security felt by NOUN staff participating in the scheme.
5. Determine the factors affecting effective participation/utilization of CPS among the staff of NOUN.

1.5 SCOPE OF THE STUDY

The study seeks to examine the rationale for the establishment of PRA 2004. Furthermore, the study also attempts to examine the roles of the regulatory agencies (PenCom, PFAs) created by the aforementioned legislation, identify achievements and challenges of the scheme resulting therefrom, and evaluate some factors that may be responsible for those achievements/challenges. The study population was the staff of NOUN, comprising academic and non-academic staff at the Headquarters of the University.

1.6 DEFINITION OF TERMS

Contributory Pension Scheme (CPS): A pension scheme where both the employee and the employer contribute a percentage of the employee's salary as premium at the pre-determined rates.

National Health Insurance Scheme (NHIS): It refers to the social health insurance scheme created by the NHIS Act, 1999. It is also the name of regulatory agency for the scheme.

National Housing Fund (NHF): Established under the NHF Act No.3 of 1992, the NHF is a mandatory employee contributory fund (at 2.5% of basic monthly salary) for all workers earning the minimum national wage and above in both the public or private sectors of the economy, for the purpose of providing houses to intended beneficiaries within the scheme.

National Pension Commission (PenCom): Created by the PRA, 2004 as the regulatory agency for the CPS. Its functions include issuing regulatory guidelines over the investment of pension fund, retirement benefits/pension, Pension Fund Administrator (PFA), Pension Fund Custodians (PFC), etc.

Social Security: A generic term used to describe government-back welfare scheme aimed at assisting the aged, the needy, the retired, the disabled or the sick in the society, including their spouses and dependents (where applicable).

Universal Declaration of Human Rights, 1948 (UDHR): The first international human right instrument under the UN system and a precursor to other more specific instruments on the protection of rights.

2.0 LITERATURE REVIEW

2.1 CONCEPTUAL FRAMEWORK

The basic underlying principle of any social security scheme entails the provision of income to beneficiaries at times when they are not able to fend for themselves e.g., at retirement. Given this perspective, the most common social security schemes are pension, stipends for the elderly, unemployed, disabled, veterans, etc. Others include health insurance, child benefits, etc.

Social security is largely a collective care arrangement to meet contingencies and other conditions of insecurity due to either deprivations or contingencies or both (Akosile & Oyedele, 2013). Put differently, "social security arrangements are both collective adversity and deficiency issues (Akosile & Oyedele, 2013)." While the adversity aspect is addressed through a contingent social security (CSS) such as the Nigerian Employees' Compensation Act 2010, the issue of deficiency is directly addressed via the provision of a basic social security. The twin dimensions (deficiency and adversity) are inseparable components of macroeconomic continuum and are closely related to the problem of poverty reduction and development.

Given the severity of poverty in Nigeria and its concomitant fallouts (militancy and insecurity—terrorism, kidnapping, armed robbery are common experiences of daily life in Nigeria presently). Social security anchored on adequate and sustainable pension scheme is therefore an imperative in addressing the problem of poverty reduction for a particular group of Nigerians. With a total enrollment figure of 5.8 million as at 2013, this figure is low (in a population of about 160million, but remains significant. Figures from the National Bureau of Statistics put the national, revised absolute poverty level on the basis of per capita estimation at 62.6% for the 2009/10 fiscal year (NBS, 2013).

2.2 THE PENSION REFORM ACT, 2004

Faced with rising and unsustainable costs of financing the old pay-as-you-go Defined Benefit Scheme (DBS) of the Nigerian pension system, the country switched to the Contributory Pension Scheme (CPS) in 2004 in line with the Pension Reform Act of 2004. The National Pension Commission (PenCom) was set up by the PRA, as the statutory regulatory agency for the nation's Contributory Pension Scheme. The Commission is also empowered to license Pension Fund Administrators (PFAs) and Pension Fund Custodians (PFCs). According to the law, all employees in both the public and private sectors organizations with at least five (5) employees are mandated to subscribe to the scheme.

PenCom commenced formal operations in December, 2004. Under the CPS, PenCom supervises and ensures the effective administration of pension matters in Nigeria by doing the following (PenCom, 2008):

- Ensuring that payment and remittance of contributions are made and beneficiaries of retirement savings accounts are paid when due;
- Ensuring the safety of the pension funds by issuing guidelines for licensing, approving, regulating and monitoring the investment activities of Pension Funds Administrators;
- Receiving and investigating any complaint of impropriety leveled against any Pension Fund Administrator, Custodian or employer or any of their staff or agents;
- Standing as a watchdog, with the overriding objective of ensuring that all pension matters are administered with minimum exposure to fraud and risk; and
- Employing the use of approved risk rating agencies to determine the viability of an investment instrument.

The CPS is predicated on a minimum of 7.5% of the basic salary, housing and transport allowances, each for the employer and the employee (except for the military and security agencies, where it is 12.5% and 2.5% respectively) being paid into a personalized and portable Retirement Savings Account (RSA) for each employee. Alternatively, an employer may elect to contribute on behalf of the employees, but the total contribution shall not be less than 15% of the Basic Salary, Housing and Transport allowances of the employees.

In addition to the contributory pension section 9(3) of the Act mandates every employer of labour to take a Life Insurance Policy on behalf of their employers for an insured amount of at least three (3) times their annual total emolument. However, entitlements under the life insurance policy are paid to a deceased employee's survivors (spouse or child) or to the recorded next of kin in line with Sec. 5(1) & (2) of the Act. It must be pointed out that the life insurance policy herein referred to does not cover injury, disability or disease suffered by a worker at work or in the course of employment—such contingencies are exclusively situated within the purview of social protection services, which are firmly addressed by the Employees Compensation Act (ECA), 2010 which is administered by the NSITF.

Under the scheme, PFAs and PFCs were created to manage the contributory pension funds under the regulatory guidance of the PenCom. While PFAs administer the Retirement Savings Accounts into which the pension contributions go into, the PFCs keep the money. According to PenCom (2008), "an Employer is obliged to deduct and remit contributions to a Custodian within 7 days from the day the employee is paid his Salary while the Custodian shall notify the PFA within 24 hours of the receipt of Contribution."

The key features magnifying the advantages of the new pension scheme over the old one include the following: It is fully funded, privately managed, allows employees the freedom to maintain individual accounts, choose their PFAs and change them when they need to. PFAs are also mandated to maintain a statutory reserve fund which will act as a buffer. The scheme has also generated a pool of funds for development for the national economy.

According to the Thisday (2013), Nigeria's Contributory Pension Scheme has achieved the following milestones between 2004 and the end of second quarter of 2013:

- PenCom has in the last nine (9) years registered eighteen (18) Pension Fund Administrators (PFAs), four (4) Closed Pension Fund Administrators (CPFAs) and seven (7) Pension Fund Custodians (PFCs);
- Pension assets under the management of PFAs has grown to N3.38 trillion, representing about 8 per cent of Nigeria's Gross Domestic Product (GDP) as at June, 2013, while the number of Retirement Savings Account (RSA) holders rose to 5.5 million as at end of May 2013; and
- Retirees drawing monthly pension under contributory pension rose to 54,558 retirees from both public and private sectors as at September 2012 and they collectively received over N151.52 billion of their accumulated pension savings as lump sum and N1.77 billion monthly as pension as at then.

Based on emerging operational challenges and increased expectation of contributors and prospective beneficiaries of the scheme, after almost nine years of operating the CPS powered by the PRA 2004, there are now moves to repeal the Act (earlier amended in 2011) by the Pension Reform Bill 2013 which was before the National Assembly as at the time of conducting this research. The main objectives of the Pension Reform Act (PRA) 2013 Bill, according to the Commission were to enhance the powers of the Commission in its regulatory and enforcement activities; enhance the protection of pension fund assets; unlock the opportunities for the deployment of pension assets for national development; review the sanctions regime to reflect current realities; provide for the participation of the Informal Sector; increase the percentage contribution to the basic RSA; provide the framework for the adoption of the Contributory Pension Scheme (CPS) by States and Local Governments; among others. Other major amendments sought by the Bill, 2013 include:

- Payment of gratuity as additional benefits which was abolished under Section 4 of the PRA 2004 is to be reintroduced based on the persistence of workers and the consensus of stakeholders, but to be based on collective bargaining.
- Adoption of CPS by States and Local Government: as at September, 2003, Niger was the only State of the federation that had fully complied with the contributory scheme. The Bill seeks to formally bring all the States and LGAs into the Scheme with some allowed local variations.
- Greater regulatory oversight over PTADs by PenCom to enhance transparency and accountability in the administration of pension funds under the old DBS.
- To capture a wider number of employees in the informal sector which unarguably constitute the greater chunk of the country's economy, the Bill seeks a minimum requirement of five (5) employees for organizations to participate in the scheme be reduced to three (3) to enable small businesses, especially the Small and Medium Scale Enterprises (SMEs) to partake in the scheme.
- Seeks to expand the sphere of permissible investment instruments to accommodate initiatives for national development which include among others investment of the pension funds in the real sector with a focus on infrastructure and housing.
- Funding of the Minimum Pension Guarantee (MPG) and the establishment of the Pension Protection Fund (PPF): this will help to ensure that pensioners do not earn less than a given threshold and also to compensate pensioners in the unlikely event of financial losses that may be sustained from investment of pension funds. The PPF would take care of the aforementioned circumstances and would be funded through grants from PenCom and pension operators.
- Seeks to align the pension law with section 173 of the 1999 constitution which provides for the review of pensions of every five (5) years; this would help to reduce the negative effect of inflation on a fixed income.
- While Sections 7 and 10 of the PRA 2004 provides for tax exemption at the point of accumulation and payment of retirement benefits, the Act was, however, mute on taxation of pension funds. Thus, the 2013 Bill seeks the amendment of Section 7 of the PRA 2004 to include tax exemption on income earned from the investment of pension funds.
- The bill also seeks to incorporate past changes to the PRA 2004 in the Pension Reform (Amendment) Act 2011 which exempt personnel of the military and other security agencies from the CPS; the Universities (Miscellaneous) Provisions Act 2013 which reviewed the retirement age and benefits of University Professors; as well as the third alteration of the 1999 constitution vide the Third Alteration Act which vests jurisdiction on pension matters in the National Industrial Court.

3. RESEARCH METHODOLOGY

The data need of this study was defined in two broad areas. First is the extent of participants' awareness of CPS from the perspective of enlightened users of the system. Second is the effectiveness of cps in meeting the needs and expectations of primary participants in the scheme, again from the perspective of its users.

The study relied on questionnaire as the survey instrument for collecting data on the participants' awareness and perceived effectiveness of CPS based on Nigerian experience of respondents. The questionnaire majorly tried to establish the profile of respondents in the key areas of age, gender, marital status, number of dependents under 18 years, educational qualification, salary scale, category of staff, years of service in noun, nature of current appointment and year of first pensionable appointment. The other issues covered by the questionnaire included:

Are you a contributor to CPS?

Apart from cps, are you aware of any other entitlement under the CPS?

How many years have you been on CPS?

Has noun been remitting your contributions into your RSA?

Do you get regular account updates from your PFA?

Rating of CPS vis-à-vis the old pension scheme

Identification of the greatest threat to pension fund assets

Should pension funds be invested to increase the value and benefits to retirees?

Recommended options for the investment of pension funds

Adequacy of the current pension scheme to secure/sustain retirees financially

Support of the current initiative to amend the pension reform act 2004

The draft questionnaire was peer reviewed and pre-tested in seeking to enhance its ability to measure what was intended. The outcome of the exercises led to the recasting of ambiguous questions, deleting of redundant ones and inclusion of new ones to fill identified gaps. It became imperative therefore to select respondents from a population of highly literate and financially active Nigerians who are aware of the old DPS and the new CPS obtainable in Nigeria.

To meet the outlined requirements of the data collection source, the study used a population of academic and nonacademic staff of National Open University of Nigeria (NOUN). Being a federal institution with staff drawn from all states, tribes and religions in Nigeria, the population surveyed met the requirement of active and knowledgeable users of CPS in Nigeria. This is in line with the grounded theorists' rule of selecting purposive samples from participants who represent the major categories of people relevant to the research [Charmaz, 2003] and [Henwood and Pidgeon, 1993].

National Open University of Nigeria is an open and distance learning university established in 2000 to offer university education using flexible mode of learning. It is headquartered in Lagos and has 50 study centres in all the 36 states and federal capital territory, Abuja. NOUN offers academic programmes leading to the award of diploma certificates, First, Masters and PhD degrees in 5 major Schools-Arts and Social Sciences, Law, Management Sciences, Education and Sciences. The total staff strength consisting of academic and nonacademic staff stood at 1497 as at October 2013. The number of staff as at October 2013 in the Lagos office of NOUN stood at 840 as at October, 2013. This study was limited to the staff of NOUN in Lagos office.

Being a staff of NOUN facilitated access to the elements of the study population and cooperation from them in completing the questionnaire. With a population of 840 staff, the sample size was determined at 271 using taro Yamani's formula for sample size determination for a finite population. The questionnaire was administered on all available and willing 271 staff on the 14th and 15th of December, 2013.

While a total of 271 copies of the questionnaire were administered, only 251 were returned within the two days. Given incompleteness' and inconsistency in completion 23 returned questionnaire were rejected. Thus, 228 returned questionnaires were analyzed. This gave an effective response rate of 84.13%.

The collected primary data were presented on tables and analyzed using frequency distribution. Data were also collected and analyzed to define the profile of respondents.

4.0 FINDINGS AND DISCUSSION

4.1 PROFILE OF RESPONDENTS

The profile of respondents is as indicated on Table 1 below.

TABLE 1: SOCIAL DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

S/N	Variable		Frequency	Percentage (%)
A.	Age	20 - 25	5	2.19
		26 - 30	60	26.32
		31 - 40	92	40.35
		41 - 50	38	16.67
		51 - 60	30	13.16
		Above 60	3	1.32
		Total	228	100.00
B.	Gender	Female	128	56.14
		Male	100	43.86
		Total	228	100.00
C.	Marital Status	Married	162	71.05
		Single	66	28.95
		Total	226	100.00
D.	Highest Academic Qualification	SSCE/WAEC	8	3.51
		NCE/OND	22	9.65
		B.Sc./HND	89	39.04
		PGD	17	7.46
		Masters	69	30.26
		PhD	23	10.09
		Total	228	100.00
E.	Staff Designation	Academic	61	26.75
		Non-Academic	167	73.25
		Total	228	100.00
F.	Years in Services	2003 [11]	8	3.51
		2004 [10]	2	0.88
		2005 [9]	12	5.26
		2006 [8]	12	5.26
		2007 [7]	14	6.14
		2008 [6]	8	3.51
		2009 [5]	38	16.67
		2010 [4]	32	14.04
		2011 [3]	48	21.05
		2012 [2]	18	7.89
		2013 [1]	36	15.79
		Total	228	100.00

Source: Field Survey, 2013

While 40.35% of the respondents were between the ages of 31 & 40 years, 26.32% and 1.32% were between 26 & 30 years and 60 years and above respectively. Majority (56.14%) of the respondents were females while 43.86% were males.

Almost two-third (71.05%) of the respondents was married, while 66 (or 28.95%) were single. In terms of educational qualification, about one-tenth (10.09% and 9.65%) had PhD and OND/NCE as their highest academic qualifications respectively, while 30.26% and 39.04% had Masters and B.Sc./HND respectively. The table also shows that 61 or 26.75% of the respondents were academic (teaching) staff, leaving a balance of 73.25% as non-academic (non-teaching) staff.

On the number of years spent in the services of NOUN, the years 5 and 3 had the highest number of respondents with 16.67% and 21.05% respectively.

4.2 ANALYSIS BASED ON RESEARCH QUESTIONS

4.2.1 Awareness and Effectiveness of the CPS

TABLE 2: EXTENT OF RESPONDENTS' AWARENESS AND ASSESSMENT OF EFFECTIVENESS OF CPS

S/N	Variable		Frequency	Percentage (%)
A.	Contributor to the CPS	Yes	218	95.61
		No	10	4.39
		Total	228	100.00
B.	Aware of any other entitlement under the Nigerian pension law like death benefits	Yes	81	35.53
		No	147	64.47
		Total	228	100.00
C.	Aware if employers have been remitting contributions to the RSA	Yes	135	59.21
		Don't know	62	27.19
		No	31	13.60
		Total	228	100.00
D.	Gets regular account updates on RSA from the PFAs	Yes	141	64.68
		No	77	35.32
		Total	218	100.00
E.	Effectiveness of the CPS compared to the old Scheme before it	Very effective	48	21.05
		Effective	119	52.19
		Neither effective nor ineffective	43	18.86
		Ineffective	10	4.39
		Very ineffective	8	3.51
		Total	228	100.00
F.	Think Pension Funds should be invested to increase value and benefits for retirees	Yes	192	84.21
		No	36	15.79
		Total	228	100.00
G.	Adequacy of the current pension scheme to secure/sustain employees economically when they retire	Yes	78	34.51
		Don't know	73	31.86
		No	77	33.63
		Total	228	100.00
H.	Support for an amendment of the PRA increase minimum employees' contribution from 7.5% to 8.5%, while employers pay 12.5%	Yes	166	72.81
		No	62	27.19
		Total	228	100.00
I.	Greatest threat to pension assets	Financial losses due to bad investments	24	10.53
		Misappropriation by government officials	83	36.40
		Misappropriation by PFAs	67	29.39
		Misappropriation by PFCs	27	11.84
		Non-remittance of contributions by employers	27	11.84
		Total	228	100.00

Source: Field Survey, 2013

Table 2 reveals that 218 respondents representing 95.61 accurately stated that they were contributors to the CPS, while 4.39% incorrectly said they were not contributors. However, awareness on the existence of other entitlements like death benefits for survivors under Nigerian pension law was low with only 35.53% claiming to be aware of them. On awareness of employer remitting pension contributions to the Retirement Savings Account (RSA) 59.21% of the respondents were aware, while 13.60% claimed they were not aware.

Majority (64.68%) of respondents receive regular account updates on the RSA from their Pension Fund Administrators (PFAs). On effectiveness of the CPS compared to the previous scheme before it, 21.05% and 52.19% said it was very effective and effective respectively.

On the support for whether pension funds should be invested, 84.21% gave their nod, while 15.79% objected. A similar majority (72.81%) support was expressed for the proposed amendment to the Pension Reform Act (PRA) 2004 that would see an increase in minimum contributions of employees by 1% to 8.5% while the employers contribute 12.5%. Views on the adequacy of the CPS to secure and sustain employees economically at retirement were almost equally split amongst "yes" (34.51%), "don't know" (31.86%) and "no" (33.63%).

Among the corruption factors considered threats to pension fund assets, misappropriation by government officials topped the pack at 36.40%, followed by misappropriation by PFAs at 29.39%, while exactly equal proportion of respondents (11.84) believed misappropriation by Pension Fund Custodians (PFCs) and non-remittance of contributions by employers were the greatest threats.

TABLE 3: PREFERRED OPTIONS FOR INVESTING PENSION FUNDS

Variable	Frequency	percentage
Critical National Infrastructure	37	16.15
Government Bonds	101	44.27
Money Market Instruments	32	14.06
Stock Market /Shares	58	25.52
Total	228	100

(Source: Field Survey, 2013)

Table 3 reveals that Government bonds (44.27%) and stocks (25.52%) were respondents' options for investing pension funds; even as 14.06% preferred (other) money market instruments (apart from government bonds) and 16.15% thought critical national infrastructures like roads and power to be the right way to invest the funds.

TABLE 4: ASSOCIATION BETWEEN MARITAL STATUS, AND STAFF DESIGNATION WITH EFFECTIVENESS OF THE CPS

Marital Status		EFFECTIVENESS OF THE CPS COMPARED TO THE DBS					Total
		Very Effective	Effective	Neither Effective nor Ineffective	Ineffective	Very Ineffective	
	Married	38 (23.6)	89 (55.3)	28 (17.4)	6 (3.7)	0	161
	Single	10 (14.9)	30 (44.8)	15 (22.4)	4 (6.0)	8 (11.9)	67
	Total	48 (21.1)	119 (52.2)	43 (18.9)	10 (4.4)	8 (3.5)	228 (100%)
Chi-square = 11.4614 Df = 4 p = 0.0218							
Staff Designation		Very Effective	Effective	Neither Effective nor Ineffective	Ineffective	Very Ineffective	Total
	Academic	12 (19.7)	16 (26.2)	19 (31.1)	8 (13.1)	6 (9.8)	61
	Non-Academic	36 (21.5)	103 (61.7)	24 (14.4)	2 (1.2)	2 (1.2)	167
	Total	48 (21.1)	119 (52.2)	43 (18.9)	10 (4.4)	8 (3.5)	228 (100%)
Chi-square = 20.6468, Df = 4, p = 0.0004							

Source: Field Survey, 2013

Table 4 shows statistically significant relationship between marital status, and staff designation with effectiveness of CPS ($P < 0.05$). A greater proportion of married respondents (23.6% and 55.3%) believed the CPS was very effective and effective as against 14.9% and 44.8% of the singles respectively. In the case of staff designation, a greater proportion of the non-academic staff (i.e., non-teaching) compared to the academic (or teaching) staff, felt the scheme was effective.

TABLE 5: AWARENESS AND VIEWS ON OTHER SOCIAL SECURITY SCHEMES

TABLE 3. AWARENESS AND VIEWS ON OTHER SOCIAL SECURITY SCHEMES				
S/N	Variable		Frequency	Percentage (%)
A.	Awareness of other social security schemes other than the CPS	Yes	5	2.65
		No	223	97.35
		Total	228	100.00
B.	Need for a nationwide, government-backed social security/protection for vulnerable members of the society	Yes	197	86.40
		No	31	13.60
		Total	228	100.00
Funding for Universal Social Security				
C	Payroll tax only	Yes	15	7.61
		No	182	92.39
		Total	197	100.00
	Corporate tax only	Yes	21	10.66
		No	176	89.34
		Total	197	100.00
	Corporate and payroll taxes	Yes	70	35.53
		No	127	64.47
		Total	197	100.00
	Lottery taxes	Yes	29	14.72
		No	168	85.28
		Total	197	100.00
	Taxes from the super-rich only	Yes	54	27.41
		No	143	72.59
		Total	197	100.00
	Pension funds	Yes	31	15.74
		No	166	84.26
		Total	197	100.00
	Government budget only	Yes	109	55.33
		No	88	44.67
		Total	197	100.00

Table 5 reveals that only 2.65% of respondents are aware of other social security schemes other than the CPS. On the need for a nationwide, government-backed social security/protection for vulnerable members of the society, 86.40% of the respondents indicated agreement.

The sources of funding for universal social security in Nigeria were listed by the respondents as:

Government budget only (55.33%), corporate and payroll taxes (35.53%), taxes from the super-rich only (27.41%), pension funds (15.74%), lottery taxes (14.72%), corporate tax only (10.66%) and payroll tax only (7.61%).

Answers to Research Questions

Research Question 1: What is the Level of Awareness about CPS among the Staff of NOUN?

The level of awareness of CPS among staff of the National Open University of Nigeria was high, particularly given the fact that the scheme is mandatory. However, specific knowledge about some aspects of the schemes was relatively low. Table 2 reveals that 95.61% are aware of being contributors to the scheme, 35.53% are aware of other entitlements like death benefits, 59.21% are aware of the employer remitting pension contributors to the RSA, and 64.68% receive regular account updates on the RSA from PFAs.

Research Question 2: What Is The Level Of Participation Of NOUN Staff ON CPS?

Because of the compulsory nature of the scheme, participation is closely associated with awareness. The results of the study showed the level of participation as (95.61%). Participation by way of accessing benefits of the scheme could not be measured for employees, who are currently working. It is only on retirement that effectiveness by way of access to benefits could be measured.

Research Question 3: What is The Perceived Level of Effectiveness and Satisfaction among Participating Staff in CPS?

A combined total of 73.24% of respondents indicated that CPS was effective especially when compared with the old pension scheme.

Research Question 4: Do NOUN staffs have faith in the ability of CPS to deliver on its promises?

While there was a general belief that pension funds could be corruptly mismanaged, 36.4% and 29.39% of the respondents believed misappropriation by government officials and the PFAs to be the biggest threat to the CPS. On adequacy of the pension funds to meet the needs of the employees at retirements, respondents were almost equally divided in their responses, with 34.51% and 33.63% being positive and negative respectively. Perhaps, it was in recognition of this uncertainty that prompted 84.31% of the staff to support investment of the pension funds.

Research Question 5: What Are Those Factors Affecting Effective Participation/Utilization of the Scheme?

Marital status and staff designations showed statistically significant association with effectiveness of the CPS compared to the old pension scheme.

4.3 DISCUSSION OF FINDINGS

Awareness and Participation in CPS

The scheme as designed and implemented is mandatory; hence contributions are taken from source. The level of awareness and participation in the CPS among the staff was quite high: (95.1%) The higher awareness on remitting of deductions recorded for the CPS might have been informed by the fact that most of the PFAs are reachable for clarifications and they also give monthly/quarterly account updates as confirmed by 64.68% of the respondent

Level of Effectiveness and Satisfaction of the Staff on CPS

A combined 73.24% of respondents felt CPS was effective. This suggests a high level of satisfaction of participants with the scheme. Being satisfied with the scheme does not preclude efforts toward rejigging the scheme and making it more responsive to emerging needs, expectations and requirements of users. This is in line with efforts being made to review and update the law that established the scheme.

Level of Trust and Sense of Security Felt by the Staff Participating In the Scheme

With regards to the ability of the scheme to meet the future needs and satisfy the requirements of contributors on, the enquiry was two-pronged: the biggest threat to pension funds as well as the guarantee that the CPS could adequately cater for employees. On the first point, there was a general consensus that the pension funds could be threatened by mismanagement, given the pervasive corruption in the land. Among the possible threats considered, misappropriation by corrupt government officials and PFAs topped the pack with 36.40% and 29.39% respectively. Given the perennial cases of pension funds theft involving government officials, the views of the NOUN staff could be understood. However, it may be pointed out that no serious infractions have been recorded so far with CPS involving the PFAs.

On the second point which deals with sustainability and adequacy of the CPS to cater for employees' economic needs at retirement, responses were almost equally split amongst "yes" (34.51%), "don't know" (31.86%) and "no" (33.63%). It was the recognition of this fact that might have informed the reason why about five out of every six respondents (84.31%) supported the investment of pension fund, while 72.81% gave their nod for an increase in CPS deductions to a total of 20% from 15%, with the employees paying 8.5% as against the current rate of 7.5%.

Compared to the DBS, it has been reported that some of the officers who have retired under the CPS do not receive as much funds as they had hoped. Such a situation, could be improved upon with increased contributions as discussed above, especially considering the fact that the average lifespan of Nigerians—which, as at 2011, was 52 and 54 years for male and female respectively (WHO, 2012)—is sure to increase in the nearest future, thereby stretching the pension assets. Another issue that should also be mentioned about sustainability and adequacy of the pension funds is the eroding effects of inflation. Section 3 of the PRA 2004 gives the option for a retiring worker to take a lump sum from his RSA but provided the remaining amount is enough to fund an annuity with a resultant income "not less than 50% of his monthly remuneration." With an inflation rate averaging over 11% in the past ten (10) years (World Bank, 2013), it is important that there is some provision for a fully indexed pension and appropriate actuarial reviews by the PenCom. Simply put, PenCom should ensure that what a pensioner earns monthly, which by law should not be less than 50% of his last monthly remuneration while he/she was in service, should be a function of real purchasing power, not nominal figures.

Factors Influencing/Affecting Effective Participation/Utilization of the Scheme

In the case of the CPS, the PFAs are at the centre of the pension scheme. Majority (64.68%) of the respondents reportedly got timely account updates on RSA.

On how to boost accruable benefits from pension fund by investment, 44.27% and 25.52% went for government bonds and stocks/shares respectively, while 16.15% thought critical national infrastructures like roads and power to be the right way to invest the funds. Here, care must be taken by the PenCom to ensure that necessary institutional frameworks are put in place to ensure that accumulated pension contributions standing at almost N5 trillion are prudently invested in only productive endeavours and not in high risk and questionable business concepts that would endanger the economic survival of the owners of the funds at retirements.

Marital status and designation of staff were the statistically significant factors that influenced the perceived effectiveness of the contributory pension scheme ($P < 0.05$). A greater proportion of married respondents (23.6% and 55.3%) believed the CPS was very effective and effective as against 14.9% and 44.8% of the singles respectively; while a greater proportion of the non-academic/non-teaching staff compared to the academic/teaching staff, felt the scheme was effective.

Towards a Universal Nigerian Social Security Schemes and What Lessons From Other Countries

A total 197 respondents representing 86.40% believed there was the need for a nationwide social protection scheme for the most vulnerable in the society. Out of this number, 55.33% and 35.53% were of the view that government budget and payroll & corporate taxes respectively, should provide the needed funding for a comprehensive national social security scheme.

5.0 CONCLUSION AND RECOMMENDATIONS

5.1 SUMMARY OF FINDINGS

Summary of the key findings of this study include:

1. The level of general awareness of the staff of the National Open University of Nigeria about CPS was high, but specific knowledge about some components of the scheme was relatively low.
2. Participation in the CPS is not by choice- it is mandatory. Hence all qualified staffs are contributors to the scheme.
3. Many respondents were not certain if deductions for CPS were remitted to their RSA.
4. The scheme was considered to be effective by a combined 73.24% of the respondents. Effectiveness of the CPS was determined by marital status and staff designations.
5. A vast majority of the respondents were of the view that there was the need for a nationwide social protection scheme for the most vulnerable members of the society, which should be funded mainly through government budget and payroll & corporate taxes.

5.2 CONCLUSION

Findings of this research revealed mixed results for awareness and effectiveness of CPS among staff of the National Open University of Nigeria (NOUN). Awareness of the scheme was generally high, even though knowledge about some of its components was relatively low. While perceived effectiveness of the CPS was high, the fact that a combined proportion of 65.79% of the respondents believed that the pension funds could be misappropriated by corrupt government officials and the PFAs, should prompt the relevant government agencies to take necessary steps to engender transparency and prudence in the management of pension fund assets.

CPS has been hugely successful, compared with the old pension scheme, but there is room for sustainable improvements that will guarantee that the scheme better serves the interests of contributors and the larger society.

5.3.1 RECOMMENDATIONS

The sustainable improvements needed in getting CPS to better serve the interests of contributors and the larger society will include the following:

1. ENHANCING THE AWARENESS LEVEL OF CONTRIBUTORS ON THE ELEMENTS AND PROVISIONS OF THE SCHEME

Each and every contributor to CPS should be given a copy whether soft or hard of the law establishing the scheme for reading and ease of reference. PenCom bulletin on current happenings in the area of pension administration in Nigeria should be produced and given to every contributor on a regular basis. The need for contributors to be informed and empowered cannot be overemphasized.

2. BRIDGING THE GAP BETWEEN EXPECTATIONS AND ACTUAL RECEIPTS OF CONTRIBUTORS AFTER RETIREMENT

What most contributors have heard and are expecting is that upon retirement, their monthly pension will not be less than 50% of their last monthly salary. This is true but confusing. Most contributors look forward to receiving 50% of their total salary but what is provided for is 50% of their basic salary. The difference between the two salary payments is often very significant.

3. LINKING CPS RETIREES TO NHIS

While most workers in Nigeria enjoy the benefits of NHIS, they are removed from the scheme on retirement. This need not be so. Retirees who are on CPS, can continue on NHIS after retirement if they so wish. The monthly contributions on the NHIS can be paid by the PFA from the pension of qualified and interested retirees. In this way, the health of retirees will not be jeopardized.

4. ENCOURAGING PRIVATE INDIVIDUALS TO PARTICIPATE ON CPS AS AN ALTERNATIVE TO INSURANCE

Provisions should be made in the law establishing CPS that will allow individuals to enroll on the scheme as an alternative to personal income and other forms of insurance. This will allow interested individuals to make regular monthly contributions and on getting to a certain age become eligible to an annuity or computed monthly payment based on the contributions they have made. This will guarantee them an income even when they are no longer working.

5. ENABLING RETIREES TO BORROW FROM BANKS AND OTHER INSTITUTIONS ON THE STRENGTH OF THEIR MONTHLY PENSION INCOME

Since CPS guarantees retirees regular income, they should be able to borrow based on the expected income to meet emergency situations. It is to be noted that banks these days give loans/facilities to customers based on their salary being paid through them. This gesture should be extended to retirees on CPS.

5.4 RECOMMENDATION FOR FUTURE RESEARCH

A national study on awareness, satisfaction and effectiveness should be carried out to ascertain the views of a greater proportion of Nigerians regarding CPS as well as to determine appropriate sources of funding for a universal social protection scheme for the most vulnerable members of the society.

Furthermore, to better understand the issues, it would be important for the study design to also examine other specific factors that influence awareness, utilization, satisfaction and perceived effectiveness of the scheme.

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FACTORS THAT AFFECT LOAN REPAYMENT PERFORMANCE OF SMALLHOLDER FARMER BORROWERS FROM MICROFINANCE INSTITUTIONS IN ETHIOPIA: A SURVEY STUDY OF AMHARA CREDIT AND SAVING INSTITUTION (ACSI)–FOGERA WEREDA, AMHARA

ASNAKE WORKU WUBIE
LECTURER
MEKELLE UNIVERSITY
MEKELLE

DR. TESHATSIONSAPHLUDESTA
ASSOCIATE PROFESSOR
MEKELLE UNIVERSITY
MEKELLE

RAHWA GEBRE TESFAHUNEY
LECTURER
MEKELLE UNIVERSITY
MEKELLE

ABSTRACT

This study was conducted with the objective of identifying and analyzing the factors of loan repayment performance of smallholder farmer borrowers of ACSI-Fogera Wereda. In order to achieve this objective, primary data collected from 136 smallholder beneficiaries of ACSI by using structured questionnaire. Probit model was used to identify and analyze the effect of explanatory variables on the dependent variable. A total of thirteen explanatory variables were included in the regression. Out of these, nine variables were found to be significant for the probability of being defaulter. The variables that have significant relationship with loan repayment performance of the micro finance credit users are: age, dependent ratio, saving habit, social ceremony expenses, on farm income, size of cultivated land, number of livestock, suitability of repayment period and interest rate had significant effect on the probability of being defaulter. The rest explanatory variables namely, sex, education level, off farm income and loan diversion had no significant effect on the probability of being defaulter. Hence, the institution should give follow up and supervision for young borrowers; motivate the savers to save more and attract the borrowers who do not save by creating awareness; increase the size of loan for the borrowers by considering the purchasing power of money; make flexible the repayment period according to the clients need. Finally, these results cannot be generalized to other ACSI branches. Further study may be conducted by considering sample respondents from all branches.

KEYWORDS

Loan, Microfinance, Performance, Probit model, Repayment.

1. INTRODUCTION

The central provision of microfinance is delivery of small loans (Beaudry, 2008). Microfinance has long-dated history. In 1720 Ireland launched loan funds to provide small interest free loan to the poor. The borrowers were come in group and they had to pay money back every week (Smoradova, 2010). In 19th century European state (German) followed the Irish example. That caused birth of credit and savings institutions of various types, mostly among rural and urban poor. In the early 1970s, a team of international aid workers association in Latin America issued small loans to a group of poor individuals in Brazil (Beaudry, 2008). The modern the microfinance idea was generated in Bangladesh by Yunus in 1947. The Grameen Bank of Bangladesh was founded by Yunus, and it provides a loan to the poor. The Grameen Bank defined microcredit as small loans given to the poor for undertaking self-employment projects that would generate income and enable them to provide for themselves and their families. Microfinance is an engine to alleviate poverty in developing countries, by providing a loan for the economic benefit of the poor to be participating in income generating activities (Sengupta & Aubuchon, 2008).

After 1947 onwards the Microfinance Institution (MFI) idea was disseminate in to different continents for 973 MFIs in 105 different countries across the globe (Sengupta & Aubuchon, 2008). Even if microfinance institutions are expanded, most of sub-Saharan Africa countries have very limited access to deposit and credit facilities and other related financial services which are provided by formal financial institutions. For instance, in Ghana and Tanzania, only 5-6 percent of the population has access to the financial sector (Basu, Blavy, & Yulek, 2004). To meet this unsatisfied demand a variety of microfinance institutions (MFIs) have emerged over time in Africa.

The Microfinance Sector in Western Africa has been existence in these countries for many years ago, about 30 years in Benin, Burkina Faso, Côte d'Ivoire and Togo and 10 years in Mali, Niger and Senegal. Today, there are over 400 MFIs in Western Africa (Roy, 2003).

The microfinance industry in Eastern Africa, especially in Kenya and Uganda, credit unions have not experienced the successful growth and reputation as Western Africa. In Kenya credit and saving cooperative organizations are started in 1965-70. The credit system were focused on cash crop products particularly coffee (Sherief, 2007). The Microfinance business started in Kenya around 1980 and was effectively supported by the government. Today, it involves a wide range of different players and institutions (Paur, 2006).

In Ethiopia microcredit started as a government and Non-Governmental Organizations (NGOs) motivated scheme (Anbes, 2003; Jemal, 2003). Following the 1984/85 severe drought and famine, many NGOs had started to provide microcredit along with their relief activities. The government also provided loans largely for the purchase of oxen through its rural finance. But the loan was not based on proper need of assessment (Getachew, 2006). During 1974-1991, the Development Bank of Ethiopia (DBE) and Commercial Bank of Ethiopia (CBE) were extending loans to cooperatives largely in response to the government's pressure. Since 1991 the CBE has continued to provide loans for the purchase of fertilizers and improved seeds on the basis of regional government guarantees (Alemayehu, 2008). The DBE has also been providing loans to micro and small-scale operators in some selected towns. Before the formalization of the MFIs, micro credit used to be provided in a fragmented and unplanned manner. The failure of the CBs to provide banking facilities and the unsustainability of the NGO's credit scheme leads the government to issue a legal framework for the establishment and operation of MFIs. The Ethiopian government started the formal microfinance industry in 1994/1995 with the government's the licensing and supervision of microfinance institution proclamation designed to encourage Microfinance institutions (MFIs) to extend credit to both the rural and urban poor of the country. And the government gives a special attention for microfinance to play a great role for reducing poverty in rural areas of the country (Anbes, 2003).

The objective of almost all microfinance institutions is poverty alleviation (Alemayehu, 2008). Ethiopia is one of the poorest countries in the world. The country plans to reduce poverty are central to the government's development agenda, and many policies, goals and objectives are focused on targeting the most disadvantaged households. Microfinance is considered by the government to be one of the important tools in fighting poverty. Microcredit was introduced in Ethiopia as part of poverty eradication programmes in the country.

According to National Bank of Ethiopia Annual Report, (2006/07), there are 28 licensed microfinance institutions in Ethiopia. Among the microfinance institutions, the Amhara Credit and Saving Institution (ACSI) is the largest in terms of its capital and number of clients. Amhara credit and saving institution started its operations in 1995 as a department of the Organization for the Rehabilitation and Development of Amhara (ORDA), a local non-governmental organization, and was licensed as a separate microfinance share company in April 1997. The primary objective ACSI is to improve the living standard of the population by increasing lending and saving services. ACSI has a good linkage with the government, to ensure faster reduction of poverty and the achievement of the millennium development goals in the country (Bamlaku, 2006).

According to Ojiako and Ogbukwa (2012), providing loans to the low income groups of the society play a great role in economic transformation and rural development. Providing loan is a crucial input to smallholder farmers to establish and expand their farm with the aim of increasing production, enhance food sufficiency and national income and it facilitates capital formation. Lack of adequate amount of credit is among the major factors of production reduction in the economy. To overcome this, ACSI makes predominantly agricultural loans using the group lending methodology. Credit risk in agriculture borrowers are higher, because the income of rural households depends on seasonality of agriculture and agriculture production may be affected by natural disasters like, flood, drought, plant diseases, and fluctuation of weather (Islam & Tenaw, 2009). In addition to this, loan repayment by the farmers to the financial institutions is influenced by high interest rate, climate change, price of input, amount of loan, miss-utilization of loan and death/ accident of loanee farmers (Mehmood, Ahmad, & Anjum, 2012). The reasons of low performance of loan repayment in rural borrowers are taking of loan without considering their capacity of repaying the loan and unwillingness to repay the loan (Girma, Tadesse, & Seid, 2004). Rural households are exposed to many sources of risks like, drought, pests, flooding, frost, livestock diseases; own illness, and products market access are all important reasons why households face difficulty during loan repayment (Dercon, 1999). Farming is a risky business. Crops may fail, weather condition may influence the productivity, and sale prices fluctuate and are difficult to predict when the crops are planted. If productivity is lower than expected, farmers may not be able to repay loans. Agricultural yields are generally uncertain, as natural hazards such as the weather, pests and diseases and other production calamities impact on farm output. During this situation, loan repayment performance of the borrowers may decline (Geihler, 2004).

According to Wolday (2010), under farming sector the variance of cash flows compared with alternative businesses is high, making lending relatively more risky. Also, all borrowers are similarly affected by the same macro-risks, especially climate, which increases the individual and portfolio risk of lenders. About 95 percent of agricultural production in Ethiopia is rain fed. If the climate is changed, this may affect agriculture production as well as loan repayment performance.

2. RELATED LITERATURE REVIEW

The term, microcredit refers to the process of lending small amounts of seed money to groups rather than to one person, without collateral, to help poor people to establish their own business (Desta & Asayehgn, 2010). Microcredit is the lending side of microfinance. Microcredit loans help the poor to be involved in income generating activities that allow them to accumulate capital and improve their standard of living (Robinson, 2001).

The term "microfinance" became popular and widely used with the establishment of Grameen Bank by Muhammad Yunus in the 1970s. Microfinance can be defined as financial instruments, such as loans, savings, insurance and other financial products that are tailored only to the poor. Microfinance is created in the economy for the economic benefit of the poor and to alleviate poverty (Mokhtar, Nartea, & Gan, 2007). As argued by Doocy, Norell, Shimeles, and Burnham, (2005), Microfinance is a logical approach to development because it functions at the grassroots level, can be sustainable, is capable of involving large segments of the population, and builds both human and productive capacity.

Smallholder farmers are defined in various ways depending on context, country and ecological zone. This explains interchangeable use of the term smallholder with small scale, resource poor and peasant farmer. According to Berdegue and Fuentealba (2011), smallholder farmers were defined as a sector made up of farms that are operated by farm families, using largely their own labor. Smallholder farmer's production, which generally occurs on plots of less than two hectares, is characterized by low yields, low quality, poor linkage, and little access to finance (Nagayets, 2005). The World Bank's rural strategy defined smallholders as those with a low asset base, operating less than 2 hectares of cropland (World Bank, 2003). In this study, smallholder farmers are farm households with access to means of livelihoods in land relying primarily on family labor for farm production to produce for self-subsistence and market sale.

By definition, agricultural growth is the primary source of poverty reduction in most agriculture-based economies. The expansion of smallholder farming can lead to a faster rate of poverty alleviation, by raising the incomes of rural cultivators and reducing food expenditure, and thus reduces income inequality (Salami, Karma, & Brixiova, 2010). Credit is a major component of agricultural and rural development programmes and also considered as an important instrument in helping small farmers increase their income (Mohamed, 2003).

Alleviation of poverty and promotion of economic development can therefore be facilitated through providing credit to the poor (Jemal, 2003). Credit to smallholder farmers can be a most effective way to promote food production and household food security (Nur, 2006).

Based on past literature, Nawi (2010), the factors affecting repayment performance of MFIs can be divided into four factors namely individual/borrowers factors, firm factors, loan factors and institutional/lender factors. Though Derban, Binner, and Mullineux (2005) grouped the factors of loan repayment into three main categories. Such as inherent characteristics of borrowers and their business, characteristics of the lending institution and suitability of the loan product to the borrower, and the systematic risk from the external factors, like the economic, political and business environment in each borrower operations.

Likewise, Mohamed (2003), most of the schemes or programmes that are involved in the provision of credit services to smallholder farmers have experienced poor repayment performance. The main reasons for this situation include attitude of people towards loans from government sources, poor loan appraisal systems, weak capacity, marketing problems, enterprise failures due to technical reasons and natural disasters, poor loan follow-up systems, and lack of collateral/security.

Samuel (2011), also divided the causes of default into two categories: (i) weaknesses from the lender side such as absence of post-disbursement monitoring system, lack of technical assistance given to the microfinance recipients, inexperienced field workers, burdensome immediate weekly payment system, lack of common accessible database of the microfinance recipients. (ii) moral hazard problem on the borrower side such as hiding business, family member's illness, lack of, over-stretched financial commitments due to multiple borrowings from MFIs: amid the increased competition among the MFIs and the absence of a common database to keep track of the microfinance recipients, many recipients borrow from more than one MFIs, resulting in the difficulty to meet the multiple payment installments.

According to Olomola (1999b), the delinquency and default problems observed among the borrowers can be categorized in four categories: (i) Borrowers related causes, (ii) causes related to loan utilization, (iii) lender related causes and (iv) extraneous causes.

In summary, the factors influencing loan repayment capacity of the borrowers can be classified into three broad factors: The factors are socio-demographic characteristics (age, sex, dependent ratio, education level, saving habit) of the borrower, socio-economic activities (on farm income, off farm income, size of land, social ceremony expenses) of the borrower and institution related factors (interest rate, repayment period, collection procedure, credit approval / screening mechanism).

In microfinance institutions credits are provided in group. The main characteristic of group lending is joint liability. This means that all group members are treated as being in default if any one member of the group does not repay the loan. In group liability, there are both positive and negative effects. The positive effect is that the successful borrowers may repay the loan of partners who obtain sufficiently poor returns to make repayment profitability. The negative effect arise if the entire group defaults, when at least some members would have repaid had they not been saddled with the weight of liability for their partners loans (Besley & Coate, 1993).

According to Geihler (2004), in any lender-borrower relationship, there is a general problem of moral hazard that is the result of specific personal characteristics and decisions of each individual borrower. It is obvious that the lender does not have the same information as the borrower. Several factors may undermine the repayment performance of group lending under joint liability. The risk of loan default by an individual is shared by his or her peers, a member may choose a riskier project compared to that in the case of an individual contract, and may count on other members to repay his or her loan. To avoid this adverse selection of risky projects, the peers can opt to assess the riskiness of each other's projects (Zeller, 1996).

Urban homogenous groups with good leadership and training and prior history of working in groups had the highest probability of repaying the loan. However, the domino effect and matching problem were significant factors influencing loan default, creating a destabilizing effect on overall repayment (Paxton, 1996).

On one side, borrowers might lose their capacity of repaying the loan or they might borrow without considering their capacity of repaying the loan. Even though the borrowers have the ability to pay, in some cases they are not willing to pay. On the other hand, the lenders might not get adequate information on about the borrowers; they simply provide credit without knowing the character of the borrower this may be the cause of low performance of loan repayment (Girma, Tadesse, & Seid, 2004).

Loan repayment performance is affected by a number of socio-demographic and socio-economic factors. While some of the factors positively influence the loan repayment, the other factors are negatively affecting the repayment rate. Regarding to the loan repayment performance of borrowers several studies have been conducted in many countries by different authors. Some of the studies are summarized below.

TABLE 1: EMPIRICAL STUDIES IN ETHIOPIA

Author (s)	Coverage	Methodology	Results
Abebe (2011)	East Shoa Zone, Oromia Region, Ethiopia	Tobit model was employed	The result of the model showed that family size, livestock ownership, on-farm income, non-farm income and saving habit were statistically significant factors influencing timely loan repayment performance positively
Jemal (2003)	Oromia Credit and Savings Share Company in Kuyu, Ethiopia	Employed a logit model	The result showed that education, income, loan supervision, suitability of repayment period, availability of other credit sources and livestock were important and significant factors that enhance the loan repayment performance, while loan diversion and loan size were found to be significantly increase loan default.
Abreham (2002)	Around zeway, Ethiopia	Employed a tobit model	The result showed other source of income, education, and work experience related economic activities before the loan affected loan repayment positively. On the other side, extended loan repayment period was influenced the repayment performance negatively.
Samuel (2011)	Microfinance Industry in Ethiopia	Probit model	Found out that education, income, loan supervision, suitability of repayment period and availability of other credit sources were important and significant factors that enhance the credit repayment performance, while credit diversion and credit/loan size were found to be significantly increase credit default.
Berhanu (2005, as cited in Fikirte, 2011)	North Gondar, Ethiopia	Employed the Probit model. A total of 17 explanatory variables were considered in the econometric model.	Out of these seven variables were found to be significantly influence the repayment performance. These were land holding size of the family, agro-ecology of the area, total livestock holding, number of years of experience, number of contacts, sources of credit and income from off-farm activities. The remaining variables (family size, distance between main road and household residence, purpose of borrowing, loan amount and expenditure for social festivals) were found to have insignificant effect on loan repayment performance of smallholder farmers.
Tnsue (2011)	Tigray	Probit model	He found that, sex, age, educational status, loan size, occupation, supervision, number of dependents supported by borrower, and income from the loan activities financed by institution were significant determinants of the probability of loan repayment.

TABLE 2: GLOBAL EMPIRICAL STUDIES

Kohansal (2009)	Iran	Employed logit model	The result indicated that farmer's experience, income, received loan size and collateral value have positive effect while loan interest rate, total application costs and number of installment implied a negative effect on repayment performance of recipients. Comparison the elasticity of significant variables indicated that loan interest rate was the most important factor in the model. Farming experience and total application costs were the next factors, respectively.
Oladeebo, & Oladeebo (2008)	Nigeria	Used ordinary least square multiple regression analysis	The results showed that amount of loan obtained by farmers, years of farming experience with credit use and level of education were the major factors that positively and significantly influenced loan repayment. However, age of farmers influenced loan repayment negatively but significantly. However, other socio economic factors which did not have significant influence on loan repayment Were gross farm income earned by respondents and cultivated farm size.
Mehmood et al. (2012)	Pakistan	Descriptive statistics	The result showed that miss-utilization of loans, high interest rate and change in business/residential place of the borrowers caused delay in repayments of agricultural credit.
Afolabi (2010)	Oyo State, Nigeria	Used ordinary least square multiple regression model	He obtained that the amount of loan granted to farmers, farming experience, farm size, gross farm income, interest rate charged and non farm income were the major significant socio-economic characteristics that determine loan repayment. However, family size and non-farm expenses had negative influence on the level of loan repayment.
Onyeagocha, Chidebelu, Okorji, Ukoha, Osuji, & Korie (2012)	Southeast states of Nigeria	Multiple regression	Among the determinants of loan repayment of microfinance institutions were shocks, training duration, loan size; however, and credit officer's experience had negative impact on loan repayment.

The above different authors reported different outcome on determinants of loan repayment. Among the demographic factors age, sex and education had significant and positive impact on loan repayment (Tnsue, 2011), and (Abreham, 2002). But Oladeebo, & Oladeebo (2008), concluded that age had negative impact on loan repayment. Related with economic factors, farming experience, farm size, gross farm income and non farm income had significant factor on loan repayment (Afolabi, 2010), (Berhanu, 2005, as cited in Fikirte, 2011)) and (Abebe, 2011). But, on Oladeebo, & Oladeebo (2008) findings, there is no significant impact on loan repayment. Thus, this difference calls a research to examine the relationship among the factors for loan repayment and the loan repayment performance.

3. STATEMENT OF THE PROBLEM

According to Samuel (2011), the default rate of ACSI is greater than Addis Credit and Saving Institution (ADCSI), because ACSI provides large share of loan to the farmers. According to Abreham (2002), borrowers involved in the agricultural sector are more defaulters compared with other sectors like industry and service. Likewise Jamal's (2003) research result shows that urban borrowers have better repayment rate than rural borrowers.

One of the key issues facing the micro finance industry today is the high percentage of loans that are in arrears. In order for micro finance institutions (MFIs) reach scale and move towards operational and financial sustainability, arrears rate must be reduced. High delinquency rates in credit programs for the poor were often blamed on poor market infrastructure, deficient business income and client's misallocation of loan funds in to consumptions activities (Rural Financial Intermediation Program [RUFIP], 2005)

According to annual report of the ACSI-Fogera Wereda, an amount of birr 15,916,837.44 was disbursed in 2009 from this 298,629.18 birr is the total contaminated loan and 232,592.90 birr is the net amount which is not collected within the year. Likewise, during 2010 & 2011 the branch disbursed 13,003,363.59 and 12,602,684.02 amount of birr, but 403,950.40 and 871,972.57 birr is the net contaminated loan and 146,446.86 and 166,218.94 birr was uncollectible during the period, respectively (Fogera Wereda, 2011).

When we see the disbursed loan in relation to contaminated and the net arrear, the total disbursed loan has decreased from time to time but the total contaminated and the net arrear shows an increasing. Thus, the study has tried to conduct a study on factors for loan repayment performance of smallholder farmer borrowers from microfinance institution in ACSI-Woreta Sub-Branch.

4. OBJECTIVE OF THE STUDY

The principal aim of the study was to identify and analyze the major factors for loan repayment performance of smallholder farmer borrowers in Amhara Credit and Saving Institution (ACSI)-Fogera Wereda. Its specific objectives were:

1. To identify the determinant factors for loan repayment performance of ACSI borrowers
2. To analyze the relationship between loan repayment and factors of loan repayment

Accordingly, the following research hypotheses were formulated to test the relationship among the factors of loan repayment and loan repayment performance.

1. The socio-demographic factors of the borrower (age, sex, education, dependency ratio) have statistically significant effect on loan repayment.
2. The socio-economic activity of the borrower (on farm income, off farm income, saving habit, size of cultivated land, social ceremony expense) have statistically significant factor on loan repayment.
3. Institutional related factors (interest rate, repayment period, collection procedure, credit analysis procedure) have statistically significant impact on loan repayment.

5. RESEARCH METHODOLOGY

5.1. RESEARCH DESIGN AND STRATEGY

The study used quantitative (survey) research approach. The primary data used to analyze the effect of the factors of loan repayment on loan repayment performance of the smallholder farmers.

5.2. DATA TYPE, SOURCE, AND COLLECTION

Primary data was used in this study. The primary data was collected by questionnaire and interview. The following data were obtained from the respondents:

- ✓ Borrower demographic characteristics like age, sex, level of education, household size
- ✓ Socio-economic characteristics of the borrowers such as cultivated land size, on farm income, non-farm income, saving habit, units of livestock, social ceremonies
- ✓ Institutional related issues such as interest rate and repayment period

5.3. SAMPLING DESIGN

Simple random sampling was applied to select the sample respondents from the whole population. The reason for choosing this sampling technique was that there was available list of borrowers from rooster or master of register book of the ACSI's Fogera branch and the homogeneity characteristics on culture and language of the target households. The total number of farmer borrowers that were getting service in ACSI, at Fogera Wereda was 5027.

To determine the sample size from the total population, Yamane (1967) formula was applied. Confidence level of 92% and 8% level of precision was considered in order to select manageable sample size. Accordingly, the study determined 150 borrowers as a sample size from the 5027 households; of which 136 questionnaires were filed and returned.

5.4. DATA PROCESSING AND ANALYSIS TECHNIQUES

Probit regression model was used to analyze the primary data which was collected from the respondents. Probit model is one of the regression models that are appropriate for dichotomous dependent variable. Besides, it is simple to get the marginal effect of the coefficients. To identify factors that influence the ability of the borrowers to repay the loan to financial institutions, probit model is appropriate (Sarkar & Thomas, 2010).

Loan repayment is dependent variable, whereas socio-demographic, socio-economic and loan related factors of the borrowers are independent variables. Based on the repayment performance of the borrowers, the study classified the dependent variable in to two groups, such as non-defaulter and defaulter. In this case values of the dependent variables are 1 and 0. 1 stands for non-defaulter if the borrower paid fully and 0 stands for defaulter if the borrower not paid fully. Hence, loan repayment is dichotomous variable.

The dependent variable has binary results, which are non-defaulter (1) and defaulter (0). The equations of loan repayment factors of i^{th} borrowers were drawn based on the assumption that the borrower makes the payment on time or not. The borrowers that make payment on time called non defaulter (1). On the other side, the borrowers that do not make payment on time are called defaulter (0). Based on unobservable utility index (U_i) and U_i is associated with predictor variable X_i . According to the linear regression equation, the dependent variable explained by independent variables is as follows:

$$U_i = \beta'X_i + \epsilon \quad (1)$$

Where U_i = utility index, β = Vector of coefficients for variables associated with loan repayment, X_i = Vector of explanatory variables, ϵ = error term (Maddala, 1983). Thus, the model for loan repayment can be constructed as follows:

$$Y = \alpha + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta_4x_4 + \beta_5x_5 + \beta_6x_6 + \beta_7x_7 + \beta_8x_8 + \beta_9x_9 + \beta_{10}x_{10} + \beta_{11}x_{11} + \beta_{12}x_{12} + \beta_{13}x_{13} + e_i \quad (2)$$

Where y = loan repayment performance of borrowers; α = constant; β = coefficient of explanatory variable; x_1 = age of respondents; x_2 = sex of respondents; x_3 = education level; x_4 = dependent ratio; x_5 = saving habit of the respondents; x_6 = social ceremony expense; x_7 = on-farm income; x_8 = Off-farm income; x_9 = size of cultivated land; x_{10} = number of livestock owned

x_{11} = loan diversion; x_{12} = suitability of loan repayment period; x_{13} = interest rate; and e_i = error term.

To draw the regression relationship of the unobservable Utility index with the decision of loan repaying, it was assumed that:

$$R_i = 1, \text{ if } U_i > 0 \text{ (borrower repay fully); or } R_i = 0, \text{ if } U_i \leq 0 \text{ (borrower did not repay fully); or } \dots \quad (3)$$

Before running the probit model, the model was tested for existence of multicollinearity and heteroskedasticity. Multicollinearity is a serious problem if the VIF is greater than 10. But, the variables measured by VIF, value of the explanatory variables are not greater than 10. Hence, they haven't Multicollinearity problem; the VIF result found to be below 10. Besides, heteroskedasticity problem was checked, but there is no problem, i.e., the probit regression model was tested for heteroskedasticity through Breusch-Pagan heteroskedasticity test and the result showed that Prob > chi2 was 0.2547 (25.47%), which is greater than that of the significance level of 1%, 5%, and 10%. This result indicated that there is no heteroskedasticity problem and there is equal variance among the error terms and the model properly specified and well fitted.

Description of the independent variables together with their expected signs:

AGE (AG)

At younger stage, people have ability to work and they expect to generate a higher income in the future. But they have not stability and business experience. On the reverse, people become older and older they develop more experience to run a business and have stability. They feel sense of responsibility; this may seem older people positively related to loan repayment or negatively related with default. Older farmers are less capable of carrying out physical activities while younger ones are capable. Younger farmers are more ready to adopt modern technology. Thus because younger people may be more adaptive and more willing

than older people to try new methods, age is expected to be an influencing factor. Farmers get older, they often become more conservative and reluctant to accept risk, they work fewer hours and have fewer non-farm employment opportunities. It may have negative effect on loan repayment and positive impact on default rate.

SEX (SX)

Most studies concluded that female borrowers are more payer than males. When we see Grameen Bank loan repayment performance, it is reported that female borrower's repayment rate was higher than their male counterparts (Khandker et al., 1995). This may not be true always, female in rural area not that much independent to run their business this may not be facilitate loan repayment activities of females on time. For instance, a research which was conducted in Ghana (Adusei, 2011), the loan repayment experiences of female borrowers are not better than their counterparts. Therefore, it may have positive impact on loan default.

Education (EDU)

It assumed that as the borrower more educated, he/she could acquire more knowledge so that his/her efficiency can allocate resources properly in to different productive uses than the illiterate ones. Therefore, it may affect default rate negatively.

Dependency ratio (DR)

If the family size is large, the household has more labor that works the farm. If the family members are old enough cannot perform the farm work as well. On the other hand, if the family members are children, they unable to work, farmers with large dependent may be less successful than small number of families because it increases the dependency ratio. Dependency ratio may have a positive impact on default rate.

Saving habit (SH)

If the Farmers adopt saving from their proceeds for consumption this increases the repayment of loan during bad harvesting time. Therefore, it has negative effect on default rate.

Social ceremony expenses (SCX)

If the social ceremony related expenses are more it may affects loan repayment performance of the borrowers negatively or default rate positively.

On-farm income (OFINC)

The higher the on-farm income, the greater the repayment capacity of the farmers and the higher the probability to be non-defaulter and vice versa. Therefore, this variable may affect default rate negatively.

Non-farm income (NFINC)

It refers the amount of income generated from activities other than crop and livestock productions. These include: petty trading, metal work, homemade drinks, handicraft (weaving, tannery). These additional sources of income may help the farmers to repay the loan during bad harvesting time or price agriculture product fall. During this time, farmers who practice non-farm activities can easily repay their loan on time than those who don't involved in non-farm income. Therefore, non-farm income is a very important source of cash for farm households especially to purchase inputs and repay their credits. It is assumed that the variable has a negative impact on credit default.

Size Cultivated land (CL)

It refers to the total cultivated land holding of the household. It is argued that farmers with large farm size have better chance of more production. This leads to more income. Hence, this variable is hypothesized to have negative impact on credit default.

Number of livestock owned (NLIV)

In farming area livestock are part of the operation. It may serve as a proxy for oxen ownership, which is important for farm production. It is expected that this variable have a positive influence on loan repayment performance or negatively influence default rate.

Loan diversion (LD)

The impact of this Variable depends on the use of the diverted loan. If the borrower used for productive purposes than the intended ones then repayment will be increase. If on the other hand the loan is diverted to non-productive uses, it will have a negative impact. Therefore, it may have positive impact on default rate.

Suitability of Repayment period (SRP)

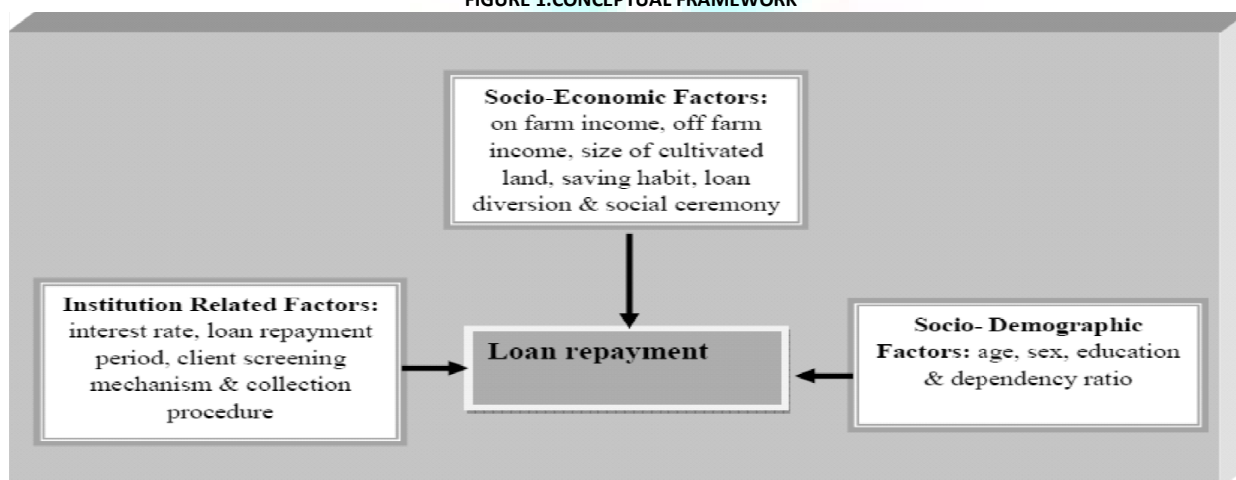
It is expected that borrowers who find the repayment period suitable, perform better repayment of loan. Therefore, this variable may affect loan default rate negatively.

Interest rate (INTRT)

If borrowers found the interest rate that they pays for the loan they took is too high or high, loan repayment could be very Pinching, especially if the income generated from the loan is not at least equal or greater than the principal plus interest payments. Therefore, the probability of being defaulter is can be high. So it is expected a positive sign for default.

Finally, the following conceptual framework was formulated based on the above variable definitions.

FIGURE 1. CONCEPTUAL FRAMEWORK



Source: Adapted from Afolabi (2010) and Kohansal (2009)

6. RESULTS AND DISCUSSIONS

Probit model was used to identify the factors of loan repayment performance of the borrowers. It is important, especially for analyzing the dichotomous dependent variable; it focuses on the significance impact of each variable on the dependent variable, i.e., loan repayment; the probability of getting a 1 or a 0.

TABLE 3: MAXIMUM LIKELIHOOD REGRESSION OF A ROBUST PROBIT MODEL FOR LOAN REPAYMENT

age	-1.690054	.954441	-1.77	0.077***
sex	-.5836484	.7800214	-0.75	0.454
educ.	-.3582589	.6890249	-0.52	0.603
dpdtratio	.6200687	.3359138	1.85	0.065***
Savhabit	-1.246949	.7490653	-1.66	0.096 ***
scexp	.0002038	.0000757	2.69	0.007*
onfarmincom	-.0001292	.0000527	-2.45	0.014**
offfarmincom	-.0000164	.000131	-0.13	0.900
sizclvtland	-1.871395	.7642926	-2.45	0.014**
livestock	-.4175016	.1471115	-2.84	0.005*
Loandiv.	-.1637385	.9314314	-0.18	0.860
suitrepayprd	-1.602752	.940295	-1.70	0.088 ***
intrate	1.380368	.7838419	1.76	0.078***
constant	6.529053	4.051725	1.61	0.107

*significant at 1%, **significant at 5%, ***significant at 10%

Source: Own Computation (2013)

TABLE 4: RESULT OF MARGINAL EFFECT

Probability Of Default	dy/dx	Robust Std. Err.	z	P>z
age	-.1576905	.954441	-1.77	0.077***
sex	-.0544573	.7800214	-0.75	0.454
educ.	-.0334273	.6890249	-0.52	0.603
dpdtratio	.0578555	.3359138	1.85	0.065***
Savhabit	-.1163466	.7490653	-1.66	0.096 ***
socexp	.000019	.0000757	2.69	0.007*
onfarmincom	-.0000121	.0000527	-2.45	0.014**
offfarmincom	-1.5306	.000131	-0.13	0.900
sizclvtland	-.1746104	.7642926	-2.45	0.014**
livestock	-.038955	.1471115	-2.84	0.005*
Loandiv.	-.0152776	.9314314	-0.18	0.860
suitrepayprd	-.1495448	.940295	-1.70	0.088 ***
intrate	.1287952	.7838419	1.76	0.078***

*significant at 1%, **significant at 5%, ***significant at 10%

Source: Own Computation (2013)

The estimates of probit model and the marginal effect (i.e., dy/dx) of each significant variable are shown in Table 3 and Table 4 above, respectively. A total of 13 independent variables were incorporated in to the probit model. Out of these, 9 variables were found to be significantly influence the probability of being defaulter at different significance level. The variables that have significant relationship with loan repayment performance of the micro finance credit users are: age, dependent ratio, saving habit, social ceremony expenses, on farm income, size of cultivated land, number of livestock, suitability of repayment period and interest rate had significant effect on the probability of being defaulter. However, the rest 4 explanatory variables namely, sex, education level, off farm income and loan diversion had no significant effect on the probability of being defaulter.

Age of the borrowers is one of the variables that were thought to affect loan repayment performance of the borrowers by different authors. Accordingly, age of the borrowers had effect on the probability of being loan defaulter. This independent variable significantly affects loan repayment performance at 10% significant level. This means that age increased by one year the probability of default rate reduced by 15.77%. It implies the age of the borrowers become older and older, they might get business experience on their activities and they take the responsibility of loan repayment. When we see the relationship between age and default rate, they have inverse relation, this may not be continued. As age increase the working ability of the borrowers' may decline, and it may be become a cause for default, by considering this the microfinance institution not provide loan for the borrowers age more than 60 years old.

As expected, dependent ratio influenced positively and significantly at 10% the probability being defaulter. A unit increase in dependence ratio also increases the rate of defaulter by 5.79%. This result shows that households with large dependent ratio there is large number of consumer and small number of productive labor force, the probability of default is high.

Saving habit of the respondent influenced the loan repayment performance negatively and significantly (significant at 10%). Sampled households who have saving behavior reduce the loan default by 11.63%. This indicated that households who save their money had ability to repay the loan on time than households who do not save.

Social ceremony expense affect the loan repayment performance of the households negatively and the probability of default positively and significantly (significant at 1%). One birr expense on social ceremony increases the probability of default by 0.002%. This implies that social ceremony expenses are unproductive; such like expenses reduces saving of individuals which may also lower investment, therefore, the loan repayment performance of the sampled households affected negatively.

On farm income is economic variable that influences loan repayment. As the result shown in the table, on farm income affects the probability of being defaulter negatively and significantly (at significant 5%). This means, one birr increase in on farm income, the probability of default rate reduces by 0.0012%. This indicated that the households that generated higher income from their farm activities give more emphasis to repay the loan.

Size of cultivated land (ha) is another socio-economic variable which influences loan repayment. As the probit model regression indicated, size of cultivated land had an impact on the probability of being defaulter negatively and significantly (significant at 5%). This means that one hectare (four tsmad) increase in cultivated land reduces the default rate of the borrowers by 17.46%. In the country side the main property is land, households who have large size of cultivated land had a probability to produce more agriculture products and the major source of revenue for rural households are by selling of farm out puts, because of this large cultivated land-more agriculture production and more income-low loan default rate.

Number of livestock are influenced the probability of households being defaulter negatively and significantly (significant at 1%). A unit increase in livestock there is also increase the probability of non-defaulter by 3.9%. This means that, in rural area livestock is one source of income and it is considered as security against crop failure. In addition to this, a proxy for number of oxen which is owned by the households and Farmers who had more livestock, can plough their land properly and can produce high yield- high agriculture income – easy to repay the loan. Suitability of loan repayment period and interest rate are institution related factors that affect loan repayment performance of the households. Both affects default rate at 10% significant level. But suitability of loan repayment period affects probability of default negatively and interest rate positively.

In summary, number of livestock, on farm income, size of cultivated land, age, suitability of repayment period and saving habit influenced the probability of default negatively and significantly. Likewise, social ceremony expense, dependent ratio and interest rate influenced default rate positively and significantly. The most serious factors of default are social ceremony expense and number of livestock next to on farm income and size of cultivated land.

7. CONCLUSIONS AND RECOMMENDATIONS

7.1. CONCLUSIONS

Microfinance programs are now a key objective of poverty alleviation strategies by providing loan for poor part of the society. Smallholder farmers are part of the poor society that gets loan from the microfinance institutions. Because of this, the study was intended to analyze factors for loan repayment performance of Fogera Wereda smallholder farmer borrowers. To study the problem socio-demographic, socio-economic and institutional factors were included in the probit model. The primary data were collected from 136 respondents of the 150 samples; and probit model was used for analysis. According to the probit model result age, dependent ratio, saving habit, social ceremony expenses, on farm income, size of cultivated land, number of livestock, suitability of repayment period, interest rate had statistically significant impact at different significant level on the probability of being defaulter. The probit result is summarized in Table 5 below.

TABLE 6. PROBIT RESULTS ON THE HYPOTHESIS, AND EXPECTED AND PROBED SIGNS

Hypothesized relationship	p>z	Result of the analysis	Expected sign	Probed sign
Age vs. loan default	0.077***	Accepted	+	-
Sex vs. loan default	0.454	Rejected	+	-
Education vs. loan default	0.603	Rejected	-	-
Dependent ratio vs. loan default	0.065***	Accepted	+	+
Saving habit vs. loan default	0.096 ***	Accepted	-	-
Social ceremony expense vs. loan default	0.007*	Accepted	+	+
On farm income vs. loan default	0.014**	Accepted	-	-
Off farm income vs. loan default	0.900	Rejected	-	-
Size of cultivated land vs. loan default	0.014**	Accepted	-	-
Livestock vs. loan default	0.005*	Accepted	-	-
Loan diversion vs. loan default	0.860	Rejected	+	-
Suitability of repayment period vs. loan default	0.088 ***	Accepted	-	-
Interest rate vs. loan default	0.078***	Accepted	+	+

*significant at 1%, **significant at 5%, ***significant at 10%

Source: Own Computation (2013)

7.2. RECOMMENDATIONS

The following recommendations are forwarded based on the research finding so that the ACSI should consider them in its loan management.

- The institution should give special attention for young borrowers by continuous follow up and supervision. There are no continuous supervisions of clients by the institution; rural borrowers are live far from the institution and due to large number of clients.
- The institution should motivate the savers to save more and attract the borrowers who do not save by creating awareness about the importance of saving and by providing incentives like high interest rate.
- loan size of the borrowers are approved by the institution, most borrowers said that the loan size is not enough for intended purpose, because of this the institution should increase the size of loan for the borrowers by considering the purchasing power of money and the size of loan should be flexible.
- The repayment periods for rural borrowers are inflexible, and it is not match with the cash availability of the client. During the repayment period agriculture products are not demanded by the market and also all products are not harvested. By considering this the institution should make flexible the repayment period according to the clients need.
- In addition with the existing client screening criteria the institution should include conditional analysis like market and environment analysis.
- There is also unwilling borrowers to repay the loan, thus the institution should take series follow up and supervision on such clients.

7.3. LIMITAION AND SUGGESTION FOR FURTHER STUDY

The study targeted only Fogera Wereda smallholder farmer microfinance borrowers. Its result helps managers have a quick look at the factors that determine loan repayment performance. It cannot be generalized to other ACSI branches. Therefore, further study may be conducted by considering sample respondents from all branches in order to have a complete picture on the determinant factors for loan repayment.

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IMPACT OF EXPORT EARNING INSTABILITY ON ECONOMIC GROWTH

DR. FIROZ ALAM
ASST. PROFESSOR (ECONOMICS)
COLLEGE OF ADMINISTRATION AND FINANCE
SAUDI ELECTRONIC UNIVERSITY
SAUDI ARABIA

ABSTRACT

This study tries to investigate the impact of export earning instability on economic growth based on log linear econometric model which derived from cob-douglas production function by including export variable. To do this time series data is taken. The empirical result of the long run model explains that export earning instability affect economic growth negatively, but the short run model prevails negative sign however its impact is statistically insignificant. Diversification of export items and improving quality of our export products should be taken as remedial measure in order to achieve progress in the sector.

KEYWORDS

export earning, economic growth.

1. INTRODUCTION

Foreign trade is assumed one of the crucial factors to determine growth in economy of a country. In the year 2000, in sum trade (both exports and imports) are a significant of the GDP of African countries even if the share of Africa's trade in the world is extremely low, being about 2 percent of the world trade. And that little amount constitutes, a significant proportion, about 60 percent of its GDP (Vylder, 2006). If we take particularly Ethiopia, in 2006 the share of Ethiopia's export in the world was very low and it is around 0.01 percent and it constitutes 15.8 percent of its GDP (WTO, 2007; WB, 2007).

Todaro and Smith (2009) suggest these countries' economies highly rely on agriculture and other primary products for most of their export earnings. Africa's poor export performance and its failure to integrate in world trade are associated with poor export performance and lagging development. Their export commodities are concentrated on few agricultural commodities which vulnerable to shocks (Alemayehu, 2006; Bacchatta, 2007; Biggs, 2007; UNTCAD, 2008).

Abay and Zewdu (1999) stated that there is a considerable discussion on the problem of export earning fluctuation and its impact on different primary commodity producing countries. Developing countries, which are heavily dependent on earnings from the sale of primary commodities and concentrating on small range of commodities and market outlays to finance much needed capital good imports, have shown substantial concern with the instability of their export proceedings. In the large part this concern emanates from the fact that commodity prices and consequently foreign exchange earnings have exhibited a tendency towards secular instability. It is often argued that these fluctuations constitute a series of different economic growth.

Ethiopia heavily depends on the exports of few primary commodities whose international price tend to be unstable (Abay and Zewdu, 1999) and (Alemayehu, 1999). And lastly, the country's imports almost all of its intermediate inputs, fuel and capital goods, which are deemed to be so critical for the country's growth process (Amin, 2001)

If export earnings derived from mainly agricultural products are relatively subjected to large fluctuations, then examining the impact of instability on economic growth is relatively critical for Ethiopia.

2. THEORETICAL ISSUES AND EMPIRICAL EVIDENCE**2.1 LINK BETWEEN EXPORT EARNING INSTABILITY AND ECONOMIC GROWTH**

There are different views regarding the link between export earning instability and economic growth. Ozler and Harrigan (1998), stated that there are two views about the impact of export earning instability on economic growth. The first view is the negative impact of export earning instability on growth. The most likely explanation of the negative correlation between export volatility and growth relies on the lack of perfect insurance markets, especially in the absence of ability to smooth out fluctuations of export recites. Developing economies would face occasional difficulties in importing intermediate and capital goods that are highly needed for production. In such economies risk-averse private investors are likely to produce their investment or the ex-post efficiency of the existing investment is likely to be reduced. The second view is that export instability may encourage growth with risk averse individuals in uncertainty about the future income will have a positive impact on saving by increasing precautionary demand for saving. This in turn will ultimately lead to high investment and growth (Ozler and Harrigan, 1998).

According to Brempong (1991) it is not possible to make any prediction about the nature of relationship between export instability and growth rate of output. On the other hand it is possible that incomes in least developed countries are already so low that any reduction in export earning leads to reduction in saving in order to maintain subsistence living standards in these countries. Under such circumstances export instability leads to reduction in investment and hence reduction in growth rates of output. Also the relationship between export instability and economic growth rates will depend on producers' aversion to risk. A risk-averse nation or producer invests resources to insure itself against fluctuations in export, building foreign exchange reserve and so on. While a risk loving or risk neutral nation or producer will not devote its resources to and insurance scheme. The sign of instability variable can therefore only be determined empirically *ibid*.

Brempong, (1991) argue that Instability in export revenues implies instability in government revenue, hence adversely affecting the implementation of development plans and completion of development projects. Moreover, he stated also a large share of government revenues to finance development is derived from export taxes in African countries. An alternative reliance on unstable export revenues to finance development projects in these countries is deficit financing, given the lack of any organized capital market, which means borrowing from the central bank and monetizing the deficit. This leads to inflation, distortion of relative prices and slow economic growth (Brempong, 1991)

Since developing countries' export mainly primary products which vulnerable to shocks and their economic growth suffers from deleterious effects of export instability they experience the detrimental effect of export instability have been attributed to either the price instability of primary products or the resulting fluctuations of export proceeds (Galazcos, 1984; ci, Mulugeta, 2007).

2.2 EMPIRICAL EVIDENCES

In this section, we review different studies made previously on the relationship between export instability and economic growth. There are studies that are conducted by different authors related with export earning instability and economic growth which shows different results and no consensus has been reached. Some are highlighted as follows. To begin with Knudsen and Parnes (1975), using a transitory index to measure instability, find that marginal propensity to consume out of permanent income is much related to export instability. By taking average data that are collected from 28 developing countries for the period 1958-68, they obtained that there is positive relationship between the two variables. Authors who found positive relation between the two variables, like Knudsen and Parnes and MacBean, opine that if we assume risk averse behavior, uncertainty about export earnings can lead to a reduction in consumption and in turn, and increase in saving and investment and thus economic growth.

The conventional measure of export instability, on the other hand, leads to opposite conclusion that export instability has a negative impact on economic growth. Studies such as Ozler and Harrigan (1988) conducted a research by regressing GDP growth rates on export instability index using cross-section data and they found negative correlation between export instability and economic growth.

Brempong (1991) used average data from 1960-84 for 34 sub Saharan African countries and by tacking cross-section data and applying the production function frame work and three different measures of export instability has reached a result that no matter export instability is measured; it has a negative effect on economic growth.

Sinha also attempted study on the effects of export instability on economic growth using recent time series econometrics techniques for nine Asian countries namely, India, Japan, Malaysia, Myanmar, Pakistan, Philippines, South Korea, Sri Lanka and Thailand. Among these eight are developing and one developed country, Japan. For comparison purpose he used time series data to study the relationship between export instability and economic growth and variety of results were found i.e. for India mixed, for Japan, Malaysia, Philippines and Sri Lanka evidences suggest negative relationship, and for Korea, Myanmar, Pakistan and Thailand positive relationship obtained between export instability and economic growth. He concluded that results show that cross-section studies which lump together may lead to misleading conclusion because results differ among countries.

The other study is the work of Mulugeta (2007) on the effect of export earnings fluctuation on economic growth in Ethiopia. The study is based on the general production function in which exports are taken as one of the inputs in the production process. "Does export earning fluctuation adversely affect economic growth in Ethiopia?" is his research question. In response to this question he took forty years data and employs logarithmic time-series econometric equation as total output is a function of rate of labor force, change of investment per output, export growth rate, export tax rate and export instability index. The instability index which is calculated using a five-year based moving average. His model is splitted in to two to see the effect of export instability on the general economic growth and its effect on non-export sector. Finally he concluded that the instability of export earnings is found to have a negative effect on economic growth, while the stable component has a positive effect (relation) with economic growth. He added that exports also indirectly affected by enhancing productivity of other inputs in the non-export sector.

Abay and Zewdu (1999) have conducted a research on export earnings instability and export structure in Ethiopia. They investigated export earning instability by taking time-series data from 1962-1995 and employing econometric techniques. Moreover both demand and supply side factors are incorporated as explanatory variables. They specified export instability has a function of the instability index for exports, commodity concentration index at time t, geographic concentration index at time t, the country's share in the world market at time t, the proportion of the value of food items exports to total proceeds at time t, export value index at time t, nominal exchange rate at time t, log value index (1975=100) and dummy variable for policy issues. They insert dummy variable to see the effect of policy measure in different regimes (Derg and EPRDF) and the results suggest that the policy measures taken during the Derg regime had an adverse effect on export instability in Ethiopia. The coefficient of export concentration and geographic concentration are positive but the coefficient of export concentration is significantly while geographic concentration is insignificant. The coefficient of the country's share of the world market and proportion of food export are negative and statistically significant. The negative sign of the coefficient of country's share of the world market in the goods it exports. The negative and significant coefficient of the proportion of the value of food items exports to the total export proceeds variable in the study also suggests that high concentration of exports on food items is inversely related with export instability. The coefficient of exchange rate has very little impact on instability of exports and the variation in export prices was not a significant factor for export instability in the country during the period under investigation.

3. ESTIMATION AND EMPIRICAL RESULTS

3.1 DATA AND METHOD

The data used are secondary and a time-series annual data which covers 34 years from 1974/75-2007/08. The main sources of the data for the variables in the model are National Bank of Ethiopia (NBE), Ministry of Finance and Economic Development (MoFED) and Central Statistical Authority (CSA).

The method which is going to be followed in this paper is based on Cobb-Douglas production function on which exports enter as an input in the production process. According to Ram (1987) the inclusion of exports is meant to capture international factors not explained by labor and capital. Following the works of Brempong (1991), Sinha (1999) and Mulugeta (2007), the model to be used in the analysis can be derived from the general production function in which exports are used as one of the input in the following form.

$$Y = Y(L, K, X) \dots\dots\dots (1)$$

Where Y is real aggregate output

L and K are the conventional labor and capital input

X is real exports

After taking the total differentiation the model to be estimated takes the form in equation (2) below.

$$dY = \frac{\partial Y}{\partial L} dL + \frac{\partial Y}{\partial K} dK + \frac{\partial Y}{\partial X} dX \dots\dots\dots (2)$$

Again equation (2) can be written in the form of growth rates as:

$$\frac{dY}{Y} = \frac{\partial Y}{\partial L} \frac{dL}{Y} + \frac{\partial Y}{\partial K} \frac{dK}{Y} + \frac{\partial Y}{\partial X} \frac{dX}{Y} \dots\dots\dots (3)$$

$$Y \frac{\partial L}{\partial L} L \frac{\partial K}{\partial K} K \frac{\partial X}{\partial X} X$$

$$\text{Where } \beta_1 = \frac{\partial Y}{\partial L} \frac{L}{Y}, \beta_2 = \frac{\partial Y}{\partial K} \frac{K}{Y} \text{ and } \beta_3 = \frac{\partial Y}{\partial X} \frac{X}{Y}, \text{ thus}$$

Equation (3) can be written in the following form

$$Y = \beta_1 \dot{L} + \beta_2 \dot{K} + \beta_3 \dot{X} \dots\dots\dots (4)$$

Where the dots over the symbols imply the growth rate of the variables L , K , X and β_1 , β_2 and β_3 are the elasticities of output with respect to L , K , and X .

Thus adding constant term (β_0) and a stochastic Gaussian disturbance term (U_t) we get the following equation

$$\ln Y = \beta_0 + \beta_1 \ln L + \beta_2 \ln K + \beta_3 \ln X + U_t \dots\dots\dots (5)$$

In equation (5), $\ln Y$ is the natural logarithm of GDP per capita, $\ln K$ is the natural logarithm of the stock of capital, $\ln L$ is the natural logarithm of labor force which is proxied by the population aged 15-64 of the country and $\ln X$ is the natural logarithm of total export proceeds of the country.

According to Glezakos cited in Mulugeta (2007) since LDCs have higher rates of population growth, the use of the growth rates of GNP or GDP rather than respective per-capita growth rates introduces an upward bias in to the rates of economic growth of LDCs. Thus in the model we shall use the growth of per-capita GDP instead of the growth of GDP.

The model that will be estimated in this paper is obtained by introducing an instability index component in to the equation. To do that, we split the export component in to stable and unstable. The stable export value refers to the trend export which is calculated by using five years moving average where as the unstable one is the deviation of the actual export earnings from the trend value. Finally the equation to be estimated will thus be:

$$\ln Y = \beta_0 + \beta_1 \ln L + \beta_2 \ln K + \beta_3 \ln TX + \beta_4 \ln I_n + U_t \dots\dots\dots (6)$$

3.2. THE INSTABILITY INDEX

Export instability refers to short-term fluctuation of exports from their trend expected value. The most commonly used instability indices includes normalizing standard error (NSE) index, semi-log standard error (SSE) index, modified log variance (MLV) index, the united nation index, the international monetary fund index and deviation from n years moving average index. From the stated indices almost all share one common limitation; they do not reflect what is known as inherent variability of time series. All the stated indices have been used by different researchers but there is no general consensus on the measurement of export instability.

The absence of generally accepted instability index has forced some researchers to use more than one instability index and though their results were the same from using different indices, the differences lie in the magnitude and significance of the parameters of the instability the explanatory power of the index.

Moving average is one of the most widely used methods in the literature. It is preferred for its flexibility, ease of computation, ability to accommodate different trends and ability to distinguish between rise and fall. It is given as the absolute value of exports from the trend value. In this paper the five year moving average method is used to measure export instability which is given as follows;

$$I_t = |X_t - X_{5j}|$$

$$\sum_{j=t-4}^t x_j$$

Where $X_{5j} = 1/5 \sum_{j=t-4}^t x_j$, It is the export earning instability in year t and X_{5j} is the five year based moving average.

3.3 Diagnostic tests and the result

Before any time series econometric model is estimated, appropriate diagnostics tests of the variables must take place to observe their time series properties.

In the classical regression technique of ordinary least square (OLS), the variables are assumed to be non stationary. But such non stationary variables give spurious or nonsense regression (Alemayehu *et.al.* 2000). Thus the variables must be stationary before applying any estimation technique.

According to Gujarati (2004), unit root test is the recently developed and widely used of stationarity. The Dickey-Fuller (DF) and Augmented Dickey-Fuller (ADF) test are the two methods, among others, that are used for test for the existence of unit roots. In this study the variables of the model are tested for unit roots using ADF test which augments DF test by lags of independent variable. According to the test result, as can be seen from the table 3.1, all variables are found to be non-stationary. Therefore, the variables are tested having differenced them once. And the table indicates all variables are stationary at first difference.

TABLE 3.1: THE ADF TEST STATISTIC FOR UNIT ROOTS FOR THE VARIABLES

Variables	Level		First difference	
	ADF	Conclusion	ADF	Conclusion
LRGDP	2.022	NS	-4.661**	S
lnL	0.894	NS	-5.755**	S
lnK	0.864	NS	-6.485**	S
lnTX	-2.744	NS	-3.467*	S
lnI _x	-0.724	NS	-8.425**	S

NOTE: All variables are in logarithmic form

** denotes stationary at 1% significance level

NS = Non-stationary

critical value at 1% first diff. = - 3.682

S = Stationary

critical value at 5% first diff. = -2.972

Many economic variables happen to have the nature of non-stationarity because economies involve, grow and change overtime in both real and nominal terms as a result economic forecasts are often badly wrong (Hendry and Katrina, 2000). The need for testing co-integration allows us to describe the existence of equilibrium or stationary relationship among two or more time series each of which individually non- stationary. Economically speaking, two variables will be cointegrated if they have a long term, or equilibrium relationship between them (Gujarati, 2004). Alemayehu *et.al.*(2000) noted that the co-integration test shows that even though the variables taken separately are not stationary, i.e are I(1), their linear combination (tacking them together) may be stationary. In such a case the variables are said to be co-integrated. The study has followed Engle-Granger (EG) approach to perform the co-integration test; and it is found that the residual is stationary at 1 percent which is shown in table 3.2. The fact that the residual is stationary implies that the variables are co-integrated of there exists a long run equilibrium relationship among the variables of the model.

According to Gujarati (2004), even if the variables of the model are co-integrated, there may be disequilibrium in the short run. The error correction mechanism (ECM) is important since it conveys information for the speed of the adjustment from short run disturbance to long-run equilibrium.

TABLE 3.2: ADF TEST STATISTIC FOR THE RESIDUALS

Test statistic	1% critical value	5 % critical value	10% critical value
-3.034*	-3.696	-2.978	-2.618

The residual is stationary at 5 % & 10% critical value

4. ESTIMATION RESULT

4.1 ESTIMATION RESULT OF THE LONG RUN MODEL

$$\text{LRGDP} = 9.8757 + 0.5272\text{lnL} + 0.1727\text{lnK} + 0.0134\text{lnTX} + -0.0156\text{lnI}_x$$

$$t\text{-stat} \quad (9.07) \quad (6.09) \quad (4.92) \quad (0.32) \quad (1.88)$$

$$t\text{-prob} \quad (0.000) \quad (0.000) \quad (0.000) \quad (0.749) \quad (0.070)$$

$$F\text{-stat}=273.75$$

$$\text{Prob}>F=0.0000$$

$$R\text{-squared}=0.9742$$

$$\text{Adj } R\text{-squared}=0.9742$$

The result from the above equation shows that the probability of the F-statistics is equal to 0.0000 (prob>F=0.0000) and this implies all the explanatory variables jointly explain the dependent variable at 1% level of significance. The OLS regression results shows that AdjR²=0.9742, the model describes 97% of the long run variation of real GDP is explained by the explanatory variables of the model.

The estimation result of the long run model of the t-statistics in the above equation indicates the instability index (lnI_x) is found to have negative sign and statistically significant at 10% level of significance. This shows that export instability affects economic growth negatively. The labor force (lnL) and the stock of

capital ($\ln K$) significantly affect the economic growth of Ethiopia at 1% level of significance and both variables confirmed their expected positive sign. But the result suggests that labor contributes more to the growth of the economy. The other variable, trend export ($\ln TX$), confirm the expected positive sign but in contrary to literature it has insignificant effect on growth rate of GDP.

4.2 ESTIMATION RESULT OF THE SHORT-RUN MODEL IS

$$\Delta \text{LRGDP} = 0.0281 + -0.594\Delta \ln L + 0.066\Delta \ln K + 0.185\Delta \ln TX - 0.003\Delta \ln x - 0.5229\text{ECM}_{-1}$$

t-stat (1.20) (-0.76) (1.95) (3.58) (-0.55) (-3.53)

t-prob (0.040) (0.455) (0.061) (0.001) (0.589) (0.002)

F-stat=6.83

Prob>F=0.0003

R-squared=0.5585

Adj.R-squared=0.4768

Both the short run and long run model of the study explain the negative sign of export earning instability index, however the short run model prevails statistically insignificant of the impact on real GDP. Unlike the long run interpretation the instability index and the labor force have negative sign and statistically insignificant in the short run. The negative sign of the labor force indicates that there is labor surplus in the country. The results show that the stock of capital has positive and significant relationship with the growth rate of GDP both in the long run and the short run. The result also shows that the trend export is positively related to economic growth at 1% level of significance in the short run.

The empirical result of the short run dynamic model gives R^2 equal to 0.47 showing that 47% of the variation in the growth rate of GDP is explained by the model in the short run. The F-test result indicates that the joint effects of all the variables are statistically significant at 1% significance level. The coefficient of the error correction term has the expected negative sign with magnitude of 0.5224 which implies almost 52% of the discrepancy between the actual and the long run equilibrium value is corrected each year.

The other growth explaining variables included in the model are proved to have explained the variation in the growth of the economy and have the expected sign of the parameters. When it comes to the long run, capital is the only variable that explained the variation in the growth of the economy.

5. CONCLUSION

The study aimed at the impact of export earning instability on economic growth and the results in section three shows that export earning instability indicates a negative sign both in the long run and in the short run. However, the significance of the coefficients is different i.e. the short run coefficient is insignificant while the long run coefficient is significant. The long run result is similar to findings of other researchers like Amin (2001) and Mulugeta (2007) who studied the Ethiopian case and Brempong (1991) who studied the case on 34 Sub-Saharan African countries and found negative and significant relationship between export earning instability and economic growth. But other researchers like Sinha found positive relationship between the two variables on three developing countries, Myanmar, Pakistan, and Thailand; from nine countries he studied the case.

The negative and significant effects of export earning instability in the long run deteriorate economic growth unless something has to do. Diversification both vertically and horizontally from traditional agricultural exports in to those where demand is growing should be encouraged. Engaging in the introduction of new commodities which is higher valued products is important rather than simply the expansion of old ones which are vulnerable to shocks. Quality improvements of traditional products also should be maintained to reduce export earning instability and enhance growth of export.

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QUANDARIES OF INDIAN WOMEN DUE TO MISCONCEPTION REGARDING EMPOWERMENT CONCEPT

AMISHA SHAH
ASST. PROFESSOR
CENTRE FOR STUDIES IN RURAL MANAGEMENT
GUJARAT VIDYAPITH
RANDHEJA


ABSTRACT

Since centuries women have a unique and sacred position in the world and in our country, woman is considered as a symbol of love, respect, dedication, devotion, purity and source of inspiration. In today's era, when the whole world is on the path of paradigm shift, the Women's Empowerment has become one of the most important concerns of 21st century not only at national level but also at the international level. Various efforts are being done by the government as well as non government bodies at various levels and obviously the results seem also positive at a certain extent. Still there is no exaggeration to say that women empowerment is still an illusion or myth of the fact. Actually, the concept of women's empowerment has been somewhat misunderstood and this misconception leads women to have certain dilemma regarding their actual role and responsibilities towards family, society, community, nation and the world. I have highlighted some of the dilemmas taking shapes in women's mind and challenges which a woman faces in this so called developing 21st century.

KEYWORDS

Indian women, misconception of empowerment, women dignity, economic independence.

INTRODUCTION

 Since centuries women have a unique and sacred position in the world and in our country, woman is considered as a symbol of love, respect, dedication, devotion, purity and source of inspiration. According to our ancient concept, a man and a woman are considered as two wheels of a cart. The cart can move fast and safely too, when both of them pull it in the same direction and with equal strength. This concept has been displayed through Ardhnarishwar in our history. This form of Shiva and Parvati explains the relation between man and woman. One cannot even imagine the existence of one without another. While commenting about women, Swami Vivekanand said, 'As a bird cannot fly on one wing, no society can make progress unless its women too join men in all activities.' Almost in all the societies of the world, the sphere of activities of women is no doubt larger and wider than that of men. The roles of women can be broadly classified as 'Breeder-Feeder and Producer'. The breeding of babies and feeding of humans of all ages is almost exclusively the work of women from the earliest and simplest hunting and gathering folk to the most industrialized and sophisticated society of 21st century. The first two roles are assigned to women only and the third is divided between women and men. But women's production is normally noticed by statisticians when she leaves the home. Man's production is more apt to be noticed whether he leaves the home or not.¹ This is indeed a debatable issue when we talk of fair justice and equality of women in our social setup.

WOMEN'S EMPOWERMENT TODAY

The phrase 'Women's Empowerment' is used in two broad senses i.e. general and specific. In a general sense, it refers to empowering women to be self-dependent by providing them access to all the freedoms and opportunities, which they were denied in the past only because of their being 'women'. In a specific sense, women empowerment refers to enhancing their position in the power structure of the society. The word women empowerment essentially means that the women must have the power to regulate their day-to-day lives in the social, political and economic terms - a power which enables them to move from the periphery to the centre stage.²

The Constitution Framers were very much conscious of the problem of women empowerment. Hence they ensured that the Principle of Gender Equality is enshrined in the Indian Constitution in its Preamble, Fundamental duties and Directive Principles. Moreover the Constitution also empowers the states to adopt measures of positive discrimination in favour of women. Within the framework of democratic polity, our laws, developmental policies, plans and programmes are aimed at women's advancement in different spheres. India has also ratified various international conventions to secure rights of women. The women's movement and a widespread network of Non-Government Organisations (NGOs) having strong grass-root presence and deep insight into women's concerns have contributed in inspiring initiatives for the empowerment of women. Women today are trying to understand their position and value in the society. Women have become increasingly aware of sexual inequalities in every sphere of life and are seeking ways to fight and to come out of them. The Indian women have started raising their voice against age old restraints, exploitations and dominations. She has come to her own and started scaling the ladders of social advancement with proud and dignity. Women of India are now uplifted and liberated and granted equal status with men in all walks of life-political, social, domestic and educational. They have secured various responsible positions in each and every field. No distinction is now made in matters of education between boys and girls. Their voice is now as forceful and important as that of men. They are becoming equal partners in making or dismissing of a government. Various laws have been amended in favour of women giving more benefits to them. Still there is no exaggeration to say that women empowerment is still an illusion or myth of the fact or reality.

THE NAKED REALITY OF INDIA

In spite of the various measures taken up by the government, the Women haven't been fully empowered. We may be proud of women in India occupying higher and shining positions in all the fields such as politics, administration, defence, corporate sector, health, education, space, and so on. But the naked fact remains that we still witness dowry deaths, female foeticide, lower female literacy rate, domestic violence, deprivation, degradation and exploitation of women. Dr. Dashrath Bhuyan in his article titled "Empowerment of Indian Women : A challenge of 21st century" writes "Women are being brutalized, commoditized, materialized and subjected to inhuman exploitation and discrimination."

QUANDARIES AND MISCONCEPTIONS

It seems that despite very important objectives thought over by great knowledgeable personalities and experts, the true achievement of goal remains a burning question. Actually, the concept of women's empowerment has been somewhat misunderstood by some of the programme-implementing bodies and others. Hence, this misconception leads women to have certain dilemma regarding their actual role and responsibilities towards family, society, community, nation and the world. Today women have started coming out of home and working for remuneration but some dilemma have started taking shapes in their mind. Such dilemmas are given words in this paper. I have tried to highlight some of the dilemmas taking shapes in women's mind and challenges which a woman faces in this so called developing 21st century.

- **EVALUATION OF WORK**

The so called developing and developed women are facing severe psychological crisis which in long run affect the family pattern, social setup and Indian cultural heritage. It is not wise decisions to start following all the programmes blindly without thinking of the darker sides of such issues. Women must think several times before accepting jobs. It is not a matter of imitating others. We must not aim at economical growth of a nation but the powerful foundation of our culture

too. Instead of underestimating the responsibilities of family and unpaid household work, women must raise their voice against such inequalities in valuation of work. No work is inferior in value, whether small or big in size and nature. Women should never think in the way that their household duties are inferior and carry no value. In actual sense, they are the backbones of the development of the country. When they work at home, bring up children with care and nurture elders with sympathy and love, then and then our life style is balanced. Otherwise there will be dangerous life-style disorder which will give birth to a self-centered society having no ethical base and cultural background.

In 'Women's Economic Contribution through Their Unpaid Household Work: The Case of India' (2009), Natasha Choudhary, Asuthosh Tripathy and Beena George have quantified and assigned an approximate economic value to the unpaid work performed by women throughout India. Assigning even a very low wage rate for those tasks yielded an annual figure for the value of women's unpaid household work of 61% of GDP. A typical Indian woman's day starts at about 5 a.m. and ends after 10 p.m. In addition to their unpaid household activities, women often spend six to eight hours per day on paid activities. This double burden left such women with little time for them-selves. Women in both rural and urban areas are far more involved in a range of domestic activities than men, regularly carrying out various tasks. Only a few husbands help their spouses in domestic tasks, which assistance seems to be very limited in its nature and extent. Most men and women both feel that household work is the responsibility of women.

Inequality of sex is observed due to patriarchal culture common in different degrees throughout the world. Women typically carry out most of the work involved in caring for the home and its residents, such work is given little or no social or economic importance, and as a result, women are perceived with little importance. While the work done by men is widely acknowledged and most men are considered as economically productive, women who are engaged in full-time household work are classified by the Government of India as economically unproductive. Yet the same tasks performed by these housewives, if done at another house, become a paid job and therefore valued.

▪ EXPECTATIONS OF SOCIETY

Indian woman is always expected to be perfect in her domestic work and responsibilities irrespective of her role whether she is a house wife or an earning lady. In spite of her extraordinary intelligence and knowledge to be economic independent, she is naturally expected to have all the domestic responsibilities and burden. Even a working woman is expected to fulfil all the responsibilities towards her children, in-laws, parents and other family members. Her home must be tidy and she is expected to be good in domestic work such as cooking, cleaning, dusting, moping, washing clothes and vessels, ironing, nurturing children and elders, maintaining social relations, etc. She has to adjust herself in the social structure and environment. If a man lives alone, his home seems messy, unorganised and not descent. This is taken for granted. But is it so naturally accepted by the society in the case of a woman living alone? Certainly not. She has to complete all her domestic responsibilities first though she is a professional lady. She has to follow rituals and traditions of family and social set up. Here, the dilemma is whether to adjust in social structure or not.

▪ IS WOMAN DOMINATED BY MAN ONLY?

Man and woman have been considered as inseparable partners of life. Nature itself has made them complementary to each other. But the fact is that whenever we talk about the situation of women, we mostly start blaming men and men dominating social setup. One must think about the true causes very neutrally. Although women are given equal opportunities; they still lag behind in availing them. Indian women suffer from social injustice rather than economic backwardness. Strong efforts must be done for women to avail her true dignity and position in the society. But what is the definition of true dignity? In majority of the family disputes, women are mentally or physically tortured by female family members. In some cases women are harassed by men with the consent of other female family members who enjoy seniority in family hierarchy. Women become victim of family/social politics prevailing in the society. In the issues such as dowry death, domestic violence and female foeticide, women are generally found tortured by other women of the family. Women are not divided by gender and class with men only but also within their own sex. Gender discrimination within the same gender also affects women's position and dignity in the society.

▪ DIGNITY AS WOMEN

The story of Indian women is unique, as Indian society is trying to combine an ancient civilization with the progress of modern times. The situation of women can become worse than before, as they are overburdened and speechless due to misconception about empowerment. In greed of becoming powerful, she is inviting vulnerable condition for herself. This area of discussion is less focused, as all generally think in one direction i.e. economic freedom brings empowerment. Very few attempts are made to carve the powerful personality of women as women. We always try to imitate western culture blindly thinking it as superior to ours. Is it true in real sense? We have been failed to think critically the pros and cons of such blind imitation. Instead of trying to make a woman man, we must try to give value and dignity of women as women otherwise the whole Indian family system and prosperous cultural heritage will collapse. It does not mean that Indian woman should live with traditional ways and should not change but she must develop critical thinking about her-self and come out of the dilemma about her role as well as illusion of empowerment and must fight to have dignity and respect in its true sense.

It is strange that woman doesn't feel proud to be a woman. She feels proud to work and behave like a man. She tries to play roles of man and underestimate the value of self identity. Why should she behave in such manner? Actually women in our society are divided in two classes: Earning and non-earning. Unfortunately, earning women are considered as empowered while non-earning are unproductive and having inferior status in the society. Their unpaid hard work and sacrifice for family is given no weightage. We know that millions of hard-working Indian women are considered as economically unproductive and no more valuable than beggars and prisoners.

▪ EDUCATION SYSTEM

True education enhances the inner capabilities of person and develops life skills. Ultimate aim of education is not only offering good jobs and positions but to develop virtues, morals and life skills. Education is not only for employment. Is it essential to utilize the knowledge for making money only? Women must become educated, as education is beneficial for them as well as their families. The family web is woven around the women. She has to be up to the mark and educated so that she could fend for herself and her family during the hour of crisis. The status of women would improve only if they educate themselves and grab every opportunity to become stronger and more powerful than before. Educated women are better able to care for their families and family finances, experience more opportunities in decision-making, and make better home managers. The Government of India should continue to increase efforts to educate the girl child. The educational curriculum should be restructured in order to emphasize gender equality rather than reinforcing gender stereotypes.

Sometimes women's value is measured from her earning capacity and market position. And so, she seems misguided in search of shining future and career building. Only monetary value of work is considered as a synonym of success and empowerment. Most of the academic curriculums and training programmes are designed in such a way to make women economically liberate and independent but the life-skill enhancing subjects such as family management, relationship management, children development, moral and ethical science, etc. remain untapped and untouched. It does not mean that women should not earn. But this perception must be changed that only earning women are empowered and respectable.

▪ ECONOMICAL INDEPENDENCE AND EMPOWERMENT

Is it worth to measure the power of women with the parameters like economical liberation, political position and social status outside the home only? Can an economically dependent woman not be empowered at all? Whenever empowerment is talked of, we are used to think about earning capacity of a woman, her career, designation, and market position. Generally our thinking level is limited to such extent only. Obviously, now the Indian women have got opportunities to awake, arise and develop their versatile, individual personality. But what about their traditional expected role? One always thinks, writes and guides the women to acquire skills to improve the economic condition of the family. But here the question is that who will understand the actual condition and problems of women as 'women'. Can we imagine the situation, when all the women will start working outside home, who will perform all the domestic responsibilities? Who will take care of children and old parents and other family members? When we talk of empowerment, we must think about Indian family structure and system as a whole. We must not encourage selfish attitude ignoring the interest of family and community. Instead of making women a man, efforts must be planned to cultivate in a woman dignity as a powerful woman. She is gifted with natural talents, superb willpower, descent personality and cultured attitude. Then, why is she not respected with such virtues only? Sometimes it is observed that illiterate grandmother is more intelligent and full of common sense than her so called educated granddaughter.

■ RESPECTED ROLES AND RESPONSIBILITIES

Women should not look down upon domestic life. The main sphere of action for them who have not taken up jobs outside should be essentially a happy home which is their real kingdom and where their sweet manners and mature advices as wife, mother, sister and daughter make tremendous effects on the male members of the family. The progress of a nation depends upon the care and skill with which mothers rear up their children. It is a pious duty of a woman to bring forth noble generations of patriots, warriors, scholars and statesmen. Since child's education starts even in the womb and the impressions are formed in the mind of a child while in mother's arms, women have to play a role of vital importance. They have to feel and realise at every step of their life that they are builders of the fate of our nation since children grow mainly in mother's arms. They should also encourage and guide their husbands, children and other family members in taking right direction of life and should teach them the art of living by care and love. They should learn and develop the art of planning family budget and maintaining healthy standard of living full of satisfaction, mutual intimacy, trust, empathy, ethical values and virtues.

■ ADOPTION OF CHANGE FROM BOTH THE SIDES

Change is the law of nature and there is nothing wrong to adapt change even in the social family pattern. But such acceptance must be from both the sides- men and women. Today's woman is eager to change herself and accept the responsibilities of outer world too. But this one sided change will not bring empowerment for women. The social mindset must be broadened. Women empowerment is two way process not possible without active participation of men in the work area of women i.e. sharing domestic responsibilities and home management. The actual reality is that the whole productive work in world is clearly divided between two parties: men and women and such division of labour is well accepted and taken for granted. The mentality is that the work assigned and accepted by men is considered superior than women's. The fact is that such impression has been deep rooted in the mind and heart of all. Unless such mentality is changed and men start working with women, true empowerment and equality of women is not possible. When women are eager to accept economical and political responsibilities, the male counterpart should also be ready to accept additional responsibilities of home and family otherwise such situation will lead our nation towards life style disorder inviting many other serious problems.

CONCLUSION

In today's era, when the whole world is on the path of paradigm shift, the Women's Empowerment' has become one of the most important concerns of 21st century not only at national level but also at the international level. Indian society must take initiative to create a climate in which there is no direct or indirect gender discrimination and women have full opportunities of self decision making and participating in the social, political and economic life of the country with a sense of equality and respect. When woman starts realizing the concept of empowerment and feels dignity and pride being a 'woman', then only the Vedic verse "Wherever Women is respected, God resides there" would come true.

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MICRO-FINANCING: ITS IMPACT ON ECONOMIC DEVELOPMENT OF RURAL PEOPLE: A STUDY ON THE SHGS LINKED WITH REGIONAL RURAL BANKS IN LAKHIMPUR DISTRICT OF ASSAM

SRI. DIGANTA KUMAR DAS
ASST. PROFESSOR
LAKHIMPUR COMMERCE COLLEGE
NORTH LAKHIMPUR

ABSTRACT

Rural Banks (RRBs) which are jointly owned by Govt. of India, the concerned State Government and Sponsor Banks are playing a major role in financial inclusion particularly in the rural areas. The present research paper is an attempt to study a few observations of Self-Help-Groups (SHGs) with special reference to SHGs linked with RRBs for the working and performance of SHG members living in the rural areas like Lakhimpur district of Assam. A survey on the performance of the SHGs, the economic impact of SHGs members was conducted at Lakhimpur district of Assam. Both the primary and secondary data have been used. For collecting primary data all the 9 development blocks in Lakhimpur district have been purposively selected. Again from each development block 10 SHGs (Linked with AGVB only) and from each sample SHGs 3 members have been randomly selected (9x10x3=270 respondents) for the purpose of the study. From the study it has been observed that RRBs in the rural areas of Assam has been playing important role for the economic development. After joining the SHGs the poor people particularly the women have not only increase their income but also improve their living standard. Since respondents have been in a tight work and the majority of the respondents' educational background is low creates some negligence in filling the questionnaire. Therefore, these conditions might affect the quality of the paper to some extents.

KEYWORDS

Economic Impact, Micro finance, Regional Rural Banks (RRBs) and Self Help Group (SHG).

1. INTRODUCTION

The overall development is possible only if the vicious cycle of poverty can be removed entirely. In India most of the people live particularly in the rural areas are, below the poverty line and finance to these indigenous peoples is considered as an important issue for the Government of India³. It has been seen from the last decades that poverty becomes the most economical problems faced by every developing countries in the World. There are still around 200 million people in rural areas that live below the poverty line and for whom banking access is still not a reality. A major cause of poverty is the lack of access to productive assets and financial resource. In spite of this, various factors like increasing level of illiteracy, inadequate health care and extremely limited access to social services are common among the poor people living in the rural areas. In this regard, microfinance to Self-Help-Groups may be considered as a vital option for meeting the financial requirement of the poorer section of the society. Microfinance is the form of financial development that has its primary aim to alleviate the poverty⁴.

In India, microfinance was initiated by NABARD by the promotion of SHGs and its eventual linkage with formal banks. This came to be named as the SHG-Bank Linkage Programme or the SBLP. Self Help Groups or SHGs represent a unique approach to financial intermediation⁵. The microfinance services provided through SHG - bank linkage has the most successful initiative in financial inclusion. Rural Banks (RRBs) which are jointly owned by Govt. of India, the concerned State Government and Sponsor Banks are playing a major role in financial inclusion particularly in the rural areas. RRBs are the best suited vehicles to widen and deepen the process of financial inclusion. Thus, the present research paper is an attempt to study the economic impact of microfinance on the members of Self-Help-Groups (SHGs) with special reference to SHGs linked with RRBs in the rural areas like Lakhimpur district of Assam.

2. REVIEW OF EXISTING LITERATURE

Researches have been done in the field of micro finance and SHGs linked with the Banks not only at International level but also at the national and regional level. *Langat et al.* (2011) had studied the effect of 'village bank' credit system on household welfare at Bomet country of Kenya. They had also reported that the household income of credit participants was significantly higher than that of the non-participants. Besides credit, education, age of the household head, farm and off-farm income play a significant role in determining the wellbeing in a household⁶. *Audu & Achegbulu* (2011) observed that there was a need for capacity building as more of the managing Directors of these banks were ill-equipped for the services they were meant to provide, which lead them to miss their target market⁷. *Das* (2010) had studied the performance of SGSY-SHGs Linked with RRB in Karnataka. From the study he reported that most of the immature SHGs were not reckoned by the banks as serious micro-credit clients and the SHG bank linkage process was not pursued seriously⁸. *Jothi* (2010) revealed that the sample respondents who were either unemployed or engaged in petty activities during their pre-member period, have become very active by becoming full employed in varied activities and thereby earning more for their family⁹. *Singh S. Dilan* (2010) has opined that the financial education imparted to the SHG members has a positive impact on the saving and asset accumulation strategies adopted by them¹⁰. *Roy* (2011) reported that the Tripura Grameen Banks (TGBs) in Tripura, RRBs in Nagaland, Mizoram and Arunachal Pradesh, UBI in Manipur, SBI in Meghalaya, and AGVB in Assam was doing well as compared to the other public sector banks in the NER for the development of the rural people¹¹.

³ Dutta Alok Ranjan (2009), "Performance of SHG model of microfinance under SGSY scheme-A study in Dibrugarh district (Assam)", M.Phil dissertation, submitted to Binayaka Mission University, January 2009.

⁴ Barr, Michael S. (2005), "Microfinance and Financial Development", The John M. Olin Centre for Law & Economics Working Paper Series, University of Michigan Law School, p. 273.

⁵ Sharma Abhijit (2011), "Delinquency of SHGs in NER" research project submitted by CMR Indian Institute of Bank Management (IIBM), GUWAHATI.

⁶ Langat J.K. & et al. (2011), "Effect of credit on household welfare: The case of 'village bank' credit in Bomet Country, Kenya", Asian Journal of Agricultural Sciences, vol. 3 no. 3, May 2011, pp. 162-170.

⁷ Audu, M.L. & Achegbulu, J.O., (2011), "Microfinance and Poverty Reduction: The Nigerian Experience", International Business and Management, CScanda, Vol. 3, No. 1, August 2011, pp. 220-227.

⁸ Das, B.C. (2010), "Performance of SGSY-SHGs Linked to RRBs in Karnataka", Economic Affairs, Vol.55 No.3 & 4, December 2010, pp. 207-216.

⁹ Jothi, V.N., (2010), "Socio-Economic Impact: Microfinancing of Self-Help Groups", SCMS Journal of Indian Management, A quarterly Journal, January - March, 2010, pp. 91-103.

¹⁰ Singh S. Dilan, (2010), "Saving approaches of Self-Help Group Members- a study with reference to Manipur", Prajnan, Journal of Social and Management sciences, vol. XXXIX, no. 1, April 2010, pp.29-39.

¹¹ Roy, Arup, (2011), "Microfinance Performance of Public Sector Banks in the NER of India", BIZ n BYTES - a quarterly published Journal of Applied Management & Computer Science, Volume 4, November 2011, pp. 1-18.

3. OBJECTIVES OF THE STUDY

The present study is basically concerned with the role of microfinance and its impact on the economic development of the rural people through SHGs linked with Regional Rural Banks (RRBs) at Lakhimpur district of Assam. To achieve the main objectives of the study the following specific objectives have been framed:

1. To study the demographic characteristics of the respondents;
2. To study the benefits received by the respondents under the study area;
3. To study the marketing status of the SHG products under the study area; and
4. To summarize the findings of the present study with suitable recommendations.

4. METHODS AND MATERIALS OF THE PRESENT STUDY

For achieving the objectives of the present study both the primary and secondary data have been used. The primary data were collected from field survey through filled in questionnaire and direct interview method. The secondary data were collected from different journals, books, relevant documents, news papers and magazines, records of Non-Governmental Organisations (NGOs), Institute of Co-operative Management (ICM) etc. After careful examination, it was decided to follow three stage sampling. At the first stage, all the nine development blocks in Lakhimpur District (namely Naoboicha, Lakhimpur, Bihpuria, Telahi, Karunabari, Boginodi, Narayanpur, Dhakuakhana and Ghilamora) have been purposively selected. Secondly, ten SHGs were randomly selected from each of the sample development blocks. At the third stage, from each sample SHGs three number of members were randomly selected. Thus our present study represents 270 (9X10X3=270) number of respondents. The data so collected were tabulated for the purpose of analysis. Tools, like percentages, simple average, have also been used for the purpose of the study.

5. SHG-BANK LINKAGE MODEL OF MICRO-FINANCE

In 1999, Reserve bank of India (RBI) had setup a micro-credit cell to make it easier to micro-credit providers to pursue institutional development process. The project was designed as a "Partnership Model" between three agencies viz., the SHGs, banks and Non-governmental Organizations (NGOs). In India, there are three types of SHG models have emerged:

- Bank-SHG-Members:** The bank itself acts as a self-help group promoting institution (SHPI).
- Bank-Facilitating Agency-SHG-Members:** Facilitating agencies like NGOs, government agencies, or other community-based organizations form groups.
- Bank-NGO-MFI-SHG-Members:** NGOs act both as facilitators and microfinance intermediaries. First they promote groups, nurture them, and train them, and then they approach banks for bulk loans for lending to the SHGs.

The second model, where SHGs were formed and nurtured by the NGOs and other government agencies, was more popular among the bankers. Banks opened saving accounts and then provided credit directly to the SHGs, while NGOs acted as facilitators. This approach has been widely accepted by the practitioners partly because of the large scale participation of state government through development agencies like the District Rural Development Agency (DRDA), District Women Development Agency (DWDA), and some of the centrally sponsored social sector missions, and also because of special initiatives of NABARD¹².

NABARD's SHG-Bank Linkage programme witnessed a significant progress in the recent past. As on March'12 total 79, 60,349 SHGs were having ₹ 6, 55,141.46 Lakhs savings with banks. The agency wise progress under microfinance through SHG-Bank Linkage model during the last three years has been given in the table 5.(a).

TABLE 5 (A): AGENCY-WISE NO. OF SHG FINANCED (Amount ₹ in lacks)

Agency	During 2009-10				During 2010-11				During 2011-12			
	SHGs		Bank Loan		SHGs		Bank Loan		SHGs		Bank Loan	
	No.	%	Amount	%	No.	%	Amount	%	No.	%	Amount	%
CBs	9,77,521	61.60	9,780.18	67.70	4,323,473	57.94	423,006.42	60.29	4,618,086	58.01	415,298.04	63.39
RRBs	3,76,797	23.70	3,333.20	23.10	1,155,076	15.48	135,084.19	19.25	2,127,368	26.72	130,013.93	19.85
Coops.	2,32,504	14.70	1,339.92	9.30	1,983,397	26.58	143,539.67	20.46	1,214,895	15.26	109,829.49	16.76
Total	1,586,822	100.00	14,453.30	100.00	7,461,946	100.00	701,630.28	100.00	7,960,349	100.00	655,141.46	100.00

Source: NABARD

Table 5.(a) showed that there was a tremendous increase in the number of SHGs linked with Regional Rural Banks (RRBs) from 23.70 per cent during 2009-10 to 26.72 per cent during the year 2011-12.

Assam has the highest number of SHGs linked with RRBs among the North Eastern States. Assam recorded 121298 no. of SHGs during 209-10, 136642 no. during 2010-11 and 149291 no. of SHGs during 2011-12. The progress of microfinance and saving of SHGs with RRBs in North Eastern States was shown in Table 5.(b) and the progress of microfinance and saving of SHGs with RRBs in Assam was shown in Table 5.(c).

TABLE 5 (B): PROGRESS UNDER MICROFINANCE – SAVINGS OF SHGS WITH RRBs IN NORTH EASTERN REGION (Amount ₹ in lacks)

Region /State	During 2009-10		During 2010-11		% Growth (2010-11)		During 2011-12		% Growth (2011-12)	
	No. of SHGs	Savings Amount	No. of SHGs	Savings Amount	No. of SHGs	Savings Amount	No. of SHGs	Savings Amount	No. of SHGs	Savings Amount
Assam	121298	2637.95	136642	2853.01	12.6	8.2	149291	3039.1	9.3	6.5
Meghalaya	1834	132.51	2169	148.73	18.3	12.2	2507	143.16	15.6	-3.7
Nagaland	NA	NA	625	34.08	NA	NA	679	50.99	8.6	49.6
Tripura	15832	2660.6	17644	2762.21	11.4	3.8	16696	2736.28	-5.4	-0.9
Arunachal Pradesh	1038	77.85	1050	78.75	1.2	1.2	959	54.2	-8.7	-31.2
Mizoram	2643	176.97	2085	106.2	-21.1	-40.0	2202	507.04	5.6	377.4
Manipur	4723	80	5279	95.05	11.8	18.8	5784	106.06	9.6	11.6
Sikkim	NA	NA	0	0	NA	NA	0	0	NA	NA
Total	147368	5765.88	165494	6078.03	12.3	5.4	178118	6636.83	7.6	9.2

Source: NABARD

¹² Bansal Hema (2005), "SHG- Bank Linkage Program in India- an overview", Journal of Microfinance, Vol. 5, No.1, pp. 21-49.

Table 5.(c)
Progress under Microfinance - Savings of
SHGs with Regional Rural Banks in Assam
(Amount ₹ Lakhs)

Sl. No.	Name of Bank	During 2009-10			During 2010-11			% Growth (2010-11)		During 2011-12			% Growth (2011-12)	
		No. of SHGs	No. of Members	Savings Amount	No. of SHGs	No. of Members	Savings Amount	No. of SHGs	Savings Amount	No. of SHGs	No. of Members	Savings Amount	No. of SHGs	Savings Amount
1	Assam Gramin Vikash Bank	112422	NA	2248.73	126807	NA	2396.55	12.8	6.6	138473	1433133	2575.34	9.2	7.5
2	Langpi Dehangi Rural Bank	8876	NA	389.22	9835	NA	456.46	10.8	17.3	10818	124032	463.76	10.0	1.6
	Total	121298	*NA	2637.95	136642	NA	2853.01	12.6	8.2	149291	1557165	3039.1	9.3	6.5

Note: *NA- Not Available

Source: NABARD

Assam Gramin Vikash Bank (AGVB) and Langpi Dehangi Rural Bank (LDRB) are playing a major role as RRBs for linking of SHGs in Assam. LDRB are operated only in the Hills district like Karbi Anglong etc. of Assam. On the other district of Assam the role of AGVB is very significant as 1, 38,473 of SHGs linked with AGVB during 2011-12 which records 9.2 percent growth rate as compared to 2010-11. AGVB also records 7.5 per cent growth rate of savings amount during 2011-12 as compared to 2010-11. In Lakhimpur district, there are 10694 numbers of SHGs that have linked with Banks and out of which 6475 no.s that have passed Grade-I and 2025 no.s that have passed Grade-II phase¹³.

6. RESULTS FROM THE STUDY

An attempt has been made to analyse the data collected from the field survey and thus the findings of the present investigation on the topic entitled 'Micro-financing: Its impact on Economic Development of Rural People: (A study on the SHGs linked with Regional Rural Banks in Lakhimpur district of Assam)' are presented as under:

6.1 DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS

The demographic characteristics of the respondents were analysed as follows:

6.1.1 Gender of the respondents

TABLE 6.1.1.(I): GENDER OF THE RESPONDENTS

Sl. No.	Variables and Categories	Frequency (No.)	Percentage (%)
1	Male	26	9.63
2	Female	244	90.37
	Total	270	100

Source: Field Survey

It was also observed from the above Table 6.1.1.(i) that majority of the respondents i.e. 90.37 percent were female and whereas only 9.63 percent were male.

6.1.2 Educational status of the Respondents:

The educational status of the respondents have been shown in Table 6.1.2.(i) as follows:

TABLE 6.1.2.(I): EDUCATIONAL STATUS OF THE RESPONDENTS

Sl. No.	Variables and Categories	Frequency (No.)	Percentage (%)
1	Illiterate	21	07.78
2	Upto Primary school	95	35.16
3	Middle school	65	24.07
4	High school	59	21.85
5	College education	19	07.04
6	Post Graduation	11	04.07
	Total	270	100

Source: Field Survey

The education level of the respondents showed that 35.16 per cent of have education upto primary school, 24.07 per cent received middle school education, 21.85 per cent had received high school education, 7.78 per cent were illiterate and 7.04 percent were have college level education only 4.07 per cent have received the Post Graduate degree.

6.1.3 Respondents according to age:

The age of the respondents have been shown in Table 6.1.3.(i):

TABLE 6.1.3.(I): RESPONDENTS ACCORDING TO THEIR AGE

Sl. No.	Variables and Categories	Frequency (No.)	Percentage (%)
1	Young age (18 to 30 years)	92	34.07
2	Middle age (31 to 50 years)	173	64.07
3	Old age (above 50 years)	5	01.86
	Total	270	100

Source: Field Survey

From the above Table 6.1.3.(i) it has been observed that majority of the respondents i.e. 64.07 percent were middle aged, while 34.07 per cent were young aged and remaining i.e. 1.86 per cent only were old aged.

6.1.4 Respondents according to their Caste:

TABLE 6.1.4.(I): CATEGORY WISE DISTRIBUTION OF THE RESPONDENTS

Sl. No.	Variables and Categories	Frequency (No.)	Percentage (%)
1	SC	30	11.11
2	ST	38	14.07
3	Other backward castes (OBC)/MOBC	143	52.96
4	General	59	21.86
	Total	270	100

Source: Field Survey

It is revealed from the data presented in Table 6.1.4.(i) that more than half i.e. 52.96 percent of the respondents were reported to be OBC/MOBC category followed by general category (21.86 %), Scheduled Tribe (14.07%) and Scheduled Caste (11.11%).

¹³ Census data 2011 of Lakhimpur Dist., Country Focus: India: Assam: Lakhimpur District: District Profile, <http://lakhimpur.nic.in/profile.htm>, on 20th May 2013.

6.1.5 Type of Family of the Respondents:**TABLE 6.1.5.(I): FAMILY TYPE OF THE RESPONDENTS**

Sl. No.	Variables and Categories	Frequency (No.)	Percentage (%)
1	Nuclear	231	85.56
2	Joint	39	14.44
	Total	270	100

Source: Field Survey

It was also observed from the above Table 6.1.5.(i) that majority of the respondents i.e. 85.56 percent were nuclear family and whereas only 14.44 percent were joint family type.

6.2 INVOLVEMENT OF MEMBERS ON INCOME GENERATING ECONOMIC ACTIVITIES

The involvement of the respondents on the income generating economic activities in pre-SHG and post-SHG period were analysed in Table 6.2.(i) as follows.

TABLE-6.2.(I): ECONOMIC ACTIVITIES ADOPTED BY THE RESPONDENTS IN PRE-SHG AND POST-SHG STAGE

Type of Activities	Pre-SHG		Post-SHG	
	Frequency	Percentage	Frequency	Percentage
No activity	67	24.81	0	0.00
Piggery	48	17.78	78	28.89
Goatery	26	9.63	28	10.37
Duckery	22	8.15	32	11.85
Weaving	16	5.93	26	9.63
Food Processing	0	0.00	5	1.85
Fishery	5	1.85	14	5.19
Poultry	8	2.96	27	10.00
Bee keeping	0	0.00	0	0.00
Dairy	3	1.11	11	4.07
Mushroom	0	0.00	0	0.00
Petty Business	2	0.74	14	5.19
Agricultural Farm	73	27.04	11	4.07
Other income generating activities	0	0.00	24	8.89
Total	270	100	270	100

Source: Field Survey

Table 6.2.(i) shows that 24.81 percent of the respondents have no activity before joining the Self-Help Groups. After joining the group there has not a single person without any activity. The above table also shows that during the post-SHG period agricultural firm activities have reduced from 27.04% to 4.07%. From the Table 6.2.(i) it has been observed that 28.89 percent of the respondents involved in Piggery business followed by Duckery (11.85%), Goatery (10.37%), Poultry (10.0%), weaving (9.63%), other income generating activities (8.89%), Fishery (5.19%), Petty Business (5.19%), Dairy (4.07%) and only 1.85 percent were engaged in food processing activities. As far as the bee-keeping and mushroom cultivation was concerned there was not a single respondent who has started the activities before and after joining the SHGs. From the Table 6.2.(i) it can be concluded that the piggery activity emerged as the major activity started under SHGs by the respondents followed by Duckery, Goatery, Poultry, weaving, other income generating activities, Fishery etc.

6.3 BENEFITS DERIVED FROM THE INCOME GENERATING ACTIVITY BY THE RESPONDENTS

The benefits derived from the income generating activities by the respondents were analysed by two dimensions:

6.3.1 Monetary benefits; and

6.3.2 Non-monetary benefits.

6.3.1 Monetary benefits received by the respondents:

The monetary benefits received by the respondents were analysed in Table 6.3.1.(i) as follows:

6.3.1.(I): MONETARY BENEFITS (MONTHLY INCOME) RECEIVED BY THE RESPONDENTS

Variables (in ₹)	Frequency (No.)	Percentage (%)
Upto 500/-	38	14.07
501 to 1000	41	15.19
1001 to 1500	81	14.07
1501 to 2000	57	21.11
2001 to 2500	32	11.85
2501 to 3000	16	5.93
3001 and above	5	1.85
Total	270	100

Source: Field Survey

It has been observed from the Table 6.3.1.(i) that 43.33 per cent of the respondents had low incremental income which came upto ₹ 1500, while 38.89 per cent had medium income in the range of ₹ 1500 to ₹ 3000 and only 1.85 per cent had high incremental income of more than ₹ 3000. Thus it has been revealed from the above table that the average monthly income of the respondents was ₹ 1383.33/-.

6.3.2 Non-Monetary benefits received by the respondents:

The non-monetary benefits received by the respondents were analysed in Table 6.3.2.(i) as follows:

TABLE 6.3.2.(I): NON-MONETARY BENEFITS RECEIVED BY THE RESPONDENTS (MULTIPLE RESPONSES)

Variables	Frequency (No.)	Percentage (%)
Able to contribute towards the family income	225	83.33
Improvement of communication ability	258	95.56
Increased confidence level	225	83.33
Respect from the society	205	75.93
Respect from the family members	181	67.04
Improved household consumption of products	167	61.85
Understand the banking operation	177	65.56
Awareness in health & Hygiene care education	159	58.89

Source: Field Survey.

Vast majority of the respondents felt that their communication ability was improved (95.56%), followed by increase in their confidence level and contribution in the family income (83.33% each). 75.93 percent and 67.04 per cent of respondents opined that they were respected by society and family members, respectively. 61.85 per cent of the respondents opined about their improvement of household consumption of products. 65.56 per cent were understand the banking operation and 58.89 percent only were aware about the health education.

6.4 Marketing status of the respondents:

The marketing of the respondents have been discussed with the help of the following table:

TABLE 6.4.1.(I): RESPONDENTS ABOUT THE MARKETING OF THE SHG PRODUCT

Marketing	Frequency	Percentage
Sell to outside the district markets	5	1.85
Sell in local markets of the district directly	47	17.41
Sell to the wholesaler	16	5.93
Sell to the retailer of the district	202	74.81
Total	270	100

Source: Field Survey

The Table 6.4.1.(i) shows the marketing scenario of finished products of SHGs. 17.41% of respondents sold their finished product in the local market and 74.81% through the retailer of the districts. From the Table 6.4.1.(i) it has been found that most of the SHG products were sold in the local market by the respondents.

7 SUGGESTIONS

Based on the above study the following suggestions have been given forwarded:

1. The Regional Rural Banks and the NGOs should encourage the rural peoples basically the rural women for starting their own new ventures at their locality and should encourage the members to attend the meetings regularly.
2. People should come together on their own for motivating women to form a group instead of officials or village leaders to serve the ulterior motives.
3. Govt./Developing agencies should provide more and more informal education to rural people so that they will show their full capabilities towards rural development.
4. More emphasis given for minimising the over burdened of the women in the rural areas in respect to dual responsibility of managing household and economic activities.

8 CONCLUSIONS

The analysis made in this study with the help of both primary and secondary data has brought out many salient features about the changes in the social and economic aspects of the sample respondents who are the members in SHG. It is clear that the SHG plays a pivotal role in enhancing the both social and economic lives of the members and bring them more respect both domestically and socially. Microfinance to the rural SHGs is a way to raise the income level and improve the living standards of the rural people. From the analysis of data it can be concluded that numbers of members have started savings only after joining the groups while majority of the members have no savings in the pre-SHG era. After joining the groups most of the members solved their problems alone.

9 SCOPE FOR FURTHER RESEARCH

The result of the present study would helpful for the Governmental, semi-governmental and non-governmental agencies in formulation of various policies and strategies aiming at poverty alleviation, income generation and socio-economic upgradation through microfinance and SHGs for the poor people living in the rural areas. It would also be an added to the existing literature. Through this research work the researchers who are working in this field can use the results for further works also.

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A STUDY OF PERCEPTION OF INDIVIDUAL INVESTORS TOWARDS MUTUAL FUNDS-WITH REFERENCE TO GUJARAT STATE

DR. CHETNA CHAPADIA (MAKWANA)
ASST. PROFESSOR
NARMADA COLLEGE OF MANAGEMENT
BARUCH

ABSTRACT

Indian capital market has been growing tremendously in last decades. The Indian Mutual Fund Industry is growing rapidly as a mechanism of pooling together the investment of unsophisticated investors and turn in the hands of professionally managed fund managers for consistent return along-with capital appreciation. This paper is an attempt to evaluate perception of individual investors towards Mutual Fund investments in Gujarat State. The finding will help mutual fund companies (AMC) to identify the factors that influence the perception of investors, for successful design of the product. It can be inferred from this study that mutual fund investors are moderately aware about mutual funds. Through discriminant analysis it can be stated from the analysis that their perception towards mutual fund differs as their level of experience. From analysis of investors' perception it can be concluded that they consider 'Tax benefits, Regulatory framework, and Comparative advantage of MFs to other investment avenues' as most significant criteria while investing in mutual funds.

KEYWORDS

Mutual Funds (MFs), Investments, Perceptions, Risk, Assets Management Companies.

1. INTRODUCTION

Indian capital market has been growing tremendously in last decades. In terms of financial market development, India ranks much better than high yielding equity market and most of Emerging market Economies (EMEs). Indian equity market capitalization has increased to Rs. 1.2 trillion as on 2011. Last two decades were of tremendous expansion of financial sector in India, led to growth in Banking, Equity, Insurance as well as Mutual funds Market. In order to channelize the small savings of Indian population, mutual funds took off its spread, supported by high growth of saving and investment rates.¹⁴ Mutual funds are recognized as a mechanism of pooling together the investment of unsophisticated investors and turn in the hands of professionally managed fund managers for consistent return along-with capital appreciation. Mutual funds put forward a way out to investors to approach most schemes and get well-diversified portfolio because investors with small savings neither have sufficient expertise nor have access to required diversification.

2. STATEMENT OF PROBLEM

It should be noted that the 'awareness and expectations' of investors play vital role in the financial markets. They influence the price of the securities, the volume traded and various financial operations in actual practice. Investors attitude in market are influenced by their perception and they relate the perception to their investment behaviour. It is imperative that consumer (investor behaviour) is influenced by various factors like personal (age, stage in life cycle, occupation, economic circumstances, etc.) financial education, risk attitude and awareness and most significantly by perception about market.

3. LITERATURE REVIEW

Since 1992, a number of articles and brief essays have been published in financial dailies, periodicals, professional and research journals, explaining the basic concept of Mutual Funds and behaviour of investors on them. They underline the importance of mutual funds in the Indian capital market environment. They touch upon varied aspects like regulation of mutual funds investor expectations, investor safety, trend in growth and some other critical views on the performance and functioning of mutual funds schemes.

Ippolito (1992) found that fund/scheme selection by investors is based on past performance of the funds and money flows into winning funds more rapidly than they flow out of losing funds. Gupta (1994) conducted survey of household investors with the objective to provide data on the investor preferences on MFs and other financial assets. The study was more appropriate, at that time, to the policy makers of mutual funds to design the financial products for the future. Kulshreshta (1994) offers certain guidelines to the investors in selecting the mutual fund schemes. Shankar (1996) indicated that the Indian investors do view Mutual Funds as commodity products and AMCs, to capture the market should follow the consumer product distribution model.

Jambodekar (1996) conducted a study to assess the awareness of MFs among investors, with a view to identify the information sources influencing the buying decision and the factors influencing the choice of a particular fund. The study reveals among other things that Income Schemes and Open Ended Schemes are more preferred than Growth Schemes and Close Ended Schemes during the then prevalent market conditions. Sikidar and Singh (1996) conducted a survey with an objective to understand the behavioural aspects of the investors of the North Eastern region towards mutual funds investment portfolio. The study revealed that the salaried and self-employed formed the major investors in mutual fund primarily due to tax concessions.

Lynch and Musto (2003) stated that this decade will belong to mutual funds because the ordinary investor does not have the time, experience and patience to take independent investment decisions on his own. Goetzman and Peles (1997) provided the evidence of investor psychology affecting fund/scheme selection and switching. Khorana and Servaes (1999) had observed that the decision to introduce a new type of fund is affected by a number of variables, including investor demand for the fund's attributes.

Chakarabarti and Rungta (2000) stated the importance of brand effect in determining the competitive position of the AMCs. Their study reveals that brand image factor, though cannot be easily captured by computable performance measures, influences the investor's perception and hence his fund/scheme selection. Shanmugham (2000) conducted a survey of 201 individual investors to study the information sourcing by investors, their perceptions of various investment strategy dimensions and the factors motivating share investment decisions, and reports that among the various factors, psychological and sociological factors dominate the economic factors in investment decisions. Keli (2005) found that past performance and Fund's Investment Strategy continued to be the top two drivers in the selection of a new fund manager

From the above discussion it can be inferred that Mutual Fund as an investment vehicles are capturing the attention of various segments of the society, like academicians, entrepreneurs, financial intermediaries, investors and regulators for varied reasons. Thus this paper makes an earnest attempt to study the perception of the individual investors, a class who got less attention in research, in their selection of the Mutual Funds in an Indian perspective with specific reference to Gujarat State.

4. OBJECTIVES OF THE STUDY

1. To evaluate the Perception of Individual Investor towards Mutual fund investments in Gujarat state.
2. To identify the information sources and preferred communication channel for investment in Mutual Funds.

¹⁴ India the Incredible investment destination. 2012. Fact Book. Department of Economic Affairs, Ministry of Finance, Government of India. www.finmin.nic.in/the_ministry Nov.2013

Further this study will help mutual fund companies to understand the profile of Indian retail investors and their behavioural pattern. By knowing this, companies can improve their products and can adopt apposite strategy to tap unexplored market in a better way.

5. RESEARCH METHODOLOGY

The study mainly deals with the perception of individual investors towards mutual fund investments in Gujarat State. The required data was collected through pretested questionnaire administered on a simple random and judgement sample of 1182 mutual fund investors in Gujarat State. Respondents were screened and inclusion was purely on the basis of their knowledge about financial markets, MFs particular. The purpose of survey was to understand the perception of individual investors towards MF investments. Research design adopted for this specific study is descriptive in nature and respondents were selected across major 10 cities of Gujarat State during the year 2013.

6. DATA ANALYSIS AND FINDINGS

To assess the perception of investors about mutual fund investment following analysis had been carried out, viz. discriminant analysis and t-test etc. to understand its impact and association with other variables. The results are as given under:

6.1 DISCRIMINANT ANALYSIS¹⁵:

Discriminant analysis is a multivariate technique used for predicting group membership on the basis of two or more independent variable. Discriminant Analysis is a technique for analysing data when the criterion or dependent variable is categorical and the predictor or independent variables are interval in nature.

The main objectives of discriminant analysis are:

- To develop linear combinations of the independent variables that will best discriminate between the categories of the criterion or dependent variable.
- To test the existence of significant differences among the groups in terms of the predictor variables.
- To identify the predictor variable contributing most to the inter-group differences.
- To classify cases to one of the groups based on the values of the predictor variable.
- To evaluate the accuracy of classification.

The independent variables used were perception of respondents on various factors under the study. The table-1.1(Annexure-1.1) shows 16 variables used for getting the knowledge of the perception level of the respondents:

Discriminant analysis techniques are described by the number of categories possessed by the criterion variable. When the criterion variable has two categories, the technique is known as 'two-group discriminant analysis'. When three or more categories are involved, the technique is referred to as 'multiple discriminant analysis'.

Here, the predictor or the independent variables are taken as the 16 statements. There are three criteria under experience of Mutual Fund investment. Hence, 'Multiple Discriminant Analysis' is carried out.

6.1.1 Multiple Discriminant Analysis (three groups):

In this analysis, three types of respondents' viz.: mutual fund investors having <1 year, 1-3 years and >3 years of experience are considered. Table 1.2 (Annexure1.2) gives 'Tests of Equality of Group Means'.

As can be seen from the last column (of the table) that the Null Hypothesis $H_0: \mu_1 = \mu_2 = \mu_3$ (Means of all the Groups are equal) does not hold good for a level of significance of 0.05 for the statement numbers 1, 4, 6, 8, 9, 11, 12,14, 15 and 16. So, there is a possibility that these three groups may be discriminated on all or a few of these variables.

To find the factors on which three types of industries are discriminated, a stepwise discriminant analysis using Mahalanobis Distance Procedure was carried out. In this analysis, the predictors (independents) are not entered simultaneously. They are entered sequentially based on their ability to discriminate between groups.

An F ratio is calculated for each predictor by conducting a univariate analysis of variance in which the groups are treated as the categorical variable and the predictor as the criterion variable. The predictor with the highest F ratio is the first to be selected for inclusion in the discriminant function, if it meets certain significance and tolerance criteria. A second predictor is added based on the highest adjusted or partial F ratio, taking into account the predictor already selected. Each predictor is tested for retention based on its association with other selected predictors. The process of selection and retention is continued until all predictors meeting the significance criteria for inclusion and retention have been entered in the discriminant function.

When Discriminant Analysis, with all the 16 variables was carried out, the following Table 1.3 emerged as a result thereof. This table gives the list of variables, which were entered at different steps.

TABLE-1.3 VARIABLES IN THE ANALYSIS

Step	Statement	Tolerance	F to Remove	Residual Variance
1	S.5.14	1	20.148	
2	S.5.14	0.981	15.339	2.926
	S.5.6	0.981	11.459	2.906
3	S.5.14	0.947	11.363	2.887
	S.5.6	0.965	9.149	2.874
	S.5.12	0.943	6.273	2.857
4	S.5.14	0.946	11.095	2.872
	S.5.6	0.961	8.489	2.857
	S.5.12	0.918	7.778	2.846
	S.5.11	0.972	5.268	2.835

It can be seen that Statement 14 was entered first at step 1, and then followed by Statement 6, Statement 12, and Statement 11 at steps 2, 3, and 4 respectively. Hence, during the process, four statements were finally entered. The statistical information pertaining to these four statements and other related aspects are reflected in Table 1.4 on the next page.

As can be seen from the table, there are only four variables viz. statement numbers 14, 6, 12, and 11, which are considered in the analysis. The other 12 variables (statements) are not in the analysis. Hence, it may be concluded that these three categories of investors are discriminated on the given four statements.

TABLE-1.4: VARIABLES ENTERED/REMOVED^{a,b,c,d}

Step	Entered	Residual Variance
1	S.5.14	2.906
2	S.5.6	2.857
3	S.5.12	2.835
4	S.5.11	2.82

At each step, the variable that maximizes the Mahalanobis distance between the two closest groups is entered.

a. Maximum number of steps is 32.

¹⁵ Many theoretical details in this section are taken from the book of Naresh K. Malhotra. Malhotra Naresh K., Marketing Research: An Applied Orientation. Delhi: Addition Wesley Longman (Singapore) Pte. Ltd., Indian Branch, 2001.

- b. Minimum partial F to enter is 3.84.
 c. Maximum partial F to remove is 2.71.
 d. F level, or tolerance or VIN insufficient for further computation.

These statements are:

- Statement number 14: SEBI should ensure full disclosure by the funds.
- Statement number 6: Some categories of MF provides tax benefits
- Statement number 12: AMFI protects interest of unit holders.
- Statement number 11: ULIP is preferred over MF Schemes

Since, there are three types of experience groups, maximum two functions can be extracted. Following Table No. 1.5 gives Eigen values and the parameters associated with these two functions:

TABLE-1.5: EIGEN VALUES

Function	Eigen value	% of Variance	Cumulative %	Canonical Correlation
1	0.070 ^a	93.3	93.3	0.255
2	0.005 ^a	6.7	100	0.07

a. First 2 canonical discriminant functions were used in the analysis.

The Eigen value associated with the first function is 0.07 and this function accounts for 93.3 percent of variance. The second function has Eigen value of 0.005 only and accounts for 6.7 percent of variance.

It is now necessary to see whether these two functions are able to significantly discriminate among the three types of investor categories. For this purpose, Wilks' Lambda, Chi-square, and level of significance are to be obtained.

Next, Table 1.6 gives Wilks' Lambda. Wilks' Lambda (also called the *U*-statistic) is the ratio of the sum of squares to the total sum of squares within groups for each predictor. It varies between 0 and 1. It is used to determine if the group means are equal. Large values (near 1) of lambda indicate that the group means may be similar. Small values (near 0) indicate that the group means may be different.

TABLE-1.6: WILKS' LAMBDA AND STATISTICAL SIGNIFICANCE

Test of Function(s)	Wilks' Lambda	Chi-square	Df	Sig.
1 through 2	0.93	85.247	8	0.000
2	0.995	5.86	3	0.119

The value of Wilks's lambda is 0.930 and 0.995. These values transform to a Chi-square of 85.247 and 5.860 respectively with eight and three degrees of freedom. Only first value of Chi-square is significant beyond the level of significance of 0.05. Thus, one function significantly discriminate the three groups.

The next stage is to find out as to what extent each of the four statements is more closely associated with one function or the other. For this purpose, first Standardised Canonical Discriminant Function Coefficients are obtained. These functions are depicted in the following Table 1.7.

TABLE-1.7: STANDARDIZED CANONICAL DISCRIMINANT FUNCTION COEFFICIENTS

Statement	Function	
	1	2
S.5.6	0.472	0.237
S.5.11	-0.28	0.899
S.5.12	0.454	-0.39
S.5.14	0.536	0.416

The Standardized Canonical Discriminant Function Coefficients indicate large coefficients for statements 6, 12, and 14 on function 1; whereas function 2 has relatively larger coefficients for statement 11. To fortify the accuracy of this finding, an alternative method of coefficients under 'Structure Matrix' was applied. The coefficients associated with two functions are depicted in Table 1.8 on the next page.

In this table, variables with large coefficients for a particular function are grouped together. These groupings are shown with asterisks.

TABLE-1.8: STRUCTURE MATRIX

	Function	
	1	2
S.5.14	0.693*	0.371
S.5.6	0.626*	0.199
S.5.12	0.592*	-0.132
S.5.15 ^a	0.307*	0.178
S.5.9 ^a	0.296*	0.126
S.5.2 ^a	0.287*	0.038
S.5.13 ^a	0.259*	0.137
S.5.8	0.229*	0.055
S.5.1 ^a	0.222*	0.045
S.5.4 ^a	0.206*	0.016
S.5.16 ^a	0.189*	0.055
S.5.3 ^a	0.125*	0.083
S.5.5 ^a	0.107*	0.045
S.5.11 ^a	-0.229	0.831*
S.5.10 ^a	0.133	0.156*
S.5.7 ^a	0.029	0.089*

Pooled 'within-groups correlations' between discriminating variables, and standardized canonical discriminant functions.

Variables ordered by absolute size of correlation within function.

* Largest absolute correlation between each variable and any discriminant function.

a. This variable is not used in the analysis.

Thus, except statements 11, 10, and 7, all statements have asterisks for function 1 because these statements have coefficients, which are larger for function 1 than for function 2. These statements are associated primarily with function 1. On the other hand, statements 11, 10 and 7 are predominantly associated with function 2, as indicated by asterisk.

Table 1.9 shown below gives the values of Group Centroids of three categories of investors for functions 1 and 2:

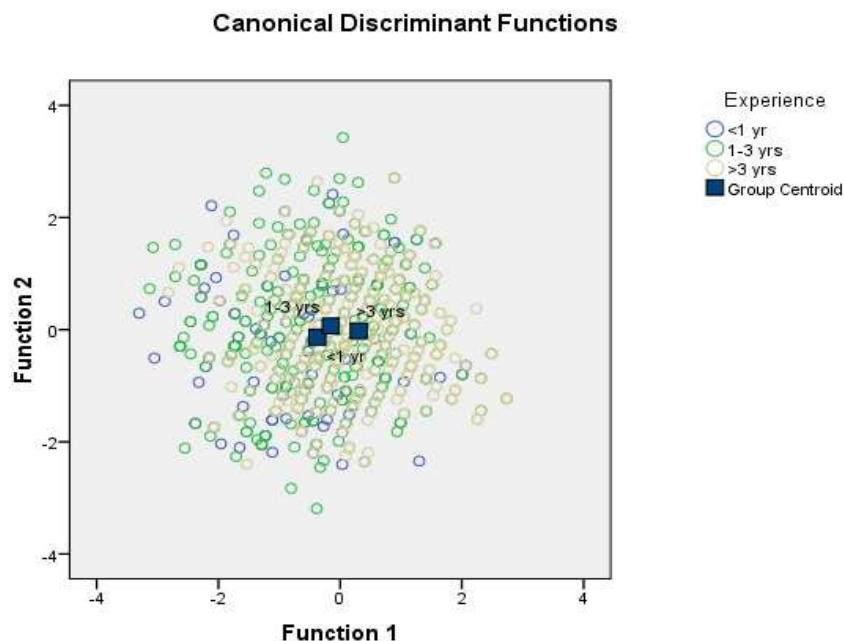
TABLE-1.9: FUNCTIONS AT GROUP CENTROIDS

Years of Experience in MFs Investments	Function	
	1	2
<1 year	-0.375	-0.135
1-3 years	-0.154	0.067
>3 years	0.306	-0.024

Un-standardized canonical discriminant functions evaluated at group means.

It can be observed from the above table that investors with highest experience (>3 year) has the highest value on function 1 and the group of investors with <1 year experience has the lowest value on function one. Therefore, investors seems to attach 'tax benefits and regulatory protection' as compared to other investors.

FIG. 1.1



Investors with experience of 1-3 years have highest value on function 2 and the investors with experience of less than 1 year have the lowest. Investor with 1-3 years of experience, therefore, seems to attach 'ULIP is preferred over MFs' as compared to other group of investors.

Validity of Discriminant Analysis is carried out on the basis of the classification results. Table 1.10 gives the classification results:

TABLE-1.10: CLASSIFICATION RESULTS

		Experience	Predicted Group Membership			Total
			<1 year	1-3 years	>3 years	
Original	Count	<1 year	95	29	53	177
		1-3 years	208	115	201	524
		>3 years	121	94	266	481
	%	<1 year	53.7	16.4	29.9	100
		1-3 years	39.7	21.9	38.4	100
		>3 years	25.2	19.5	55.3	100

a.40.3% of original grouped cases correctly classified.

The classification results based on the analysis sample indicated that $95 + 115 + 266 = 476$ out of $1,182 = 40.3\%$ of original grouped cases were correctly classified. This indicates a satisfactory validity. It may, therefore, be assumed that the interpretations made in the earlier paragraphs on the basis of Multiple Discriminant Analysis (three groups) for types of investors are valid.

7. CONCLUSION

Investors main objective is to earn return from investment into capital market in general and mutual funds in specific. Through survey of 1182 mutual fund investors in Gujarat State, it was found that awareness level of investors in Gujarat is at moderate level. It was observed that their perception about mutual fund investment is favourable. Investors can be classified on the basis of their experience of investment into mutual funds. Their perception about Mutual fund is differing on the basis of two important criteria, first is 'Tax benefits and Regulatory framework', secondly on the 'Comparative advantage of MFs over ULIPs'. Thus it can be concluded that investors are having favourable perception for tax and regulation as an important attributes if they are having experience of less than one year. While, investors with higher experience had exhibit favourable perception towards comparative benefits of MFs investments over other investments avenues. Thus, it can be inferred from this study that the Companies introducing new schemes and competing in market should understand perceptive value and attributes of investor's decisions.

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ANNEXURE

ANNEXURE 1.1

TABLE–1.1: INDEPENDENT VARIABLES USED FOR PERCEPTION LEVEL

Item no.	Item
1	Mutual Funds are ideal option for small investors
2	Mutual Funds are ideal for all categories of investors
3	Mutual Funds are risky investments
4	Mutual Funds cannot guarantee returns
5	Investments In Mutual Funds are having low liquidity
6	Some categories of MF provides tax benefits
7	People invest in mutual funds just to save taxes
8	Investment in mutual funds is preferable than investing in direct Equities in present condition.
9	Returns from mutual funds depend upon the market performance
10	Returns from mutual funds are generally higher than that of FDs in Banks
11	ULIP is preferred over MF Schemes
12	AMFI protects interest of unit holders
13	SEBI should maintain an effective system of self-governance.
14	SEBI should ensure full disclosure by the funds.
15	SEBI should ensure that the transfer of units is done within 30 days from the date of issue of certificate
16	Role of SEBI is effective

ANNEXURE 1.2

TABLE-1.2: TESTS OF EQUALITY OF GROUP MEANS

	Wilks' Lambda	F	df1	df2	Sig.
S.5.1	0.994	3.746	2	1,179	0.02
S.5.2	0.995	2.777	2	1,179	0.06
S.5.3	0.999	0.52	2	1,179	0.6
S.5.4	0.992	4.884	2	1,179	0.01
S.5.5	0.999	0.646	2	1,179	0.52
S.5.6	0.973	16.23	2	1,179	0
S.5.7	0.999	0.531	2	1,179	0.59
S.5.8	0.989	6.407	2	1,179	0
S.5.9	0.983	10.16	2	1,179	0
S.5.10	0.998	1.085	2	1,179	0.34
S.5.11	0.993	4.183	2	1,179	0.02
S.5.12	0.976	14.46	2	1,179	0
S.5.13	0.995	3.073	2	1,179	0.05
S.5.14	0.967	20.15	2	1,179	0
S.5.15	0.986	8.412	2	1,179	0
S.5.16	0.994	3.581	2	1,179	0.03

ECONOMIC EMPOWERMENT OF WOMEN THROUGH KUDUMBASHREE WITH REFERENCE TO PUNNALA GRAM PANCHAYATH OF PUNALLOOR, KOLLAM DISTRICT, KERALA STATE

LIGI JOLLY
LECTURER
ASSUMPTION COLLEGE
CHANGANACHERRY

ABSTRACT

The Government of Kerala State in India has introduced a novel scheme of poverty alleviation based on micro credit and self-help grouping paraphrased as Kudumbashree (Prosperity of the Family). The scheme aims at improving the living levels of the poor women in rural and urban areas. It seeks to bring the poor women folks together to form the grass root organizations to help enhance their economic security. The projects aim at removing poverty among rural women households through setting up of micro credit and productive enterprises. The activities such as micro credit and micro enterprises under the scheme were undertaken by the locally formed Community Development Societies consisting of rural households. Mission of Kudumbashree is "To eradicate absolute poverty in ten years through concerted community action under the leadership of local governments, by facilitating organization of poor for combining self help with demand led convergence of available services and resources to tackle the multiple dimensions and manifestation of poverty holistically". Reaching out to the families through women and reaching out to the society through families.

KEYWORDS

Micro Credit, Kudumbashree, Self Help.

INTRODUCTION

Kudumbashree is the flagship programme of Kerala state Govt. for poverty eradication which provides 2, 34,756 self-employment opportunities to women below poverty line, which has succeeded in making a significant dent on poverty in the state. The Kerala state Poverty eradication mission implemented the Kudumbashree programme by organizing the poor by creating community based structure of women below poverty line with focus on self help demands led over by available resources under the leadership of local Government. This programme covers the entire rural area of about 1, 35,572 neighborhood groups, 13,199 area development societies, 991 community development societies (data collected in 2009). Kudumbashree is the largest micro finance institution in Kerala. It mobilizes a sum of 376.06 cores as thrift and disbursed a credit to its members. The thrift and credit societies at neighborhood group level motivate and facilitate the poor to save and provide them with cost effective and easy credit. The poor families bring in small sums according to their capacity, pool them together, for a corpus and take back loans to meet their immediate needs without depending on money lenders. Poverty eradication and women empowerment are the widely discussed topic all over the world. It has been acknowledged in enumerable studies that the social and economic empowerment of women have a significant positive impact on the poverty eradication and economic development of the country. Therefore the government of India has implemented various schemes to reduce poverty, for empowering poor women and to promote gainful employment.

IMPORTANCE OF STUDY

Women are a good source of manpower and contribute effectively towards human capital for which they have to be adequately equipped. Their potentials have to be properly exploited and their productivity and creativity should be utilized for the development of nation. This can be made possible by empowering them. The women reservation bill is a land mark in the history of women empowerment giving opportunity for thousands of women at the grass root level to be a part of local governance.

In this juncture, it is important to analyse how far the women empowerment strategies adopted by Kudumbashree – the largest women organization at grass root level by government of Kerala are able to make changes in the lives of its members by empowering economically, socially and politically. Since Kudumbashree focused its objectives on poverty alleviation through women empowerment. It is essential to notice whether Kudumbashree provides sufficient space for empowerment to its members. In this context the present study is important.

SCOPE OF STUDY

The study is conducted in Punnala Panchayath focusing on Kudumbashree strategies for empowering women in the Panchayath. Kudumbashree aims at women empowerment through micro enterprise by giving employment and by providing these women with steady source of income. The main intention of the study is to assess the level of empowerment achieved by women through Kudumbashree and to analyze the different dimensions of empowerment.

OBJECTIVES

1. To study the demographic profile of the sample respondents.
2. To know the economic changes of women through Kudumbashree units.
3. To study the magnitude of social and financial empowerment of through membership in Kudumbashree.

RESEARCH METHODOLOGY

The data is collected through primary and secondary sources. Primary data were collected from 30 respondents who are members in Kudumbashree by using interview schedule supported by informal discussion and observations. Secondary data were collected from various journals, research publications, magazines and websites.

RESULTS AND DISCUSSIONS

1. AGE WISE CLASSIFICATION

TABLE 1: AGE WISE CLASSIFICATION

Age	No of respondents	Percentage
35-45	15	50%
45-55	4	13%
55-65	11	37%
Total	30	100

Source: primary data

2. EDUCATION QUALIFICATION WISE CLASSIFICATION**TABLE 2: EDUCATION QUALIFICATION WISE CLASSIFICATION**

Educational qualification	No of respondents	Percentage
Below SSLC	12	40%
SSLC	5	17%
+2	9	30%
Degree	3	10%
Above degree	1	3%
Total	30	100

Source: primary data

3. FAMILY SIZE WISE CLASSIFICATION**TABLE 3: FAMILY SIZE WISE CLASSIFICATION**

No of family members	No of respondents	Percentage
Below 4	6	20%
4-5	15	50%
5-6	9	30%
Total	30	100

Source: primary data

4. CLASSIFICATION ON THE BASIS OF OCCUPATION OF SPOUSE**TABLE 4: OCCUPATION OF SPOUSE**

Occupation	No of respondents	Percentage
Daily labour	7	23%
Business	5	17%
Government job	2	7%
Others	16	53%
Total	30	100

Source: primary data

5. ANNUAL INCOME WISE CLASSIFICATION**TABLE 5: ANNUAL INCOME WISE CLASSIFICATION**

Annual income	No of respondents	Percentage
1000-2000	4	13%
2000-3000	1	3%
3000-4000	15	50%
4000-5000	2	7%
5000-6000	8	27%
Total	30	100

Source: primary data

6. CLASSIFICATION ON THE BASIS OF CATEGORY**TABLE 6: CLASSIFICATION ON THE BASIS OF CATEGORY**

Category	No of respondents	Percentage
BPL	17	53%
APL	13	43%
Total	30	100

Source: primary data

7. CLASSIFICATION ON THE BASIS OF AMOUNT OF SAVINGS IN KUDUMBASHREE**TABLE 7: AMOUNT OF SAVINGS IN KUDUMBASHREE**

Savings	No of respondents	Percentage
Upto 5000	7	23%
5000-10000	15	50%
10000-15000	8	27%
Total	30	100

Source: primary data

8. CLASSIFICATION ON THE BASIS OF SOURCE OF INCOME**TABLE 8: SOURCE OF INCOME**

Source	No of respondents	Percentage
Husband	29	97%
Others	1	3%
Total	30	100

Source: primary data

9. CLASSIFICATION ON THE BASIS OF SOURCE OF BORROWINGS AT THE TIME OF EMERGENCY

TABLE 9: SOURCE OF BORROWINGS

Sources	No of respondents	Percentage
Kudumbashree	14	47%
Friends/relatives	2	7%
Commercial bank	5	17%
Co-operative bank	8	27%
Others	1	3%
Total	30	100

Source: primary data

10. CLASSIFICATION ON THE BASIS OF FINANCIAL SERVICES PROVIDED BY KUDUMBASHREE

TABLE 10: FINANCIAL SERVICES PROVIDED BY KUDUMBASHREE

Financial services	No of respondents	Percentage
Short term borrowings	13	43%
Chit fund	8	27%
Short term loans	9	30%
Total	30	100

Source: primary data

11. CLASSIFICATION ON THE BASIS OF TYPE OF MICRO ENTERPRISE CONDUCTED BY THE KUDUMBASHREE

TABLE 11: TYPE OF MICRO ENTERPRISE CONDUCTED BY THE KUDUMBASHREE

Type of micro enterprise	No of respondents	Percentage
Pickle manufacturing unit	8	27%
Candle manufacturing unit	5	17%
Ornament manufacturing unit	4	13%
Others	4	13%
Total	30	100

Source: primary data

12. CLASSIFICATION ON THE BASIS OF AWARENESS ABOUT VARIOUS SUBSIDIES

TABLE 12: AWARENESS ABOUT VARIOUS SUBSIDIES

Awareness	No of respondents	Percentage
Yes	21	70%
No	9	30%
Total	30	100

Source: primary data

13. CLASSIFICATION ON THE BASIS OF FACILITIES GAINED AFTER JOINING KUDUMBASHREE

TABLE 13: FACILITIES GAINED AFTER JOINING KUDUMBASHREE

Facilities gained	No of respondents	Percentage
Home appliances	16	53%
Fridge	4	13%
TV	7	23%
Others	3	10%
Total	30	100

Source: primary data

14. CLASSIFICATION ON THE BASIS OF FINANCIAL AID TO SPOUSE DURING EMERGENCIES

TABLE 14: FINANCIAL AID TO SPOUSE DURING EMERGENCIES

Financial aid	No of respondents	Percentage
Always	19	63%
Sometimes	11	37%
Never	0	0
Total	30	100

Source: primary data

15. CLASSIFICATION ON THE BASIS OF PARTICIPATION IN GROUP DISCUSSION ON VARIOUS SOCIAL AND CURRENT ISSUES

TABLE 15: PARTICIPATION IN GROUP DISCUSSION ON VARIOUS SOCIAL AND CURRENT ISSUES

Awareness	No of respondents	Percentage
Always	15	50%
Sometimes	15	50%
Never	0	0
Total	30	100

Source: primary data

16. CLASSIFICATION ON THE BASIS OF RESPONDENTS OPINION ABOUT THE CHANGES CREATED BY KUDUMBASHREE

TABLE 16: OPINION ABOUT CHANGES CREATED BY KUDUMBASHREE

Changes created	No of respondents	Percentage
Yes	28	93%
No	2	7%
Total	30	100

Source: primary data

17. CLASSIFICATION ON THE BASIS OF TYPE OF CHANGES CREATED BY KUDUMBASHREE

TABLE 17: TYPE OF CHANGES CREATED BY KUDUMBASHREE

Type of changes created	No of respondents	Percentage
Own savings	15	50%
Own earnings	10	33%
Purchase power	4	13%
Others	1	3%
Total	30	100

Source: primary data

FINDINGS

The major findings are stated under each of the objectives of the study.

- Among the 30 respondents 50% are between 35-45 years, 13% are between 45-55 years, 37% are between 55-65 years.
- Among 30 respondents 40% of them have only educational qualification below 10th, 17% have SSLC, 30% have passed 12th/ Pre-Degree, 10% have the graduation qualification and remaining 3% of them have other qualifications.
- Out of the 30 respondents 20% have less than 4 family members, 50% have 4-5 family members, and 30% have above 5 family members.
- Among 30 respondents, the occupation of the spouse as daily labourers is 23%, business is 17%, 7% have Government jobs rest are doing other jobs.
- Among 30 respondents , annual income of 13% are between 1000-2000, 3% between 2000-3000, 50% between 3000-4000, 7% between 4000-5000 and 27% upto 6000.
- 53% of respondents are below poverty line and 43% are above poverty line.
- 27% are part of Kudumbashree since 5 years, 73% are part since more than 15 years.
- 97% obtain money from spouse and remaining 3% from others, to make investment in Kudumbashree schemes.
- 23% have savings upto 5000 in Kudumbashree, 50% have between 5000-10000, and 27% have savings above 15000.
- 47% borrow money from Kudumbashree, and 7% from friends and relatives, 17% from commercial banks , 27% from co-operative banks and 3% from other sources.
- 43% gets short term borrowings from Kudumbashree, 27% gets chit fund facilities and 30% gets short term loans from Kudumbashree.
- Among the 30 respondents 70% have membership in micro enterprise and 30% do not have any membership.
- Among the 30 respondents 27% are the members in pickle manufacturing unit, 17% are in candle manufacturing , 13% are in ornament manufacturing unit and 13% are in other units.
- Among the 30 respondents 70% are fully aware of various subsidies, and 30% have only little awareness about subsidies available to them.
- 53% are able to gain home appliances, 13% are able to acquire fridge, 23% can have TV and 10% are able to acquire other assets.
- 63% are able to provide financial aid to their spouse at all times and 37% are able to provide financial aid sometimes only.
- Among the 30 respondents 50% always participates in group discussion about current social issues and 50% conducts sometimes only.
- 93% of respondents are on the opinion that Kudumbashree have created massive changes in their day to days life.
- Among the 30 respondents 50% are able to have their own savings, 33% have their own earnings, 13% are able to improve their purchasing power and 3% have enjoyed other benefits after joining in Kudumbashree.

RECOMMENDATIONS

- The Kudumbashree units must try to add more social activities in their workings.
- The Punnala Grama Panchayath should take necessary steps for facilitating the marketing of Kudumbashree products.
- More awareness programmes regarding entrepreneurial development should be conducted to realize the entrepreneurial talents within each woman.
- More innovative ideas and thoughts should be included in micro enterprise units.
- Banks should encourage cash credit, term loans to the required Self Help Groups.
- Try to expand the investment pattern of members of Kudumbashree units to other sources.
- Kudumbashree units should take initiatives to conduct training classes to outside people to encourage their entrepreneurial talents.

CONCLUSION

Kudumbashree became the lifeline to many of the poor women in the state of Kerala. It assumed the status of helpline to many. It is a massive anti poverty programme of the Government of Kerala aiming at eradicating poverty and salvage the destitute from the wretches of extreme deprivation. Kudumbashree has gained national and international acclaim as an ideal and workable model of participatory development for eradicating poverty.

From the study conducted at Punnala Grama Panchayath It has been proved without any doubt that women empowerment is the best strategy for poverty eradication..This helps to understand that Kudumbashree units gives a new image for women especially, the rural women has changed to an extent, where they nearly has become self sufficient in their family by providing financial assistance to their spouse. It can be observed that there is a significant improvement in the quality of life of rural women through the micro enterprise. It also helps the women to have their own earnings and savings. It improves the purchasing power of women and to have aware about various social and current issues. Thus it helps to improve their interpersonal skills. Women who were regarded as voiceless and powerless started identifying their inner power, their strength, opportunities for growth, and their role in reshaping their own destiny. The process of empowerment becomes the beacon light to their children, their families and to the society at large. It opens new vistas in development history.

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NEED OF ENVIRONMENT CONSERVATION FOR THE SUSTAINABLE LIVELIHOODS

GHANSHYAM KUMAR PANDEY
RESEARCH FELLOW
AERC, DELHI SCHOOL OF ECONOMICS CAMPUS
UNIVERSITY OF DELHI
DELHI

SEEMA KUMARI
RESEARCH SCHOLAR
DEPARTMENT OF ECONOMICS
UNIVERSITY OF ALLAHABAD
ALLAHABAD

ABSTRACT

Will the world be able to sustain economic growth indefinitely without running into resources constraints or despoiling the environment beyond repairs? Climate changes is one of the most important global environment challenges, with implication of food production, water supply, health, energy, etc. This paper addresses these challenges. The issue of highest importance to developing countries is reducing the vulnerability of the natural and socio-economic system to the projected climate change.

KEYWORDS

Agriculture, climate change, challenge, Environment, livelihood, nature.

INTRODUCTION

The rapid economic growth achieved by most of the developing countries after globalization has adversely affected the quality of the environment, imposed considerable social costs and livelihood impacts, and has become a major threat to sustainable development. As a subject of inquiry the economic development of poor countries is only a half-century old. Classical economists were certainly much concerned to identify the social processes that create prosperity (smith); but it was not until the emergence of independent nations in Asia and Africa that economic development became a specialised field. In order to improve upon contemporary development processes economists studied the impact of economic decisions on human wellbeing not only in the present and near future, but in the distant future too. Unfortunately they also became attached to the idea that an increase in gross national product (GNP) is the key to economic development and to the elimination of poverty. To be sure, GNP growth was recognised to be a means only, but the means took on such a life of their own in policy discussions, that if someone were to ask, "growth in what?", the response would promptly be, "growth in GNP." (Gupta, 2002).

QUESTION OF SUSTAINABILITY

As a society, we must accommodate population growth which puts increased demand on natural resources. i.e., land for farming (food production, housing etc) water, minerals. We must also maintain natural resources in good condition for future generations. So as we develop (build houses/sky scrapers/dams/roads etc) we must do so in a manner that conserves the environment so it is in good conditions for future generations. This is where the term ecologically sustainable development comes in. In short, economic development is the growth and expansion of our modern civilisation, whereby it must take place in a manner that conserves the environment. If not it resources may run out (crude oil perhaps) or lose their purity (think air pollution in major cities or the damage coal seam gas fracking has on ground water quality or ozone layer depletion).

Climate change is one of the most important global environmental challenges facing humanity with implications for food production, natural ecosystems, freshwater supply, health, etc. According to the latest scientific assessment, the earth's climate system has demonstrably changed on both global and regional scales since the preindustrial near. Further evidence shows that most of the warming (of 0.1°C per decade) observed over the last 50 years, is attributable to human activities¹. The Intergovernmental Panel on Climate Change (IPCC) projects that the global mean temperature may increase between 1.4 and 5.8 degrees Celsius (C) by 2100. This unprecedented increase is expected to have severe impacts on the global hydrological system, ecosystems, sea level, crop production and related processes. The impact would be particularly severe in the tropical areas, which mainly consist of developing countries, including India (Sathaye et al., 2006).

ENVIRONMENT CONSERVATION AND LIVELIHOOD OPTION

In June 1992, Manmohan Singh, then finance minister in the Government of India, delivered the Foundation Day Address of the Society for Promotion of Wastelands Development (SPWD). He spoke on the topic 'Environment and the New Economic Policies'. In his talk, Singh urged "objective standards industry-wise for safeguarding the environment, asking industry to certify compliance with these standards, institution of an effective system of verification and industry audit and heavy penalties for non-compliance with approved environmental standards and norms." When speaking of environmental issues, it is important to recognise that in a densely populated country like India, these have both an ecological as well as human dimension. Programmes to clear-cut natural forests and replace them with exotic species deplete the soil even as they deprive peasants of access to fuel, fodder and artisanal raw material. Mining projects if not properly regulated or carried out with state-of-the-art technologies, ravage hillsides and pollute rivers used by villagers downstream. In this sense, in India, environmental protection or conservation is not a luxury – as it might be in rich, under-populated countries – but the very basis of human (and national) survival. The trends of unstable and inefficient growth are happening on a local, national and global scale. Sustainability is a term used to describe an efficient way of living to try and reverse some of the damage done and preserve our resources for future generations. Experience of the recent past has brought to us the realization of the deadly effects of development on ecosystem. The entire world is facing a serious problem of environmental degradation due to indiscriminate development. Industrialization, burning of fossil fuels and massive deforestation are leading to degradation of environment. Today the atmospheric level of carbon dioxide, the principal source of global warming, is 26% higher than pre-industrial concentration. While economic development should not be allowed to take place at the cost of ecology or by causing widespread environment destruction and violation; at the same time the necessity to preserve ecology and environment should not hamper economic and other developments. Both development and environment must go hand in hand, in other words, there should not be development at the cost of environment and vice versa, but there should be development while taking, due care and ensuring the protection of environment. In both the developmental and environmental camps, the concept of sustainable development was seen a means of achieving development without degradation. Two decades later, it has become a convenient slogan behind which countries like India can conceal "business as usual" growth policies. Despite India's rapid growth, over 33% of its households still have no access to electricity — and over 70% still use fuel-wood, twigs and animal dung for cooking. In 2011, non-commercial energy comprised 24% of India's primary energy pie, following coal at 42%. Additionally, India's rural communities rely on female

labour to collect and burn vast amounts of carbon-based fuels. This is possible because the opportunity cost of “female energy” remains negligible as long as the women are uneducated and unskilled. Environmental cost assessment by scholars varies from 4.5% to 5% of GDP due to air pollution, groundwater mining, and deteriorating quality of aquifers, land degradation and deforestation. Annual economic costs of air pollution, contaminated water, soil degradation, and deforestation were estimated to be 8% of GDP by Tata Energy Resource Institute (TERI).

Unfortunately, humanity’s behaviour remains utterly inappropriate for dealing with the potentially lethal fallout from a combination of increasingly rapid technological evolution matched with very slow ethical-social evolution. The human ability to do has vastly outstripped the ability to understand. As a result civilization is faced with a perfect storm of problems driven by overpopulation, overconsumption by the rich, the use of environmentally malign technologies, and gross inequalities. They include loss of the biodiversity that runs human life-support systems, climate disruption, global toxification, alteration of critical biogeochemical cycles, increasing probability of vast epidemics, and the spectre of a civilization-destroying nuclear war. These biophysical problems are interacting tightly with human governance systems, institutions, and civil societies that are now inadequate to deal with them.

The rapidly deteriorating biophysical situation is more than bad enough, but it is barely recognized by a global society infected by the irrational belief that physical economies can grow forever and disregarding the facts that the rich in developed and developing countries get richer and the poor are left behind. And the perpetual growth myth is enthusiastically embraced by politicians and economists as an excuse to avoid tough decisions facing humanity. This myth promotes the impossible idea that indiscriminate economic growth is the cure for all the world’s problems, while it is actually (as currently practiced) the disease that is at the root cause of our unsustainable global practices.

In the face of an absolutely unprecedented emergency, society has no choice but to take dramatic action to avert a collapse of civilization. Either we will change our ways and build an entirely new kind of global society, or they will be changed for us.

India has potential to supply substantial mitigation at a relatively low price. Major opportunities exist both on the supply and demand side of energy, in case of carbon emissions. There are also low cost opportunities for mitigation of methane and nitrous oxide. As Table 2 shows, in the short-run, till the Kyoto Protocol period, substantial potential of mitigation of carbon, methane and nitrous oxides exist at costs below \$30 per tonne of carbon equivalent (or \$8 per tonne of carbon dioxide equivalent), which is below the prevailing price of traded carbon in European market.

TABLE 1: MITIGATION OPTIONS, POTENTIAL AND COSTS

S. No.	Green House Gas	Mitigation Options	Mitigation Potential 2002-12 (Million Tonnes)	Long term Marginal Cost (\$ tonnes of Carbon Equivalent)
1.	Carbon	Demand-side Energy Efficiency	45	0-15
		Supply-side Energy Efficiency	32	0-12
		Electricity T & D	12	5-30
		Renewable Electricity Technologies	23	3-15
		Fuel Switching-gas for Coal	8	5-20
		Forestry	18	5-10
2.	Methane	Enhanced Cattle Feed	0.66	5-30
		Anaerobic Manner Digesters	0.38	3-10
		Low Methane Rice Varieties	Marginal	5-20
		Cultivar Practices	Marginal	0-20
3.	Nitrous	Improved Fertilizers Application	Marginal	0-20
		Nitrification Inhibitors	Marginal	20-40

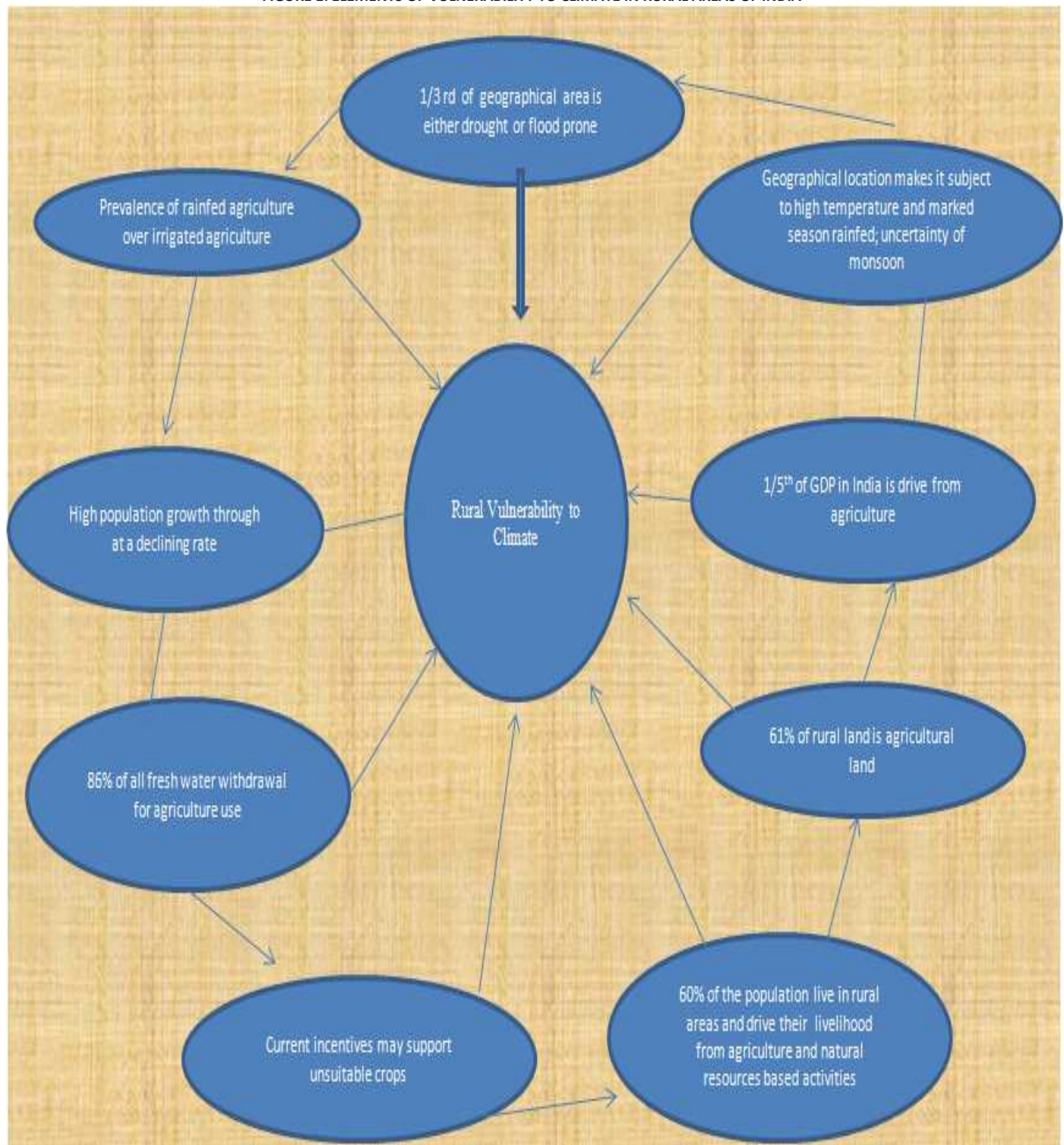
Source: Chandler, et. al., (2002).

AGRICULTURE, FOOD SECURITY AND ENVIRONMENTAL CONSERVATION

Environment concerns are among the policy priorities in India, particularly degradation of land and water is alarming (Dev, 2006). Total food production has nearly trebled since 1960, per capita production has increased by 30%, and food prices and the percent of undernourished people have fallen, but the benefits have been uneven and more than one billion people still go to bed hungry each night. One of the major causes of environment degradation in India could be attributed by rapid growth in population, which is adversely affecting the natural resources and environment. Furthermore, intensive and extensive food production has caused significant environmental degradation (Nagdev, 2007).

One of the key challenges facing the world is to increase agricultural productivity, while reducing its environmental footprint through sustainable intensification, given that the demand for food will likely double in the next 25-50 years, primarily in developing countries. Unfortunately, climate change is projected to significantly decrease agricultural productivity throughout much of the tropics and sub-tropics where hunger and poverty are endemic today. The Right to Food should become a basic human right; a combination of political will, farmers’ skill and scientists’ commitment will be needed to achieve this goal.

FIGURE 1: ELEMENTS OF VULNERABILITY TO CLIMATE IN RURAL AREAS OF INDIA



Source: World Bank (2006)

THE UNDERLYING MAJOR CAUSES OF ENVIRONMENTAL DEGRADATION

Environmental degradation is a result of the dynamic inters play of socio-economic, institutional and technological activities. Environmental changes may be driven by many factors including economic growth, population growth, urbanization, intensification of agriculture, rising energy use and transportation. Poverty still remains a problem at the root of several environmental problems.

SOCIAL FACTOR

1. Population is an important source of development, yet it is a major source of environmental degradation when it exceeds the threshold limits of the support systems. Unless the relationship between the multiplying population and the life support system can be stabilized, development programmes, howsoever, innovative are not likely to yield desired results. Population impacts on the environment primarily through the use of natural resources and production of wastes and is associated with environmental stresses like loss of biodiversity, air and water pollution and increased pressure on arable land.
2. India supports 17 per cent of the world population on just 2.4 per cent of world land area. Its current rate of population growth at 1.85 per cent continues to pose a persistent population challenge. In view of the linkages between population and environment, a vigorous drive for population control need hardly be over emphasised.
3. Poverty is said to be both cause and effect of environmental degradation. The circular link between poverty and environment is an extremely complex phenomenon. Inequality may foster unsustainability because the poor, who rely on natural resources more than the rich, deplete natural resources faster as

they have no real prospects of gaining access to other types of resources. Moreover, degraded environment can accelerate the process of impoverishment, again because the poor depend directly on natural assets. Although there has been a significant drop in the poverty ratio in the country from 55 percent in 1973 to 36 percent in 1993-94, the absolute number of poor have, however, remained constant at around 320 million over the years. Acceleration in poverty alleviation is imperative to break this link between poverty and the environment.

ECONOMIC FACTORS

To a large extent, environmental degradation is the result of market failure, that is, the non-existent or poorly functioning markets for environmental goods and services. In this context, environmental degradation is a particular case of consumption or production externalities reflected by divergence between private and social costs (or benefits). Lack of well defined property rights may be one of the reasons for such market failure. On the other hand, Market distortions created by price controls and subsidies may aggravate the achievement of environmental objectives.

4. The level and pattern of economic development also affect the nature of environmental problems. India's development objectives have consistently emphasised the promotion of policies and programmes for economic growth and social welfare. Between 1994-95 and 1997-98, the Indian economy has grown a little over 7 per cent per annum: the growth of industrial production and manufacturing averaging higher at 8.4 per cent and 8.9 per cent respectively during these years. The manufacturing technology adopted by most of the industries has placed a heavy load on environment especially through intensive resource and energy use, as is evident in natural resource depletion (fossil fuel, minerals, and timber), water, air and land contamination, health hazards and degradation of natural eco-systems. With high proportion fossil fuel as the main source of industrial energy and major air polluting industries such as iron and steel, fertilizers and cement growing, industrial sources have contributed to a relatively high share in air pollution. A large quantity of industrial and hazardous wastes brought about by expansion of chemical based industry has compounded the wastes management problem with serious environmental health implications.

5. Transport activities have a wide variety of effects on the environment such as air pollution, noise from road traffic and oil spills from marine shipping. Transport infrastructure in India has expanded considerably in terms of network and services. Thus, road transport accounts for a major share of air pollution load in cities such as Delhi. Port and harbour projects mainly impact on sensitive coastal eco systems. Their construction affects hydrology, surface water quality, fisheries, coral reefs and mangroves to varying degrees.

6. Agriculture and land Degradation: Simulations using dynamic crop models indicate a decrease in yield of crops as temperature increases in different parts of India. However, this is offset by an increase in CO₂ at moderate rise in temperature and at higher warming; negative impact on crop productivity is projected due to reduced crop durations. Direct impacts of agricultural development on the environment arise from farming activities which contribute to soil erosion, land salivation and loss of nutrients. The spread of green revolution has been accompanied by over exploitation of land and water resources, and use of fertilizers and pesticides have increased many fold. Shifting cultivation has also been an important cause of land degradation. Leaching from extensive use of pesticides and fertilizers is an important source of contamination of water bodies. Intensive agriculture and irrigation contribute to land degradation particularly salivation, alkalization and water logging. It can be difficult to assess the actual extent and impact of land degradation. Farmers often mask the effects of degradation by converting their land to less demanding uses or increasing levels of compensating inputs (for example, applying more fertilizer just to maintain stable yields). There is rarely a one-tone relationship between the amount of degradation and the effect on yields. For example, on a relatively deep soil, erosion can be quite severe for long periods of time before there is any measurable effect on crop yields. There is limited empirical evidence of the critical thresholds at which degradation processes produce economic or environmental effects for different soil types, climates, and crops.

INSTITUTIONAL FACTORS

7. The Ministry of Environment & Forests (MOEF) in the Government is responsible for protection, conservation and development of environment. The Ministry works in close collaboration with other Ministries, State Governments, Pollution Control Boards and a number of scientific and technical institutions, universities, non-Governmental organisations etc.

8. Environment (Protection) Act, 1986 is the key legislation governing environment management. Other important legislations in the area include the Forest (Conservation) Act, 1980 and the Wildlife (Protection) Act, 1972. The weakness of the existing system lies in the enforcement capabilities of environmental institutions, both at the centre and the state.

There is no effective coordination amongst various Ministries/Institutions regarding integration of environmental concerns at the inception/planning stage of the project. Current policies are also fragmented across several Government agencies with differing policy mandates. Lack of trained personnel and comprehensive database delay many projects. Most of the State Government institutions are relatively small suffering from inadequacy of technical staff and resources. Although overall quality of Environmental Impact Assessment (EIA) studies and the effective implementation of the EIA process have improved over the years, institutional strengthening measures such as training of key professionals and staffing with proper technical persons are needed to make the EIA procedure a more effective instrument for environment protection and sustainable development.

CONCLUSION

From the above analysis it has been concluded that the sustainable development requires the States to ensure that they develop and use their natural resources in a manner which is sustainable. The goal of the government should be to come out with some laws and ideas with a commitment to preserve natural resources for the benefit of today & tomorrow. The projected climate change under various scenarios is likely to have implications on food production, water supply, biodiversity and livelihoods. Thus, India has a significant stake in scientific advancement as well as an international understanding to promote mitigation and adaptation. This requires improved scientific understanding, capacity building, networking and broad consultation processes. The government should also bring out some appropriate principles for the utilization of natural resources based upon harvests or use which is "prudent," or "rational," yet other agreements require an "equitable" use of natural resources, suggesting that the use by any State must take account of the needs of other States and people and lastly it is also required that, environmental considerations should be integrated into economic and other development plans, programmes, and projects, and that the development needs are taken into account in applying environmental objectives. Then we will be able to achieve sustainable development.

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