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# *Border Fencing and Saving-Spending Pattern: Evidence from Agartala*

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## **Abstract**

The study has motivated to assess the impacts of border fencing on the saving-spending patterns. Reviewing the related literature it has framed three hypotheses and adopting a cross-sectional study design with Convenience sampling technique, 112 respondents have been chosen and a survey has been conducted in Akhaura land customs station locality of Indo-Bangla border area of Agartala. The interview-schedule prior to the survey has been pre-tested with randomly chosen 30 respondents for assessing its reliability and validity. Significant statistical results have supported to refute all the null hypotheses and it has concluded selective demographics impact savings; construction of fencing has affected socio-economic status and saving-spending patterns of the borderland population. It has acknowledged few limitations, indicated policy implications and has sketched the roadmap for future research.

**Keywords:** Border fencing, savings, survey, inferential statistics.

**JEL classification:** C83, E26, G02, H31.

## **1. Introduction**

Literature has validated in delve studies have so far been attempted on the informal cross-border trade (hereafter ICBT) in its scope and dimensions [e.g., wildlife trade in different parts of the world due to lean border monitoring (Haas & Ferreira, 2015), agricultural products (Streloke, 2018), movements of varying ranges of products from China to Hong Kong (Wan et al. 2016) and between India and Bangladesh (Pohit & Taneja 2003; Sikder & Sarkar, 2005)]. The prominence of ICBT in the concerned countries' economies have also been documented (Neef, 2002; Egbert, 2006) even though in its essence it has been referred as the 'excluded trade' from the scope of the general administration (Thuen, 1999), notwithstanding it has been carrying out with the social interactions with parties involved (Castells & Portes, 1989) and in parallel to the formal trade (Laatz & Klima, 1995). Interestingly, ICBT has been embedded with formal trade (Round, Williams & Rodgers, 2008), taking place without formal documentations (Estrin & Prevezer, 2010), rather on

mutual trusts (Portes & Haller, 2005); has transformed as a source of livelihood (Neef, 2002) and has been identified as an avenue for profit-making brisk business (Duchene & Neef, 1998). Historically, ICBT has been taking place in an 'open market' having no legal basis for prolonged period (Laidler & Lee, 2014), evading taxes (Lesser & Moise-Leeman, 2009; Titeca & Kimanuka 2012) and lengthy official formalities (Afrika & Ajumbo, 2012), fuelled by multiple economic policy aspects (Yu, 2004), substantial price differences of necessities and electronic goods (Chan & Chong, 2013) and even curbing the galloping inflation (Chan, 2012) along with strong kinship network accessibility (Aker et al. 2014). Further, inasmuch the ICBT has remained unreported, tantamount to smuggle or grey market, where illegal products have been traded (Tiemann, 2005), hence researchers have inadequately addressed the issue (Maruyama & Trung, 2010). Scholars have been in consensus and have indicated its few inherent features e.g., the predominance of women (Titeca & Kimanuka, 2012; Brenton, Gamberoni & Sear, 2013), variety of trading

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products especially food stuffs, garments and electronic goods (Lesser & Moise-Leeman, 2009) and even though substantial number of participants have been economically relatively better off, breaking the fallacy of being underprivileged (Brenton, Gamberoni & Sear, 2013) but, highly vulnerable to multiple challenges including physical torture and sexual exploitations (Saana Consulting, 2015).

Breaking the stigma of 'land lockedness' and moving to 'land linkedness' (Maiti, 2002; Dutta & Bayes, 2004), the North East Region (NER) has likely to explore the huge potential of trade with the South East Asian countries (Das, 2000; Islam, 2011; Gogoi, 2014). Interestingly, The Indo-Bangla formal trade from Tripura has been quite different in terms of commodity compositions and directions in compared to other states of the NER (Dutta, 2014), even though the export basket of both the countries have been remained almost similar (Basu & Datta, 2007); but, that of Tripura and Bangladesh unlikely has been remained similar and favourable (Guha & Mahapatro, 2016). Scholars have acknowledged the gravity of parallel informal trade of the NER with neighbouring countries i.e., Bangladesh, Myanmar and Bhutan (Das, 2000; Bezbaruah, 2007). Literature has validated the ICBT has been carried out in twin manners viz., bootleg smuggling and technical smuggling, where the former has indicated smuggle of small quantum of goods e.g., sugar (Garry Pursell, 2007) by a large number of people especially women while the latter has implied different variants of corruptions like under-invoicing and paying bribes to concerned custom officials (Chakraborty, 2009). Coincidentally, as the current study has attempted to assay the impacts of border fencing on saving-spending pattern of the respondents, it has addressed the erstwhile economic benefits which had been deduced from the bootleg smuggling. Literature has conceded physical state enclosure has become crucial for protecting the sovereignty and to curb the cross-border infiltrations (Doty, 2007; Salter, 2008; Latham, 2010) notwithstanding it has unlikely to become the panacea (Banerjee, 2010). The Indo-Bangla border fencing has reflected the global common border demarcations phenomenon such as larger trends of enclosure, integrated check posts and joint border vigil (Bigo, 2007); and such fencing has holistic impacts engulfing socio-economic-cultural-political and bilateral relations (van Schendel,

2005; Pant, 2007; Jones, 2009), even though the fencing has been sporadic (Datta, 2000). The journey of informal to more formalized trade resulting policy executions like border fencing and creation of one stop border posts have yielded with mixed outcomes e.g., significant decrease in the employment rates of unskilled and semi-skilled manual labourers in African continent (Tyson, 2018), human right violations (Noorani, 2003), has become lean circumvent for trespassers (Shashikumar, 2009) in Indo-Bangla border areas even though, optimistically scholars have been argued the bilateral regional, demographic and social prolonged pending issues would likely be resolved after the completion of fencing (Roy, 2012).

Marketing and Economics literature has conceded households as rational decision making units (Becker, 1965; Blattberg et al. 1978) as the quantum of their current incomes and spending on food have been positively associated (Houthakker & Taylor, 1970; Prais & Houthakker, 1971) notwithstanding in varying degrees with the presence of children (Benus, Kmenta & Shapiro, 1976). Further, household decisions have also been influenced by other demographics such as age, family structure, education and employment levels (Sinha, 2012; Hou & Ma, 2013). The paradox of household income-consumption-saving and house prices have been studied in delve and scholars have indicated the house price fluctuations have significant influence on the household savings (Engelhardt, 1996) and consumption behaviours (Bostic, Gabriel & Painter, 2008). Household spending on the life insurance has been positively correlated with income levels (Nesterova, 2008) but inversely with inflation level (Outreville, 1996); whereas that of for health insurance has positive correlation with multiple demographics including income levels (Chakrabarti & Shankar, 2015) and tax incentives (Kumar, 2014). The importance of educating Indian girl children has been validated by scholars (Chanana, 2007; Government of India, 2008) and the uniqueness of Sukanya Samridhi Yojana-a dedicated scheme for girl child launched in 2015 under the tag line *beti bachao beti parao* (save and educate girl child) have also been reported in the context of Tripura (Deb, 2016a). Literature on Indo-Bangla cross border trade and border fencing have been attempted extensively e.g., [economic and trade relations (CPR, 1995; Acharya & Marwaha, 2012), trade related joint ventures

(Bhattacharyya & Pal, 1998), trade in services (Rahman, 2000), informal trade (Pohit & Taneja, 2003), causes and remedies of trade imbalances (Rahman, 2005), cross-border problems (Das, 2006; Raju, 2016), trade patterns applying the purchasing power parity theory (Alam et al. 2009), border fencing and community responses (Bhattarai, 2013), challenges and solution of cross border trade (Rather & Gupta, 2014; CUTS International, 2014), fencing and changing security challenges (Ghosh, 2011; Dabova, 2014; Saddiki, 2016), developing production network (De & Majumder, 2014) and skewed cross-border trade patterns of NER (Guha & Mahapatro, 2016)]. The strand of studies have exhibited that notwithstanding multiple facets of the bilateral trade and border demarcations have been studied, but literature likely has been in deficit in addressing the impacts of border fencing on the saving-spending pattern of the impacted population and the current research has motivated to close the identified research gap based on the empirical evidence.

The contribution of the study towards literature likely has to be stated at least in four ways. Firstly, the study probably the first one in Indian context which has assessed the impacts of border fencing on saving-spending patterns of the affected population and has conceded significant impacts of border fencing based on empirical evidence. Secondly, it has validated the significant influence of demographics on saving decisions, in line with literature but has not traced any aggressiveness by youth, in contrast with few studies (Kasilingam & Jayabal, 2009). Thirdly, it has documented significant changes in the socio-economic status of the affected people especially women who have been forced to change their livelihood from bootleg smuggling to formal avenues such as by enrolling under the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) scheme. Fourthly, it has reported how the excessive spending on foods, garments and luxuries during pre-fencing timeline has been reduced substantially. Furthermore, post constructions of fencing the respondents have changed their spending in multiple purposes such as on the life and health insurance premiums, children education and on real estate. Finally, it has validated the art of disciplined personal finance as respondents have been saving in formal channels and borrowing by accessing banking services instead of exclusively borrowings from the multiple informal

channels.

*The study has motivated to assess the impacts of Indo-Bangla border fencing on the saving-spending patterns of the adjunct population of Akhaura land customs station area of Agartala.*

The reminder of the paper has been designed as in Section 2 hypotheses have been set, research methodology has been elaborated in Section 3, statistical results and discussion of those results have been presented in Section 4, in Section 5 the conclusion of the study, in Section 6 study limitations, in Section 7 practical implications of the findings and finally in Section 8 the future research directions have been presented.

## 2. Hypotheses

The study has reviewed the related literature to frame the hypotheses for executing the study.

### 2.1 Demographics and Savings

#### 2.1.1 Gender

Scholars have documented gender has varying degrees of influence on saving decisions e.g., women likely to save more for post-retirement due to longer longevity (Huberman, Iyengar & Jiang, 2007; Deb & Chavali, 2009) in risk averse instruments (Byrnes & Miller, 1999; Deo & Sundar, 2015); while men have saving preference for retirement and children (Berggren Birkeland, 2013; Deb, 2016). Oppose to these in three north-eastern Indian states viz. Nagaland, Mizoram and Meghalaya no such gender influence have been traced (Filipiak & Walle, 2015) while few researches have contradicted and have conceded women have less inclination towards saving (Fisher, 2010).

#### 2.1.2 Age

Aggressive saving attitudes by Indian youth have been reported in literature (Kasilingam & Jayabal, 2009) while globally safer instruments have been preferred by older people (Hurd, 1990; Guariglia & Rossi, 2002).

#### 2.1.3 Marital Status

Household joint saving decisions have become new research agenda (Bateman & Munro, 2005; de Palma et al. 2011) for specific purposes such as for retirement corpus (Johannisson, 2008; Nelson, 2014), retirement timings (Dew & Yorgason, 2010) and even simply for opening a bank account (Cole, Sampson & Zia, 2009).

**2.1.4 Income Levels**

Literature has pointed out high income individuals have lower saving tendencies but have more diversification in designing saving portfolios (Browning & Lusardi, 1996; Lusardi, 2003). Moreover, income uncertainty (Hochguertel, 2003) and marginal propensity to save (Bime & Mbanasor, 2011) have significant impacts on household savings.

**2.1.5 Education Levels**

Literature has validated positive impacts of education levels on saving decisions (Lusardi & Mitchell, 2014; Calcagno & Monticone, 2015). Further, financial literacy also has significant positive influence on household savings (Jariwala, 2013; Deuflhard, Georgarakos & Inderst, 2015, Deb, 2016b). So, it has been hypothesized that:

H1: Demographics significantly influence saving decisions.

**2.2 Fencing and Social Impacts**

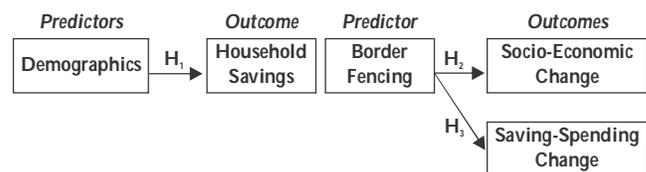
The planning for Indo-Bangla border fencing has been started in early 1960s when the then Assam government had insisted to depot Bangladeshi people (Hazarika, 2000; Joseph & Narendran, 2013) and eventually in 1986 India has started the fencing work (Datta, 2000), as a part of its border management strategy to protect its sovereignty (McDuie-Ra, 2012). The gravity of Indo-Bangla ICBT has been conceded in literature (Pohit & Taneja, 2003; Das & Pohit, 2006; Chakraborty, 2009) and the construction of fencing has been treated as another economic barrier for the borderland people which they had to overcome (Sammadar, 1998) even though bilateral formal trade has increased after the formation of the South Asia Free Trade Area (SAFTA) in 2004 (Bhattacharyay & De, 2005). Scholars have reported every year substantial number of Bangladeshi people illegally have been migrating to India for socio-economic and cultural purposes (Panda, 2008) which have created social problems including smuggling and have necessitated for construction of the border fencing (Shamshad, 2013). Accordingly, it has set the hypothesis as:

H2: Border fencing significantly influences the socio-economic status.

**2.3 Border Fencing and Household Spending**

Research has reported household incomes have been split into spending on food, grocery, clothing, education, transportation, healthcare, life insurance and entertainment-amusement including saving, in line with multiple discrete continuous extreme value (MDCEV) model (Bhat, 2005) and its extension (Pinjari & Bhat, 2010). A positive association between expenditure on food and family size has been documented with corresponding decrease in the utilities and other housing spending with given amount of income levels (Ferdous et al. 2010). The spending on expensive clothing, higher education, luxurious items, delicious foods and transportation likely to enhance with double source household incomes (Thakuria & Liao, 2005; Ferdous et al. 2010); while the decision to buy a car has also been influenced by presence of children (Bhat & Sen, 2006). In contrast, few studies have concurred high income households likely to spend in less proportions on healthcare, utilities, food, personal care and on transportation; rather have higher tendency towards multiple saving instruments (Dyan, Skinner & Zeldes, 2004). Moreover, spending on healthcare, child education, nutrition and food likely to have depended on which of the spouses have control over the incomes (Duflo, 2003) and in patriarchal society like in Tripura men have dominance in the household decisions. Studies have indicated substantial hike in fuel prices likely to have negative impacts on household transportation spending resulting changes in vehicle compositions and on car pooling along with two-wheeler accessibility (Li, von Haefen & Timmins, 2008; Bento et al. 2009). The strand of studies have indicated household spending has been depended on income levels and construction of Indo-Bangla border fencing in Akhaura land customs (LCS) locality likely to have significant impacts on the saving-spending patterns of the adjunct population and accordingly the present study has hypothesized that:

H3: Border fencing significantly influences saving-spending decisions.



### Fig. 1: A Conceptual Model of Indo-Bangla Border Fencing Impacts Study

In Figure 1, a conceptual model has designed wherein demographics (predictors) likely to have significant influence on the household saving decisions (outcome). Furthermore, Indo-Bangla border fencing (predictor) would probably have brought significant changes in the socio-economic status as well as saving-spending patterns (outcomes) in compared to the period when such fencing was not constructed.

## 3. Methodology

The overall approach followed for conducting the study has been termed as methodologies which have incorporated the following sub-sections:

### 3.1 Research Design

It has adopted Cross-Sectional study design and the survey has been executed during February-August, 2018. The study design has been followed to access its inherent benefits such as ease in quantifications (Pinsonneault & Kenneth, 1993; Fisher, 2010).

### 3.2 Methods

Data collection and analysis technique has been referred as a method which has been split as under.

#### 3.2.1 Schedule Development

Since respondents have been reluctant in answering personal finance related questions (Charchil, 2001), it has adopted a self-administered interview-schedule to unearth the impacts of border fencing on saving-spending pattern. The schedule has been framed in few steps viz. firstly, by applying few relevant words around 129 research papers, 6 study reports and 12 expert opinions published in four English business newspapers have been downloaded. Secondly, by reviewing the materials 60-items inventory in nominal scale have been prepared. Thirdly, the tool thereafter has been assessed by a pre-test with 30 randomly selected respondents for assaying its order and language, in tune with literature (Zikmund & Babin, 2012). Based on the Cronbach alpha score benchmark of .5 and above (Nunnally, 1978) 54 items have been retained. Finally, the survey has been conducted.

#### 3.2.2 Sampling Technique

The adjunct population of Akhaura LCS of Indo-Bangla border of Agartala has been assumed as study population. The enumerator has conducted the survey in the Joypur locality and has randomly chosen 112 respondents, i.e., by applying Convenience (non-probability) sampling technique. The sample size has been oscillating within the adequate range of 30 and 500 as social scientists have recommended (Roscoe, 1975; Isreal, 2013).

### 3.2.3 Data Collection Design

#### 3.2.3.1 Primary Data

The schedule has five sections, Section I has comprised of 12 questions addressing general and demographic details, Sections II and IV have 14-pairs nominal type questions each for assaying the perceptions about impacts of fencing on socio-economic aspects before and after construction of the fence. Similarly, Section III & V have 13-pairs nominal type items each addressing the impacts of fencing on saving-spending pattern before and after the construction of fencing. The enumerator has used a cover letter containing user-friendly instructions to answer the questions and items, in line with the advices of the scholars (Dillman, 1978) and has translated the items into local language (Bangla), has explained the technical terms, whenever requested to arrest the risk of non-comprehension (Peytchev et al. 2010). Moreover, he has assured the respondents about strict adherence with data collection ethicality.

#### 3.2.3.2 Secondary Data

The primary source has been included the original research papers accessed from an Indian central university digital library INFLIBNET South Sindhu list of subscribed journals and the papers published by prominent publishers such as Sage, Emerald, Springer, Elsevier and Wiley. The secondary sources have been included expert opinions and study reports. Tertiary sources has covered Google Scholar, Research Gate and Social Science Research Network (SSRN) which have been duly accessed for assaying the strand of studies on the research problem.

### 3.2.4 Data Analysis Strategy

For data processing and analysis it has applied IBM-Statistical Package for Social Science (SPSS)-20. Further, Microsoft Excel & Strata have also been partially run.

**Table 1: Study Variables\***

Predictors	Outcomes	Extraneous
Demographics	Saving	Peer-Group Influences
Border Fencing	Socio-Economic Changes	
	Saving-Spending	

\*authors' compilation

The study parameters have been presented in Table 1 where predictors likely to have influence on the outcomes when the extraneous variable has been controlled.

**3.4 Significance Level**

The significance level ( $\alpha$ ) for statistical tests has set at 5%

i.e., 95% confidence level has been presumed.

**3.5 Statistical Tests**

The preference and rationality for statistical tests have been summarized in Tables 2 & 3 respectively.

**Table 2: Choice of Statistical Tests\***

Tests	Variables						Objectives	Null Hypotheses
	Predictors			Outcomes				
	Name	Measurement	No.	Name	Measurement	No.		
Ordered Regression	Demographics	Nominal (2 or more types of Categorical) Nominal (Categorical)	5	Savings	Nominal (Categorical)	1	To predict the saving decisions based on the value of five predictors.	H01
Dependent Paired sample t-test	Border Fencing	Nominal (2 types of Categorical)	2	Socio-Economic Changes, Savings-Spending	Nominal (Categorical)	1	To Compare the mean of the differences between two related groups on the same dependent variable.	H02, H03

**Table 3: Assumptions Hold for Selected Statistical Tests\*\***

Tests	Type	Rationale
Ordered Regression	Parametric	Outcome has been measured on continuous level (interval data), two predictors each are measured on continuous level (interval data), linearly related, independence of observations, sampling distribution has been normally distributed with sample size (n)>30, there is no multicollinearity problem as well as any significant outlier with the data set.
Paired Sample Dependent t-Test	Parametric	Nominal Data, linearly related, Sample size (n)>30, sampling distribution is bivariate and normally distributed.

\*\*authors' compilation

### 3.6 Research Validities

Research validity has been referred as a right measure, i.e., the truthfulness of the findings (Hashim, Murphy & O'Connor, 2007) about the extent of the capability of a research instrument which has intended to measure the research questions (Robson, 2011). Different types of research validities have been tested e.g., the internal (based on inferential statistical results), construct (data collection tool i.e., the interview-schedule and the hypotheses have been set to measure the research question), contents (items have addressed the study objectives), concurrent (findings have correlated with literature) and conclusions (sample based statistical results have generalized to the study population).

## 4. Findings & Interpretation

### 4.1 Descriptive Statistics

Respondents' general information has been collected in nominal scale and have been summarised in mode. It has reported lion's share of the respondents are men (88.4 percent), in the age group of 35-34 years (47.3 percent), married (67.86 percent), educated up to matriculations (69.6 percent), general in caste (84.8 percent), self employed

(51.8 percent), having monthly income in the tune of INR .010001-.025 mn (57.1 percent), total monthly spending in the tune of INR .009001-.02 mn (48.2 percent), monthly savings INR up to .01 million (50.9 percent), monthly spending for food staffs INR .005 mn (52.7 percent), monthly healthcare spending up to INR .001 mn (50.9 percent) and monthly spending on education up to INR .001 mn (64.3 percent).

### 4.2 Inferential Statistics

Appropriate numerical techniques have been applied to test the null hypotheses for estimating the probable behaviour of the studied population.

#### 4.2.1 Ordered Regression

Ordered logistic regression has been used to predict the statistically significant impacts of the predictors on an ordinal outcome, i.e., to test H01. Scholars have conceded that if the assumptions of the ordered logit model are met, then all of the corresponding coefficients (except the intercepts) should be the same across the different logistic regressions, other than differences caused by sampling variability hence referred to as the parallel lines or parallel regressions assumptions (Williams, 2006).

Iteration 0: log likelihood = -370.60264  
 Iteration 1: log likelihood = -358.605  
 Iteration 2: log likelihood = -358.51248  
 Iteration 3: log likelihood = -358.51244  
 Iteration 4: log likelihood = -358.51244

No. of observations = 112  
 LR chi<sup>2</sup>(4) = 28.65  
 Prob > chi<sup>2</sup> = 0.0000

Log likelihood = -198.357

**Table 4: Ordered Logit Estimates\***

Savings	Coefficient	SE	z	p>  z	95% CI	
Gender	.0167	.0009	18.55	.000	.01910	.01523
Age	.1645	.0127	12.95	.000	.1423	.1945
Marital status	.1057	.0145	7.28	.001	.02783	.0268
Income Levels	.2478	.0143	17.32	.000	.0245	.0892
Education Levels	.0811	.0077	10.53	.000	.0198	.07830

\*primary data

From Table 4, in the output above, at iteration 0, a null model, i.e., the intercept-only model has been fitted. It then has moved on to fit the full model and has stopped the iteration process once the differences in log likelihood between successive iterations have become sufficiently small. The final log likelihood (-358.51244) has been shown again, which would be used in comparisons of nested models. The Log likelihood of the fitted model has been used in the Likelihood Ratio Chi-Square test to assess whether all the predictors' regression coefficients in the model have been simultaneously zero and in tests of nested models. The Likelihood Ratio (LR) in the Chi-Square test has referred that at least one of the predictors' regression coefficient is unlikely equal to zero in the model. The number in the parenthesis has indicated the degrees of freedom of the Chi-Square distribution used to test the LR Chi-Square statistic and has been defined by the number of predictors in the model. The LR Chi-Square statistic can be calculated by  $-2*(L(\text{null model}) - L(\text{fitted model})) = -2*((-212.683) - (-198.357)) = 28.652$ .  $\text{Prob} > \chi^2$  has been referred the probability of getting a LR test statistic as extreme as, or more so, than the observed under the null hypothesis; the null hypothesis is that all of the regression coefficients in the model are equal to zero. It has implied the probability of obtaining this chi-square statistic (28.65) if there is in fact no effect of the predictor variables. The small p-value from the LR test,  $<.05$ , has provided evidence to conclude that at least one of the regression coefficients in the model is not equal to zero (Long & Freese, 2006; Naderi, 2002). The coefficient column has implied that for a unit increase in the predictors how much corresponding change would taken place on the outcome. The first predictor gender would likely to increase in the z-score in favour of savings by .0167 points. Similarly, saving would be increased by .1645, .1057, .2478 and .0811 points respectively for a unit increase in the remaining four predictors. The standard interpretation of the ordered logit coefficient is that for a one unit increase in the predictor, the response outcome level is expected to change by its respective regression coefficient in the ordered log-odds scale while the other variables in the model are held constant. The SE has referred the standard errors of the individual regression

coefficients. They have been used in both the calculation of the z test statistic and the confidence interval of the regression coefficient. The next columns, z and  $p > |z|$  have been referred as the test statistics and p-value, respectively, for the null hypothesis that an individual predictor's regression coefficient is zero given that the rest of the predictors are in the model. The test statistic z has indicated the ratio of the coefficient to the standard error (SE) of the respective predictor. The z value has followed a standard normal distribution which has been used to test against a two-sided alternative hypothesis that the coefficient is not equal to zero. The probability that a particular z test statistic is as extreme as, or more so, than what has been observed under the null hypothesis has been defined by  $p > |z|$ . The z test statistic for the predictor gender has been computed as (.0167/.0009) 18.55 with an associated p-value of 0.000. The study has set the alpha level to .05, hence likely fail to reject the null hypothesis and has to conclude that the regression coefficient for gender has not been found to be statistically different from zero in estimating the saving behaviour, given remaining predictors in the model. The z test statistic for the predictor age (.1645/.0127) has been computed as 12.95 with an associated p-value of .000. Hence it would reject the null hypothesis and has to conclude that the regression coefficient for age has been found to be statistically different from zero in estimating the saving behaviour given remaining predictors in the model. Similarly, the z test statistic and associated p-values for the remaining three predictors have been computed which have indicated likely to reject the null hypotheses and the study probably to conclude that the regression coefficient for these three predictors-marital status, income levels and education levels have been found to be statistically different from zero in estimating the saving behaviour given remaining predictors in the model. The final column, 95% Confidence Interval (CI) for an individual regression coefficient given the other predictors are in the model. For a given predictor with a level of 95% confidence, the study would conclude that, it has been 95% confident that the true population regression coefficient would lie in between the lower and upper limit of the interval.

**Table 5: Pseudo R-Square\***

Cox and Snell	.473
Nagelkerke	.561
McFadden	.649

\*primary data

**Table 6: Pseudo R-Square\***

Model	-2 Log Likelihood	Chi-Square	Sig.
Current Model	488.750	78.179	0.720
General Model	443.673		

\*primary data

From Table 5, the Pseudo R2 has referred as McFadden's pseudo R-squared which have estimated from the Ordered logit model has a high level of goodness of estimates and the predictors used in the model have described a large proportion of changes in the outcome. The goodness of fit statistics has indicated that the model is fitted much better than the location only model. Hence, the model with 2 factors in logit link has been treated as a good model, as scholars have concurred (Yatskiv& Kolmakova, 2011).

From Table 6, the rationality for the hypothesis of equality of parameters in all the categories of the estimated models has been computed. Considering the significance level of the Chi-square statistic in parallel regression test, it has assumed that the value of the status parameters for all answer groups are the same and fixed and so the estimation of the ordered logit model has been strongly based, in line with literature (Long & Freese, 2014).

**Table 7: Indicators of Goodness of Estimates\***

Statistic	Chi Square	Significance Level
Pearson	480.509	.347
Deviance	394.601	.995

\*primary data

From Table 7, the Goodness of Estimates has incorporated Pearson and Deviance tests with the null hypothesis of good estimation of the data by the model, so the Chi-square statistic computed by these tests should confirm the validity of the null hypothesis, in line with advices of the scholars (Oksuzler, 2008). Considering the significance level of calculated Chi-square, the data has been estimated properly by the model. Based on the significant results the study has likely to conclude about the reliability of the model. Finally, the findings of the Regression test have been correlated with literature as far as the influence of these predictors on the outcome has been concerned (Lusardi, 2003; Deb & Chavali, 2009).

**4.2.3 Dependent Paired Sample t-Test**

To compare the mean difference (rather difference between means as for independent t-test) of the respondents' perceptions about the socio-economic status before and after the border fencing construction as well changes in saving-spending behaviours before and after fencing, it has applied Dependent Paired sample t-tests. 14-paired items of Sections-II & III for addressing the former one and 13-paired items of Sections-IV & V for the latter have been compared to test H02 & H03 respectively.

**Table 8: Paired Samples Statistics (For Socio-Economic Status)\***

Pair	Items	Mean	N	Std. Deviation	Std. Error Mean
1	Illegal trade was the main source of livelihood. (B)	1.24	112	.430	.041
	Quantum of illegal trade has reduced substantially. (A)	1.26	112	.440	.042

\*primary data

Table 8 has reported the Descriptive Statistics, for the 1st pair the mean difference for before fencing (B) has been computed as 1.24 and that of after fencing (A) as 1.26. The standard error of mean differences has been computed as (SE=s/√ n) the standard deviation (s) of the samples

divided by square root of the sample size (n) which have been calculated as .041 and .042 respectively. Adopting the same procedures for rest of the pairs' descriptive statistics have been worked out.

**Table 9: Paired Samples Test (For Socio-Economic Status)\***

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	SD	SE of mean	95% CI of the difference				
				Lower	Upper			
Pair 1	-.018	.615	.058	-.133	.097	-.307	111	.0426

\*primary data

From Table 9, the first column has represented the mean difference between the socio-economic status of the respondents before and after the border fencing for 1st pair item of Sections II & III, which has calculated as -.018. The 2nd and 3rd columns have represented standard deviations and standard error of means. The test statistic 't' has been computed by dividing the mean by the SE of mean resulting as -.307. The degrees of freedom (df) have been calculated as 111 (n-1) as the same respondents have shared their perceptions about the items before and after the border fencing constructions. The rationality for applying the df has to compute the exact probability that a given value of 't' probably to occur if the null hypothesis is likely to be true (that is to say, there is no difference between mean values before and after fencing construction scenarios). The probability has been presented in final column titled as 'sig', which, by default has implied two-tailed probability since the study has not fixed any direction of the movement of the group differences. The computed sig. value likely has been emerged as significant

(p=.0426, p<.05) and it has probably to conclude that respondents' perceptions about socio-economic changes have more significant influences in the post fencing construction scenario than pre fencing construction period. The 95% confidence interval (CI) for mean differences has indicated the boundary limits within which the true mean values probably to lie i.e., within -.133 and .097. Similarly, the sig. values of remaining 13-paired items have been calculated as (.046, .048, .044, .016, .045, .0480, .036, .044, .049, .647, .038, .034 and .042). The findings have pointed out significant probability values between the mean differences of the perceptions before and after the construction of border fencing except for 11th pair which has asked about the preferred saving instruments. Finally, based on the majority of the significant results it has likely to reject H02 and has to conclude that border fencing has significantly influenced the socio-economic status. To test H03 it has repeated the aforesaid procedures and the descriptive statistics and paired sample t-test results for the first pair have been exhibited in Tables 10 & 11 respectively.

**Table 10: Paired Samples Statistics (For Socio-Economic Status)\***

Pair	Items	Mean	N	Std. Deviation	Std. Error Mean
1	Spending on food was mostly exorbitant. (B)	1.24	112	.419	.039
	Spending on food items have fallen substantially. (A)	1.24	112	.430	.041

\*primary data

From Table 10, the descriptive statistics, the last column the standard error of mean for first pair of item (food expenses) has been computed as .039 and .041 respectively before and

after the fencing construction. In corollary the values for remaining 12 pairs have been computed.

**Table 11: Paired Samples Test (For Socio-Economic Status)\***

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	SD	SE of mean	95% CI of the difference				
				Lower	Upper			
Pair 1	.000	.615	.058	-.115	.115	.000	111	.046

\*primary data

From Table 11, the computed sig. value likely to has emerged as significant ( $p=.042, p<.05$ ). Similarly the sig. values for rest of the 12-pairs have been calculated as (.032, .048, .048, .447, .034, .044, .045, .038, .047, .048, .633, .021 and .040). Interestingly, for 11th pair item which has asked whether the practice of borrowing from mahajans (informal lenders) has witnessed any changes after the construction of fencing has produced an insignificant value ( $p=.063, p>.05$ ). Based on these it has likely to reject the H03 and has to conclude that border fencing has significantly influenced the saving-spending decisions of the borderland population.

Most of the respondents in course of personal interviews have divulged some interesting facts notwithstanding initially they were reluctant to entertain the enumerator on the presumption he has been collecting data on behalf of the government. Inasmuch the enumerator being a local resident, has been succeeded in convincing them as it was an academic study and they were finally agreed to participate voluntarily. Thereafter he has approached 120 respondents of which 8 have unfortunately turned down

his request resulting the eventual sample size has been fixed at 112. Notwithstanding the participants have given their consent to responses, but a few of them initially were hesitating to share their saving details but, the enumerator has assured them about his strict adherence to data collection and analysis ethicality, and has successfully convinced them that individual responses would be merged in the total and in no way the responses would be accessible to others; moreover, these would be kept under lock and key. The prima facie negative attitudes about personal finance aspects were expected as literature has reported how respondents try to avoid their personal finance related questions hence personal interviews have been identified as a better tool for unearthing the truth (Mack & Ryan, 2006). The majority of the respondents have unequivocally expressed how their income levels, living standards and saving-spending patterns have been significantly impacted in a negative manner after the border fencing. The traders have complained about substantial downfall in their revenues and resulted profits since the Bangladeshi customers no longer visit their outlets. The women participants have aggressively alleged

that their desire to become self-dependent have been ruined as they have been bound to depend partially on their husbands and other male members of their families and only for few months in a year they have been working as a labourer under MGMNREGA scheme. The land disputes have also been identified as a major issue after the construction of the fencing. Further, they have informed their spending on expensive foods, luxuries and garments have been reduced significantly; but, post-fencing they have been spending on their children's education, healthcare; have enrolled under life insurance schemes, have started saving for retirements, in gold and in other formal avenues even though saving in chit fund schemes have also been highlighted. Surprisingly, the borrowings from informal sources have been continued even after the construction of the fencing and simultaneously many of them have been planning to construct their homes hence approaching banks for home loans.

### 5. Conclusion

The study has attempted to assay the impacts of Indo-Bangla border fencing on saving-spending patterns of the borderland population of the Akhaura land customs station locality of Agartala, the capital city of Tripura. Through extensive review of prior studies it has framed three hypotheses and a conceptual model for executing the study. Adopting cross-sectional research design with survey strategy and applying Convenience sampling technique data has gathered from 112 respondents. The interview-schedule has been pre-tested with randomly chosen 30 respondents for assessing the appropriateness of the words and order of the items before the execution of the final survey. The results of Kaiser-Meyer-Olkin (KMO) (for sample adequacy) and Bartlett's Test of Sphericity (matrix is not an identity matrix if having significant chi square output) have indicated the reliability (a good measure) and validity (a right measure) of the schedule respectively. The results .699 and .695 have comfortably exceeded the threshold limit of .6, as suggested by scholars (Kaiser & Rice, 1974). Ordered Regression has been applied to assess the impacts of selective demographics on household saving decisions and significant results have indicated likely to reject H01 and it has to accept the research hypothesis. The impacts of border fencing on the socio-economic status and on the saving-spending patterns have

been tested by running Dependent pair sample t-test where the respondents' perceptions on the stated items have been assessed before and after the fencing construction situations. It has compared the mean differences of the pre and post fencing scenario and has gathered significant evidence based on which it has likely to reject H02 and H03 i.e., in other words, the corresponding research hypotheses probably be accepted. The findings of the study have indicated few interesting aspects apart from the significant impacts of selective demographics on the saving behaviour of the sample respondents. The socio-economic impacts of Indo-Bangla border fencing in the life of the affected population of Akhaura LCS have revealed macroeconomic policy issue which could be tested in other border areas of the country. On the flip side, from the respondents' perspective, it has pointed out substantial decrease in the informal trade volume after the construction of fencing which has negatively impacted the household financial behaviour, a common phenomenon as witnessed in other parts of the world. The women likely been adversely affected mostly inasmuch they have been forced to restrain from the informal trade and have become dependent on the male members of their families for their livelihood. The fencing has also influenced the saving-spending avenues as most of the respondents have concurred post-fencing period significant changes have been taken place in their household finance especially in their spending behaviours. They have acknowledged more disciplined spending for healthcare, children's education and the like rather luxurious spending in pre-fencing era. As far as saving behaviour has been concerned, the respondents have been accessing formal financial services including life insurance notwithstanding informal sources have also being accessed.

### 6. Study Limitations

The academic audience should consider the following limitations before reaching conclusions. Firstly, it has conducted the study with a single objective, limited hypotheses and few variables; within a confined geographical location and with relatively smaller sample size. Secondly, academic papers, study reports and expert opinion published in English has only been reviewed hence materials on other languages have been excluded from the scope of the current research. Thirdly, instead of

adopting or adapting any data collection tool it has framed a self-administered interview-schedule. Fourthly, the survey has been carried out in 2018 even though the construction of fencing was completed few years back hence the threat of telescoping-a tendency of the respondents' over or under reporting unlikely to remained zero (Lynn, et al. 2004). Fifthly, the influence of the social-desirability bias (Crowne & Marlow, 1960) – a probability of the respondents to reply as expected by the enumerator has unlikely be entirely ruled out. Sixthly, the inferential statistical tools have their own inherent limitations hence the results likely be partially biased. Finally, instead of applying latest versions of SPSS and any advanced statistical softwares like R, E-views and Strata it has used IBM-SPSS version 20.

### 7. Practical Implications

The study has practical implications for a number of stakeholders. Firstly, the borderland people may use the report for redesigning their household budgets with more emphasis on healthcare, life insurance coverage, children's education and for housing. Moreover, the importance of having formal avenues of household savings such as bank products and gold has been highlighted. Secondly, the fencing affected population should plan to earn their livelihood by legal forms rather exclusively depending on illegal sources such as smuggling, as indicated by the study. Thirdly, borderland women may use the report in choosing their livelihood from multiple legal sources in addition to MGMNREGA rather bootleg smuggling. The other formal avenues e.g., domestic help, daily labourer in farming and in construction sector may be explored. Fourthly, the government officials may use the report for chalking out the rehabilitation and employment schemes for the affected population in collaboration with central government departments such as Skill India Mission for parenting job related and skill based trainings to the unemployed people. Fifthly, the officials of banks and post offices through agents may arrange financial literacy training programs for disseminating the importance of formal saving along with highlighting the ill-effects of informal saving instruments such as saving in chit funds and borrowing from mahajons at exorbitant interest rates. Finally, the deployed border security force (BSF) personnel should closely vigil the borders and should prevent any

sort of infiltration and ICBT so that the peace and prosperity of the locality could be maintained. The local administration should be in constant touch with the BSF and local people to avoid any sort of law and order problems. The importance of border fencing and a conducive environment for smooth cross border formal trade as reported in the study should be maintained.

### 8. Future Research Scope

The current study has drawn a future research roadmap. Firstly, the excluded variables such as impacts of border fencing on ICBT and on infiltrations may be studied extensively in future. Secondly, future research agendum may be to assess the saving-spending patterns after imparting the financial literacy training to the fencing affected people and the results may be compared with the present study for measuring the impacts of financial literacy training. Thirdly, by extending the current study, future research endeavour may be intra-state comparison of border fencing on the stated research topic for assessing the gravity of the impacts. Fourthly, the impacts of financial advices on the household savings (Vlaev et al. 2015) and on retirement corpus (De Nardi, French & Jones, 2016) may be studied on border fencing affected people for measuring the results, any deviations from similar type of studies carried out with different samples from non-fencing areas. Fifthly, the influence of self-efficacy i.e., the self belief of achieving the accumulated target funds (Bandura, 1997) without any professional advices and or training may be assessed in future. Finally, the gender impacts on the household saving decisions may be compared with the borderland people of Tripura with that of other states of the NER for measuring the gap, if any.

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# *Export Performance and Revealed Comparative Advantage of India for Handloom Industry*

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## **Abstract**

Export performance is a very crucial aspect in the globalised scenario. In the era of cross border trade, an industry wants to survive in the global market for effective financial development of that industry. The survival constrains of the industry is measured by the export performance. So, the foremost motive is to highlight the strength of export performance of the Handloom Industry in association with the international market. Export performance is measured through its quantitative method by applying different RCA indices. It is calculated through the Balassa Index and Lafay index. The indices are computed for traded products come under the handloom industry from the period of the year 2008 to 2017. The studied handloom products having HS code 50, 51, 52, 57, 58, 62, and 63 are being exporter through the world. Calculated indices indicate that some handloom products have an edge in terms of export performance throughout the study period. RCA indices showed an important measure through comparative advantage and reflected better insights for the competitiveness of the studied industry and provide suggestions related to trade for the international market. This study also attempts to indicate the trade balance of handloom products and the contribution of handloom export as compared to overall export of the country.

**Keywords:** Export performance, Handloom Industry, Revealed Comparative Advantage, Balassa Index, Lafay Index, Trade Balance.

## **1. Introduction**

A systematic comparative advantage is a simple explained concept within preidentified bodies of knowledge and it is used to provide the different answers of related trade questions such as "which regions and Countries have what types of comparative advantages" (Ten Raa and Mohnen 2001). Bela Balassa's influential paper (1965) used the method RCA for the first time. After that, the concept was used in several studies of UNIDO in 1986 alongside the review of World Bank in 1994 and the (OECD) in 2011. It was also used in publications related to academics by earlier authors and some of recently like Iapadre (2001), Laursen and Salter (2005), De Benedictis et al. (2008) and Amighini et al. (2011) to study or analyse the international trading effectiveness as well as to capture specialization in production. Soete and Wyatt (1983), Cantwell (1995), D'Agostino et al. (2013), Liegsalz and Wagner (2013) also studied the revealed comparative to review the patent data

and technological specialization. The discussion related to the trade, the concept of international competitiveness reflects the national ability of trade performance as compared to the other foreign countries (Bobirca and Miclaus, 2007). After the inception of the concept revealed comparative advantage, Liesner (1958) used for the first time in his study for the measurement of RCA. After that, Balassa (1965) used that concept provides the modified structure of RCA. Balassa (1965; 1977; 1989) have studied the RCA in different industries and manufacturing sectors. The RCA measurement is to determine the structure of trade and reflect the specialization of international trade of the countries, and it also gives the outline of several demand and supply factors. (Hilman, 1980, Yeats 1985, Vollrath 1991, Laursen 1998, Dalum et al. 1998, Bojnec, 2001, Widodo, 2009). Greenaway et al. (2008), Goldberg et al. (2010), Menezes-Filho and Muendler (2011), McCaig and Pavcnik (2012), and Autor et al. (2013) were studied the

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change pattern of trade barriers of different commodities and analysed the reflective structures of relative advantages of comparative measures of different countries. Descriptive kind of study had been done in many years. Ferti and Hubbard (2003) and Tongzon (2005) often measured the export-related factors and studied the relative strength of past and prospective trade procedures, trade tariffs, and export subsidies. Salvatore (2007) studied the Heckscher-Ohlin theory that discussed the comparative advantage of different countries reflects through the factors of relative endowment across nation and elements of relative price reflects trade efficiency for within and across the nations. There are several studies have been done by many economists that identified the factors of comparative advantage that is related to the demand and the preference of the country that is associated with export and also focused on trade specialization (Lundback and Torstensson, 1998), pattern of trade studied after demand and supply (Bojnec, 2001), trade specialization to increase the economies of scale of industry. (Bastos and Cabral, 2007). Technological specialization (Meliciani 2002) to economic growth is necessary for the country's export performance. A significant concept of literature that established the link between the economic development and complex export structure used the main component RCA in the empirical analysis of trade pattern and specialization strength (Hidalgo et al. 2007; Hausmann and Hidalgo 2011). Researchers are studying RCA that used most commonly for the formation of trade regulations and welfare measures of comparative advantage of any country. Some more research has been conducted that studied the countries' trade basic pattern of comparative advantage for another purpose. Kali et al. (2013), and

Barattieri (2014) investigated the production of the country and identified most significant commodities of demand and supply that reflected the trade pattern and degree of specialization, technology discussion or its improvement. This paper studies the trade pattern of export and evaluates the export performance of handloom product of India associated with international trade from the year 2008 to 2017.

## 2. Handloom Industry

Handloom Industry is the ancient industry that creates employment opportunity for economically unstable people of the general population alongside the farming business in India. The latest census conducted in the year 2009-10 revealed that there are 43.31 Lakh handloom weavers and associated workers operate approx. 23.77 lakh handlooms units. Handloom industry gives direct works to the workers alongside allied working opportunity to handloom weavers. The handloom industry distributed, disordered, and country-specific, which create significant place in the Indian economy. Handloom industry encourage huge population of handloom weavers and related workers to lower income group and caste-like SC, ST, and OBC. Handloom industry is labor-intensive and has no direct effect on the environment. Handloom industry involved in about 15% of the cloth production in India and contribute to the export earning of the country. India produces a total of 95% of the world's handmade fabric that represents the master class of Indian artisans and significance of handloom cloths in Indian perspective. (textile ministry annual report 2017-18). Year wise details of Handloom exports and Handloom cloth production are given below:

**Table 1: Source: Handloom Export Promotion Council (HPEC)**

Year	Handloom exports (Rs. In crore)	Handloom cloth production (million sq. Meters)
2008-09	1023	6677
2009-10	1252	6806
2010-11	1575	6907
2011-12	2624	6901

2012-13	2812	6952
2013-14	2233	7104
2014-15	2246	7203
2015-16	2353	7638
2016-17	2392	8007
2017-18	2280	7482

### 3. Literature review

#### 3.1 Revealed Comparative Advantage

There are many researches performed by using the concept of RCA on trade data of the country. Richardson and Zhang (2001) have analyzed the Balassa index of RCA of the USA to study the changes in exports according to different sectors, regions, and time. They find that modifications and variations took place across the world in the export data over the period. These changes and differences are accounted for by factors like per capita income of exporters and geographical constraints which varying across sectors and time. Bender and Li (2002) studied the export performance, export shift and RCA of the Latin American and East Asian regions throughout 1981-1997. They identified the relationship between export patterns through comparative advantage among different areas. They find the export data variations through comparison between the regions. The Vollrath (1991) index has been used for analyzing the differences in RCA among regions. Ferti and Hubbard (2003) examine the competitiveness of the agricultural sector of Hungary through the calculation of RCA index. A classification of indices as ordinal (assign the ranking by the degree of comparison to the products), cardinal (recognizes the level of comparative advantage or disadvantage for the country) and dichotomous (a type of differentiation in the binary form of products by comparative advantage or disadvantage) used. The study showed that RCA were useful as a binary analysis of comparative advantage, but less cardinal in identifying that particular group had no comparative advantage as Hungary. Leu (1998) studied the East Asian economic and identified the changes of comparative advantage by measuring the RCA index from United State America. The measurement revealed that changing environment is highly affect the development level of the countries.

Comparative advantages of each country illustrated by the relative price differences between the two countries. The lower relative prices show the higher comparative advantage between the countries (Salvatore,2007). The level of efficiency of production inputs is influenced by the differences in values so that a country utilize its available resources for making any industry much resourceful. Any industry or country will consider the production of that specialized goods, which is a high comparative advantage over different countries. Akhtar et al. (2008) have examined the growth potential of Pakistan footwear industry by measuring the revealed comparative advantage and export performance in the globalized. By measuring through the RCA methodology, the study identified that in the years 2003-06, the footwear industry had converted it's the conditions from negative traded value to positive traded value as compared to the China and India. Kowalski (2011) identified that comparative advantage is an essential factor of trade, whereas the geographic and capital to labor coverage are important factors that explain the trends of business for the industry. There were some other studied factors like energy supply and credit aspects affect the comparative advantage of the country. Some regionally based study between Latin America and Caribbean (LAC) and sub-Saharan Africa (SSA) during the period 1995-2010 of the export category for five sub-sectors of merchandise has been measured by revealed comparative advantage. Hailay (2014) identified the result that reflects the integration of low economic between the regions. Additionally, Latin America and the Caribbean has a stronger RCA than Sub-Saharan Africa (SSA) in the export items of food and sub-Saharan Africa (SSA) region has more RCA in the fuel export, agricultural raw material, metal and ores than Latin America and Caribbean (LAC). Shahzad (2015) measured the RCA index for Clothing

sector of India, Pakistan, and Bangladesh through Balassa Index for the study. The revealed comparative advantage showed that both India and Bangladesh were lagging in comparative advantage for textiles as compared to Pakistan. Whereas, in the case of clothing, Bangladesh dominated in term of high comparative advantage as compared to India and Pakistan. Dushyant et al. (2015) studied the trade between industries and RCA from 2002-13 of five countries: Czech Republic, Poland, Romania, Hungary, and Turkey in the global clothing and textile markets. Since Hungary, the Czech Republic and Poland reflected high intra-industry trade index whereas, an inter-industry trade structure measured of clothing and textiles for Romania. Turkey also showed comparative advantage in apparel when possessing an trade structure between industries. Yilmaz and Karaalp (2015) measured the revealed comparative advantage of Pakistan to global countries. The study identified that revealed comparative advantage was rising for India, stable for China and fluctuating for Pakistan. The findings reflect that carpet industry has the potential of growth over the years, and it can boost the export performance and employment of the country, considering the growth opportunities of cross border trade in the globalised scenario.

### **3.2 Handloom Industry & Export**

Singh Rajmani (1992) identified in research "Management in Handloom industry- A study of the production and marketing of handlooms for Exports" that the utility of handloom products in the country is very high and also the problems associated with it that are affecting the production and also hamper the industry's ability to fulfill the demand for foreign and local communities. M. Soundarapandian (2002) studied in the research that the cotton fabrics were the most demanded item which is exported to the foreign countries. The hand twisted yarn, handwoven cloths, and productive skills of weavers have been handed over from many generations. Maureen Liebl (2004) identified that Indian handlooms emerged as the most preferred exportable items explaining the potential of

these obsolete technologies. It needs the efforts through which new consumer could get exposure of those handloom items and make the industry much capable for meeting the new consumers demand and also need to examine the potential cause that has not been realized so far behind the present condition of the industry and should look for some effective interventions. Shameek and Sahana Mukerjee (2012) explained the export relevance for the improvement of Indian economic growth by studying data of the past two decades. Authors investigated the Indian export competitiveness of cotton by calculating through factors related to financial and gave policy measure for the upliftment of the existing conditions. It discussed the specific import-export barriers and recommended for absolute reduction or removal. It also discussed the individual government policies that initiate the exports. Raveendra, Venkata & Harshavardhan (2013), explained that traditional products such as handloom had a potential huge market over foreign countries. This sector contributed over 18.4 % of the total cloth production from the country and approx. 15% of total fabrics exports to a hundred and twenty-five countries. The handloom industry always finds difficulties for identifying effective buyers from different countries and in exporting and marketing of the products. The researcher suggested for taking initiatives that create proper awareness, marketing, and development of exports, motivate the stakeholders for the buyer-seller meet, international trade fairs, exhibitions and creating the effective concessional schemes that should be helpful for the handloom industry and to perform effectively in the exports. Kumar (2014) measured handloom exports during 2009-10. He identified that the order of USD 265 million that increased to USD 365 million in 2010-11. It registered a significant growth of 38% in that period. After that 2011-12, also a golden year for the handloom industry that registered the export of USD 554 million, an increase of 60% from last year. The biggest market of India's handloom export was the USA and EU.

#### 4. Indian Trade of Handloom Products

This data shows the export and import figure of handloom industry throughout 2008-17. The export of handloom product was highest over the year of 2013. Import to global countries always more than export. The import was most top in 2012.

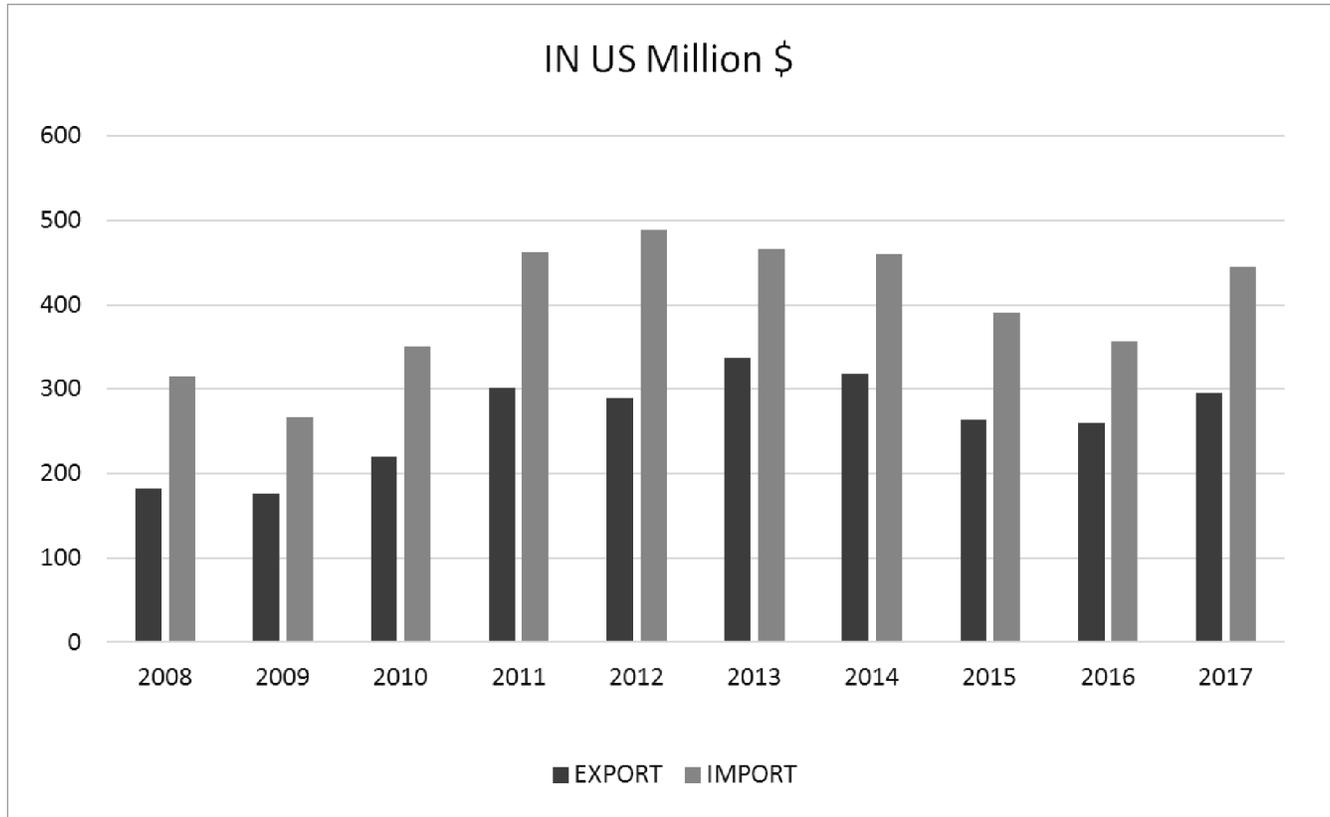


Figure 1: Source: ITC trade map and UN COMTRADE

#### 5. Top Export Countries of India

A table indicating the movement of the top 10 export countries during the years 2013-14 to 2017-18.

Table 2: Source: Handloom export promotion council

S. No.	Country	2017-18 Export Value INR crore	Position during 2017-18	Position during 2016-17	Position during 2015-16	Position during 2014-15	Position during 2013-14
1	USA	599.96	1	1	1	1	1
2	UK	168.46	2	3	2	2	2

3	SPAIN	136.65	3	5	7	10	11
4	ITALY	116.21	4	2	4	4	4
5	GERMANY	114.84	5	6	5	3	3
6	U ARAB EMTS	107.43	6	4	3	14	10
7	FRANCE	105.23	7	7	6	5	5
8	NETHERLAND	88.36	8	8	9	8	9
9	AUSTRALIA	74.82	9	9	10	6	8
10	JAPAN	74.74	10	10	8	7	6

A table is indicating the export of handloom products to top 10 countries during the years 2016-17 and 2015-16. Value in USD Million.

**Table 3: Source: Handloom export promotion council**

S.#	Country	2016-17		2017-18		% growth 2017-18 vs. 2016-17	
		USD		USD		USD	
1	USA	100.08		93.10		-6.97	
2	UK	18.45		26.14		41.66	
3	SPAIN	15.64		21.21		35.59	
4	ITALY	19.65		18.04		-8.20	
5	GERMANY	14.91		17.81		19.44	
6	U ARAB EMTS	18.18		16.68		-8.24	
7	FRANCE	14.54		16.33		12.28	
8	NETHERLAND	13.69		13.71		0.16	
9	AUSTRALIA	13.35		11.61		-13.03	
10	JAPAN	11.46		11.60		1.24	

The table shows the export of handloom items to top 10 nations amid the year 2015-16 and 2016-17. It might be seen from the above table that among the leading ten export places of handloom items amid FY 2016-17, UK, USA, UAE, and Germany have seen the decay of about 16%, 3%, 4% and 1% individually while France, Netherland, Italy, Spain, Australia, and Japan have enlisted a positive development of 13%, 29%, 14%, 41%, 33%, and 5% separately amid this period.

### 6. Percentage of Handloom Trade in Total Indian Trade

It is the percentage representation of Indian trade from the year 2008-17. There is an insignificant contribution of handloom export in total export of India. India exports less than 1.75% of handloom products over the years, whereas import is varying from 2 to 2.64% of handloom products.

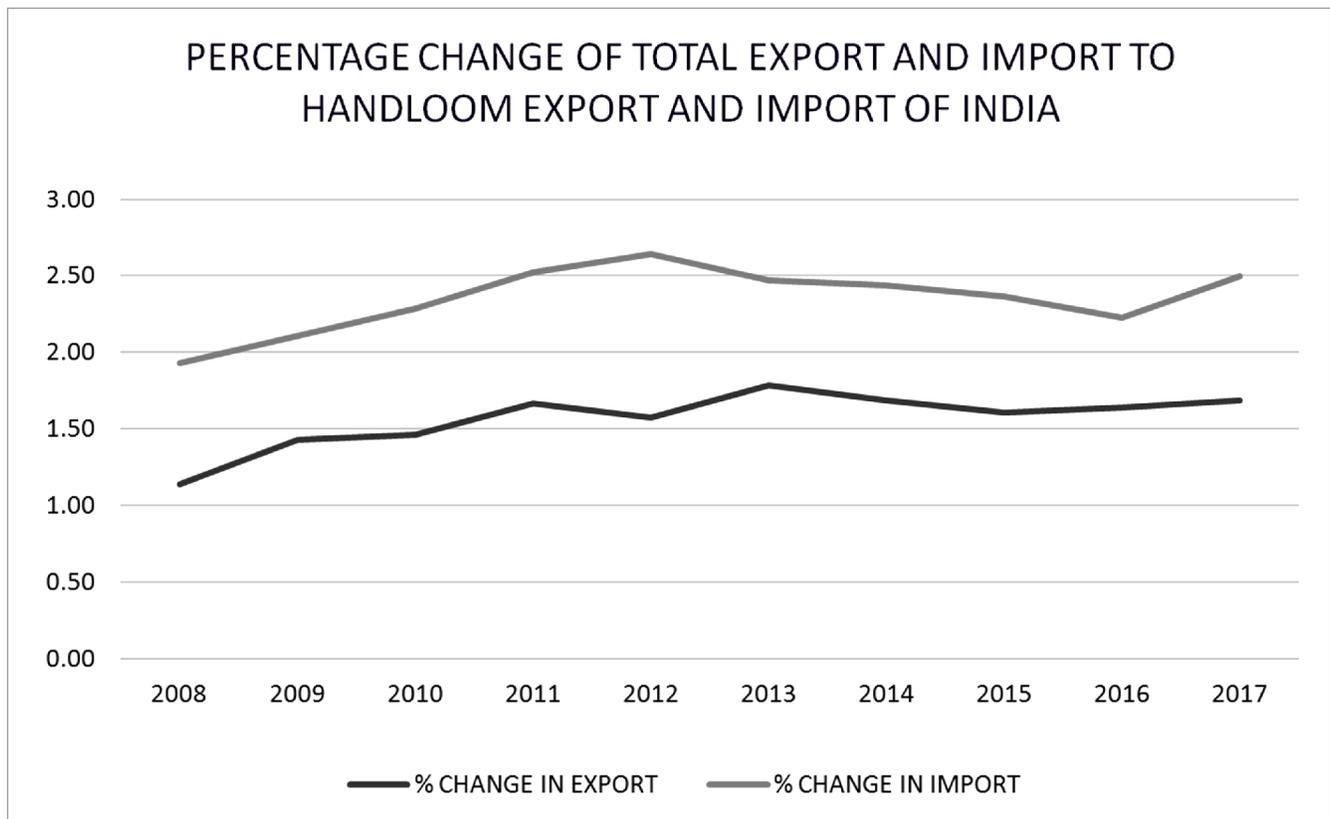


Figure 2: Source: Researcher’s calculation based on ITC trade map and UN COMTRADE

### 7. Trade Challenges of Handloom Industry

There are different trade difficulties looked by India that caused critical trouble in the current account deficit. India’s trade deficit augmented to USD 15.33 billion in April 2019 from USD 13.72 billion around the same time a year ago or above market expectations for USD 13.91 billion. The US government declared to pull back GSP (Generalized System of Preferences) advantages to India will affect export of handloom made home textiles items. Among the home textiles that would confront the heat include products made of silk, jute, and specific items, for example, inside decorations, banners, and national flags. National flags transcendently made and traded by SME part represent the biggest of sent out thing at Rs 466 crore (\$64 million). (Business Line, November 2018). India is the single biggest nation in the world with the most noteworthy number of handlooms, and it is difficult to source these products in a required quantity from different

countries. Concessional tariff under GSP benefits the US buyers as much as it helps Indian exporters, (Ujwal Lahoti, Chairman, Textile Export Promotion Council, November 2018). Handloom fabrics, floor covering, and silk items are fabricated by cottage industry in rural India subsequently giving work to countless female specialists helping in destitution lightening and consistent improvement of small clusters. Untimely withdrawal of GSP advantage will cast a budgetary weight on both the Indian producers and the US retailers, (Business Line, November 2018). The economic slowdown in the US and the EU seem to have adversely affected India’s handloom exports. Besides the global downturn, competition from other countries, fast-changing consumer preferences, high production costs, and market dynamics are said to be the primary reasons for the decline. Countries like Pakistan, Sri Lanka and Bangladesh are giving India fierce competition after the EU removed India from the preferential duty list in January

2014. The import duty of Indian Textile exports imposed by 8% in European countries as compared to Pakistan and Bangladesh, whose products are not liable for the same tax (Kanchan Srivastava, 2016). Majority of handloom weavers has the insignificant educational background that caused in unable to understand the government policies and schemes. The intervention schemes failed in the fulfilment of demands of the weaver community. Government department and policymakers also suffer from insufficient information that could reflect the actual conditions of weavers and handloom industry. Because of these situations, policy preparation and its objective deviated from the requirement of community. Due to the absence of facts and figures, the performance of the handloom industry become steady and gradually decreasing.

**8. Objective**

The objective of the study is to measure the export performance of Indian handloom industry by RCA using Balassa and Lafay Index from the period of the year 2008-17. The primary purpose of the study is to determine the comparative advantage of handloom products being traded over the year 2008-17.

**9. Methodology:**

**9.1 Balassa Index**

Balassa defined the method of calculating the revealed comparative advantage. It is a ratio of traded products of the industry by a particular country to the world and total trade of that country to the world. (Vollrath, 1991, Bojnec, 2001).

$$RCA_{ij} = \frac{X_{ij}/X_i}{X_{wi}/X_w}$$

where,

$RCA_{ij}$  = Revealed comparative advantage of the  $i^{th}$  country's  $j^{th}$  industry,

$X_{ij}$  = Commodity exports of the  $j^{th}$  industry by the  $i^{th}$  country,

$X_i$  = Total commodity exports of the  $i^{th}$  country,

$X_{wi}$  = World commodity exports of the  $j^{th}$  industry,

$X_w$  = Total commodity world exports.

The calculated value of the above index lies between 0 (zero) to  $\infty$  (infinity). If the value of the index is greater

than one, then it shows that country  $i$  have revealed comparative advantage in product  $j$  and value is less than one that indicates the country  $i$  shows its comparative disadvantage capability in the product  $j$ . The calculated RCA method was further redefined by Dalum et al. (1998), Laursen (1998) and Widodo (2009) and modified revealed comparative advantage (RCA) became revealed symmetric comparative advantage (RSCA). The value of RSCA lies between -1 to +1. A modified formula is as below:

$$RSCA_{ij} = \frac{[RCA_{ij} - 1]}{[RCA_{ij} + 1]}$$

$RSCA_{ij}$  represent the revealed symmetric comparative advantage of country  $i$  for product  $j$  when the value will be above 0 (zero) and vice versa if the value will be below 0 (zero).

**9.2 Lafay index**

Another method to reduce the empirical weakness of the Balassa index, G. Lafay (1992) is used. It is an index that combines production and trade variables. The Lafay Index is an index that measures the trade specialization concerning the specific product. The specialization of the country's trade is denoted by the higher positive value of the calculated index, whereas the negative value of index shows despecialization. The greater values of indices, the higher the degree of specialization/despecialization of country's trade in a particular production.

Lafay index evaluates the normalized trade balance of the particular country  $i$  for a specific product  $j$ . The normalized trade balance is the ratio of the trade balance for the product and to the total traded value.

$$LFI_j^i = 100 \left[ \frac{x_j^i - m_j^i}{x_j^i + m_j^i} - \frac{\sum_{j=1}^N (x_j^i - m_j^i)}{\sum_{j=1}^N (x_j^i + m_j^i)} \right] \frac{x_j^i + m_j^i}{\sum_{j=1}^N (x_j^i + m_j^i)}$$

Where  $x_j^i$  denotes the export of  $i^{th}$  country for the product  $j$  whereas  $m_j^i$  is the import of that product. If the calculated index has a positive value for product  $j$ , it indicates the comparative advantage of the country and a high level of specialization on the product  $j$ . If the calculated index has negative value, then it shows the reverse characteristics

like comparative disadvantage and low degree of specialization of the particular product. "N" is the number of items analyzed. If we break the Lafay index into three categories, namely LFI1, LFI2, and LFI3, following representations are as follow:

$$LFI_1 = \frac{X_j^i - M_j^i}{X_j^i + M_j^i} \quad LFI_2 = \frac{\sum_{j=1}^N (X_j^i - M_j^i)}{\sum_{j=1}^N (X_j^i + M_j^i)} \quad LFI_3 = \frac{X_j^i + M_j^i}{\sum_{j=1}^N (X_j^i + M_j^i)}$$

It cleared that LFI = (LFI1 - LFI2) LFI3. LFI1 measures the net export for the particular commodity by the total turnover of that commodity; this is known as the Balassa index. LFI2 measure the total net export through the sum for all products to the total turnover. The parenthesis consists of two elements of the index, namely LFI1 and LFI2. If the value of LFI1 is higher than LFI2, then RCA index of the particular commodity is higher than the RCA calculated for all the commodities. The third element, namely LFI3, adjust the value of both the aspects under parenthesis. It denotes the share of a given commodity in the total turnover of the trade. The LFI index indicates the intensity of comparative advantage for the traded

aggregation or a group of collection. A positive value of index shows the high comparative advantage, and degree of specialization and negative value signals that comparative advantage is lacking alongside degree id despecialization (Zaghini, 2005). By definition, Lafay Indices sustain symmetricity among all products of the country and the sum must be zero of for all sectors of a given country. The Lafay index calculates specialization for a product j in the country i also relates the contribution of the product in the trade balance of the country alongside the country's entire trade balance and its share of trade. Even though RCA indices reflect relative measures, so calculated results must be noted carefully and with information about their restrictions. The results should be appropriately analyzed with an understanding of limitations. A study of revealed comparative advantage of the industry helps explain the change in export specialization and structural transformation.

## 10. Data Analysis

The analysis of India's RCA is done through Balassa and Lafay indices. This section focuses on indices calculated for individual HS commodity of handloom industry.

## 11. India's Comparative Advantage:

The subsections analyse the RCA in exports and imports. There is a detailed calculation of the RCA measures over a period of time (2008-17).

### 11.1 India's Revealed Comparative Advantage in Exports (Balassa Index):

HS Code	Product Description	RCA Index									
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
50	Silk	9.01	6.80	7.02	4.63	3.30	2.94	2.90	2.89	2.54	2.19
51	Wool	0.79	0.75	0.76	0.79	0.81	0.63	0.73	0.85	0.77	0.72
52	Cotton	7.54	5.24	8.09	6.61	8.05	8.79	8.23	8.24	7.25	7.19
57	Carpets and other textile floor coverings	7.14	5.47	6.49	4.94	5.59	5.92	6.36	7.02	7.04	6.52
58	Special woven fabrics; tufted textile fabrics	1.46	1.26	1.41	1.13	1.29	1.66	1.77	1.80	1.83	1.82
62	Articles of apparel and clothing accessories	2.84	2.72	2.45	2.40	2.45	2.35	2.31	2.65	2.56	2.35
63	Other made-up textile articles; sets; worn clothing; rags	4.72	3.80	4.11	4.11	4.45	4.23	4.13	4.69	4.61	4.63

Table 4: Source: Researcher's calculation based on ITC trade map and UN COMTRADE

As indicated in Table 1, Revealed Comparative analysis calculated for ten years and all the commodities of handloom. RCA of India derived with the help of Export of India to the world during the period 2008-2017. If  $RCA > 1$ . It means commodity is more competitive in the world market as compared with the rest of the commodities. The commodities which are enjoying higher RCA are more

competitive as compared with the rest of the commodities. RCA of silk is decreasing over the year from 9.01 in 2008 to 2.19 in 2017. It shows significant distress in exporting of silk. Wool has the least RCA over the years that shows the less comparative advantage as compared to other exported commodities.

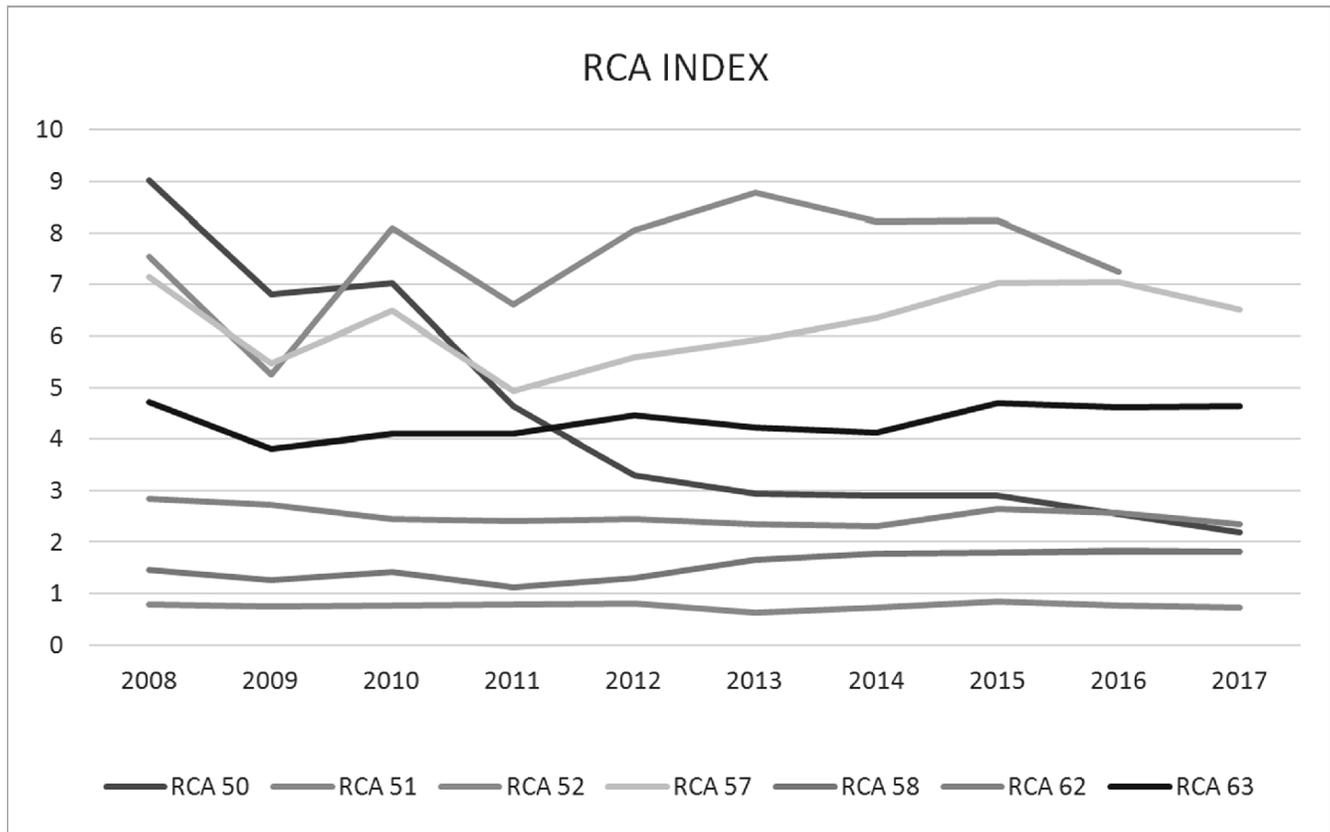


Figure 3: Researcher’s calculation based on ITC trade map and UN COMTRADE

The commodities which are enjoying higher RCA are more competitive as compared rest of other products. Handloom commodities like Silk, Cotton, Carpet and other textile floor coverings, other made-up textile articles set are more competitive in the international market from 2008 to 2017

as compare to other commodities like wool, unique woven fabrics, and articles of apparel and clothing. Hence India can increase the trade in particular commodities of Handloom.

**11.2 India's Revealed Comparative Advantage in Imports (Balassa Index):**

HS Code	Product Description	RCA Index									
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
50	Silk	6.28	8.11	6.55	5.03	4.85	3.96	3.84	4.47	5.35	5.83
51	Wool	1.22	1.06	1.27	1.10	1.10	1.12	1.23	1.23	1.24	1.10
52	Cotton	0.72	0.49	0.37	0.27	0.47	0.49	0.55	0.51	1.07	0.95
57	Carpets and other textile floor coverings	0.21	0.20	0.23	0.24	0.20	0.21	0.23	0.29	0.30	0.29
58	Special woven fabrics; tufted textile fabrics	0.50	0.59	0.49	0.49	0.54	0.62	0.66	0.83	0.78	0.74
62	Articles of apparel and clothing accessories	0.02	0.02	0.03	0.03	0.04	0.05	0.06	0.07	0.08	0.08
63	Other made-up textile articles; sets; worn clothing; rags	0.22	0.28	0.26	0.26	0.29	0.30	0.33	0.43	0.38	0.30

Table 5: Source: Researcher's calculation based on ITC trade map and UN COMTRADE

As indicated in table 2, India's revealed comparative analysis is calculated with the help of Import figures of all commodities of handloom industry with the rest of the world RCA to find out the competitiveness in the world market. RCA of silk shows significant comparative advantage from the year 2008-17. It has the highest RCA as compared to other commodities.

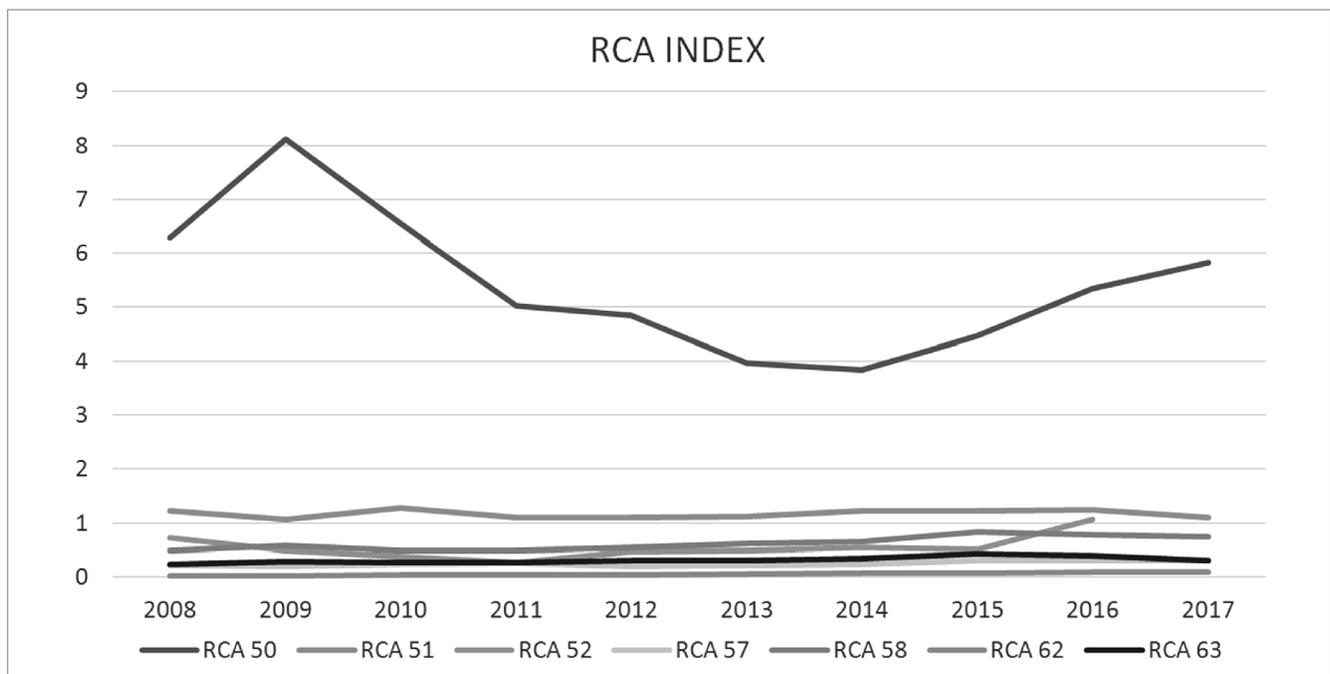


Figure 2: Researcher's calculation based on ITC trade map and UN COMTRADE

Handloom commodities like Silk and wool are more competitive in the perspective of import from the international market from 2008 to 2017 as compare to other

commodities like Cotton, Carpet and other textile floor coverings, other made-up textile articles set, special woven fabrics and articles of apparel and clothing.

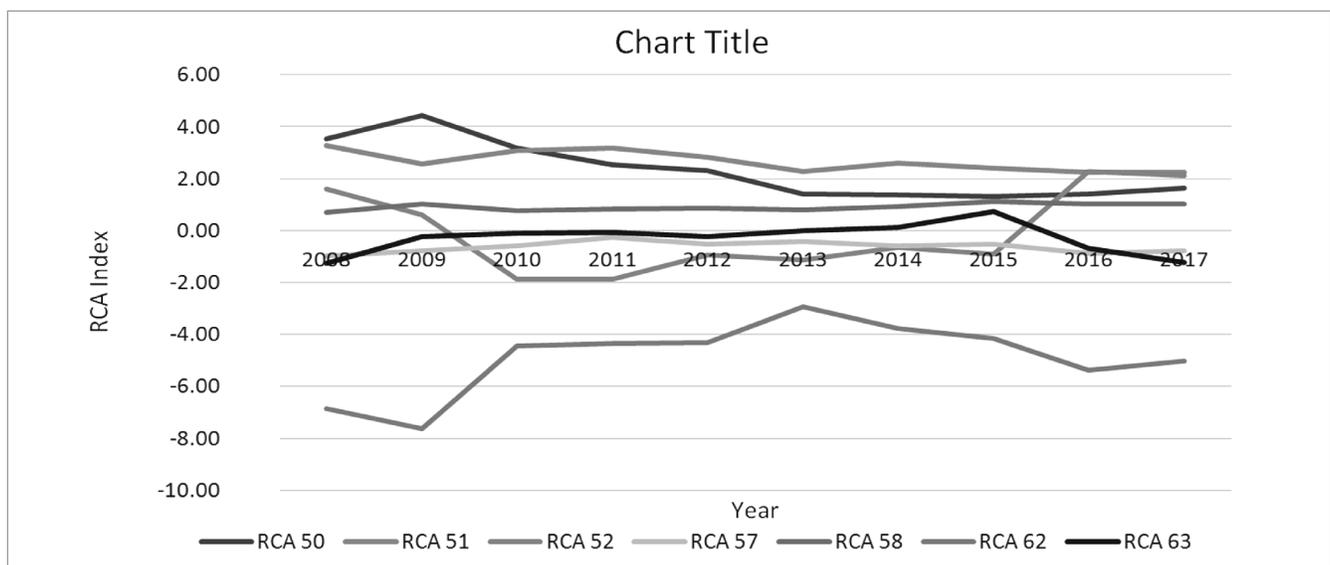
**11.3 Trade Balance (Lafay Index)**

HS Code	Product Description	Lafay Index									
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
50	Silk	3.53	4.45	3.17	2.53	2.31	1.39	1.37	1.32	1.42	1.65
51	Wool	3.27	2.55	3.07	3.19	2.84	2.29	2.61	2.40	2.24	2.24
52	Cotton	1.59	0.60	-1.88	-1.89	-0.93	-1.12	-0.64	-0.89	2.27	2.11
57	Carpets and other textile floor coverings	-0.99	-0.77	-0.57	-0.26	-0.52	-0.42	-0.60	-0.53	-0.87	-0.77
58	Special woven fabrics; tufted textile fabrics	0.72	1.02	0.77	0.84	0.86	0.79	0.92	1.13	1.01	1.04
62	Articles of apparel and clothing accessories	-6.87	-7.61	-4.45	-4.35	-4.33	-2.92	-3.76	-4.17	-5.39	-5.03
63	Other made-up textile articles; sets; worn clothing; rags	-1.25	-0.24	-0.11	-0.07	-0.23	-0.01	0.11	0.73	-0.69	-1.24

Table 6: Source: Researcher’s calculation based on ITC trade map and UN COMTRADE

The LFI index analysis the trade situation of a particular product within the structure of foreign trade boundaries for every country or group of countries (Zaghini, 2003). Analyzing the obtained results, and inferred that silk, wool, cotton, and special woven fabrics have a comparative

advantage and country has a high level of specialization on these products and other products shows negative index values that shows relative disadvantage and low degree of specialization in the products.



## 12. Discussion

The empirical findings suggested that silk has a comparative advantage in export, but it is continuously declining over the last ten years (2008-17). Cotton shows excellent comparative advantage followed by carpet and other floor coverings. Other handloom products like special woven fabrics, articles of apparel and clothing accessories have a significant comparative advantage in export. However, India also imports some raw materials for handloom products. The comparative advantage in import perspective is substantial for silk and wool. Rest products show distress in this index. Lafay index calculated for identifying the degree of specialization of particular products along with its comparative advantages. The computed value shows that silk and wool have high index positive value, which means that the country has a high degree of specialization in producing silk and wool alongside significant comparative advantage to other handloom products. Lafay index of cotton shows mix approach over the years whereas indices of special woven fabrics and tufted textile fabrics show little contribution in export alongside the degree of specialization of the products. Carpet and other textile floor covering have a less significant degree of specialization in these segments and having index nearer to zero. Articles of apparel and other made-up textile segment show negative indices value, which indicates the negative comparative advantage and a high degree of dis-specialization of these products.

## 13. Implication

The purpose of this article is to present empirical findings of the relative importance of handloom products traded across the country. Competitive advantages or disadvantage change over time for any industry. So that, analysis of the pattern needs to be studied over a specified period. Balassa revealed comparative advantage (RCA), and Lafay index (LFI) are the specific indicators that measure the strength of commodities for international trade. They assess that which commodities have a comparative advantage and which one has a level of specialization in the export and could take suitable steps accordingly.

## Conclusion

Hence, it inferred that some commodities of handloom industry have a significant comparative advantage and have excellent export performance, and some commodities need to revive the conditions. Policymakers should categorize the commodities according to the popularity in the export market and maintain the strategies according to the need of the commodities because universal rules and regulation can't be implemented for different performing commodities in the foreign market. Less demanded commodities need more strong supports in terms of product innovation, effective marketing strategies, and identification of potential market. Those commodities which highly competitive advantage also need to be analyzed time to time for maintenance of the position in the market.

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# *Disruptions in Indian Telecom Sector: A Qualitative Study on Reliance Jio*

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## Abstract

**Purpose:** The purpose of this paper is to analyze the impact of RJio (Reliance Jio) on Indian Telecom Industry and to examine the factors influencing customer churn from other telecom operators towards Reliance Jio.

**Design:** Theoretical study of previous research papers, Newspapers and online reports were used for first objective. The second objective was explored through qualitative research analysis using semi structured interviews to systematically collect and analyze the data in order to generate a model for Factors analyzing customer churn towards Reliance Jio. For this, 87 customers were randomly selected who were Reliance Jio users. Further grounded theory approach has been used to code the verbatim (indicates recording of interviews in the exact same manner as responded by the interviewee) and further propose a model.

**Findings:** Impact of Reliance Jio on Indian telecom industry were analyzed through theoretical study and factors influencing customer churn were analyzed. Seven factors arose through axial coding which are tariff, speed of internet data, brand endorsement, value added services, image of service provider, brand image and innovative company.

**Originality/Value:** Reliance Jio is a relatively new operator in the market which has taken the market by surprise and has brought a revolution in the Indian markets. Not a lot of work has been done on this, and this study provides new insights and literature.

**Keywords:** Reliance Jio, Churn, Qualitative study, Indian telecom Industry. Paper type: Research paper

## Introduction

The Inclination of the Customer to leave the services of one service provider in lieu of services offered by other is termed as churn (Phadke et.al. 2013) and that is what has happened in recent past after the introduction of Reliance Jio in Indian telecom Industry. Reliance Jio Infocomm (RJio), a part of Reliance Industries Limited (RIL) started its operation on 1st September 2016, and launched its services through internet using 4G (Fourth-Generation) technology to transfer voice and data services. RJio, in a statement, said that they hope to get 100 million subscribers in the shortest period of time (Khanna and Pathak, 2016), which has as per the company's expectations. As per the recent report published by the Telecom Regulatory Authority of India (TRAI) the subscriber base of telecom companies in India in

October, 2017 for Bharti Airtel stood at 285 million followed by Vodafone at 208 million, Idea Cellular at 191 million, and Reliance Jio at 145.9 million making Reliance Jio the fourth largest telecom operator in India within a span of one year. At present, in India, Reliance Jio is the only telecom operator that offers fully data centric services, entirely based on voice over long-term evolution (VoLTE) technology, which enables voice to carry over an internet protocol (IP) network at a higher speed than earlier 2G and 3G traditional networks. Anupam Srivastava stated that Reliance Jio's existence has posed a challenge of survival to other telecom operators in India by sharply reducing the tariffs (Bhatia and Palepu, 2016).

India is the world's third largest market of Internet Users and is also ranked second in terms of the number of mobile

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phone users and telecommunications market (IBEF, 2018). In the past ten years, the Indian telecom industry has changed drastically, where it was only at 14.6% tele density in mobile segments in Financial year 2007 but has reached 90.7% in the financial year 2017 (IBEF, 2018). In the year 2017, the telecom sector witnessed immense job losses of 40,000. This trend is expected to increase with job loss reaching 80,000-90,000 in the year 2018 (Online, 2019). This is because the Indian telecom industry is facing financial difficulty because of lower profit margins and increased competition (CIEL HR, 2018).

The purpose of this paper is: 1. to analyze the impact of RJio (Reliance Jio) on Indian Telecom Industry, 2. to examine the factors influencing customer churn from other telecom operators towards Reliance Jio, 3. To study the impact of Reliance Jio on Indian telecom industry. An empirical study was done and data was collected through various reports, research publications, and other internet sources to achieve the 3rd objective. To explore the 2nd objective, in-depth interviews of Customers who were using Reliance Jio services were done and a conceptual model was generated using grounded theory approach. Grounded Theory Approach is a qualitative methodology which gives systematic guidelines on collecting and analyzing the data. The theory was originated by Glaser and Strauss (1967), proposing that researcher should engage in simultaneous collection and analysis of data. The process of Grounded theory starts with "concrete data and ends with rendering them in an explanatory theory" (Charmaz and Belgrave, 2007). The Qualitative Interviews of the respondents were examined using Grounded theory approach to identify factors influencing Customer Churn in Telecom Industry.

## Literature Review

### **Reliance Jio Infocomm Private Limited (RJio)**

Reliance Jio Infocomm, is a part of Reliance Industries Limited. Reliance Industries Limited which is headed by Mukesh Ambani is India's second largest company as per Fortune 500 list of Indian companies with total revenue of Rs. 4102.95 billion (Fortuneindia.com, 2019). Reliance Jio Infocomm launched operations on 1st September 2016 to provide voice and data services using 4G technology to customers. Reliance Jio is said to be the biggest startup in

the world with a total investment of Rs. 1,50,000 Crores (Khanna and Pathak 2016). Reliance Jio initially had Prime Minister Narendra Modi endorsing its services which were termed as "revolutionary". After shaking the telecom industry with the initial free voice calling and data services, Reliance Industries Chairman and managing director Mukesh Ambani announced, at the 40th annual general meeting of Reliance Industries, that its subsidiary Reliance Jio will be launching 4G Volte Phones and these phones will cost Rs. 1500, refundable after 36 months on return of the phone at any Jio store. This offer sounded a death knell to the existing 2G and 3G phones available in the market at that time (Financial Express e-newsletter, July 2017).

### **Indian Telecom Industry**

India is the second largest customer base in terms of telecommunication market and is also the third largest in terms of number of Internet using customers across the globe. Indian telecom sector has a great potential of serving people and improving services day by day. This sector is facing hard times as it has seen loss of around 40,000 Jobs in 2017 and this trend is likely to continue in 2018 with Job losses to reach around 80,000-90,000 (CIEL HR, 2018). Telecom minister Manoj Sinha, as per a report (Kudikala, 2018), has said that the telecom sector is likely to create around four lakh new jobs over the next five years and will significantly contribute towards Indian GDP. He further added that Union Budget for 2018-19 would also enhance the telecom sector as the government has allocated Rs. 10,000 crores towards telecom infrastructure in the country. TRAI (Telecom regulatory authority of India) was established on 20th February 1997 through an act of parliament to regulate and monitor telecom services in India which include fixation and revision of tariffs in telecom sector of India which were earlier authorized to be done by Central government of India and its main objective is to provide a fair and transparent policy environment which promotes a level playing area and ensures fair competition among various telecom operators (Trai.gov.in, 2018). Indian telecom sector at present is one among the fastest growing telecom sectors of the world and as per the industry estimates out of the total India's GDP telecom sector's contribution was at 6.5% and also providing employment to four million people in 2015 (TRAI, 2018). In early 1990's Indian government

announced market liberalization. In effect the post-liberalization Indian telecom sector has been shaped through four policies (i). National telecom policy, 1994, (ii). New telecom policy, 1999, (iii). Broadband policy, 2004 and (iv). National telecom policy, 2012.

**Research Methodology**

There has been very little studied about the impact of Reliance Jio on Indian Telecom Industry and the manner in which customers are leaving other telecom operators and moving towards Reliance Jio. This paper provides insights on both these questions,. This study is purely qualitative in nature and uses grounded theory to analyze the second objective. This is to analyze the factors responsible for customer churn towards Reliance Jio from other telecom operators. The first objective has been analyzed through a thorough analysis of Newspapers, Research papers and Internet sources. For the second objective, 87 customers from J&K, Punjab, Himachal Pradesh, Madhya Pradesh and Delhi were analyzed and in-depth interviews were done in order to obtain data and a grounded theory approach was used through systematic analysis and collection of data (Strauss and Corbin, 1998). The interviews were conducted by the authors. In this study 87 customers who were Reliance Jio users were interviewed till the attainment of data saturation. Data saturation is a point where no new information is generated and repetition of data starts occurring (Strauss and Corbin, 1990). Each interview was then converted into a verbatim, which means it was recorded in the same manner as interviewee responded. The interview started by asking their willingness to participate and were done one at a time when they were ready to answer. The interviewees were told about the objectives of the study and were informed that why this interview is happening.

**Analysis of Data**

The interviews were converted into a verbatim and then the transcripts were studied by three individual investigators and they performed open coding of the transcripts which generated general statements showing general behavior of customers towards telecom industry and their preferences after that a round of axial coding was done and these statement were narrowed down and similar statements made one factor and like this total seven

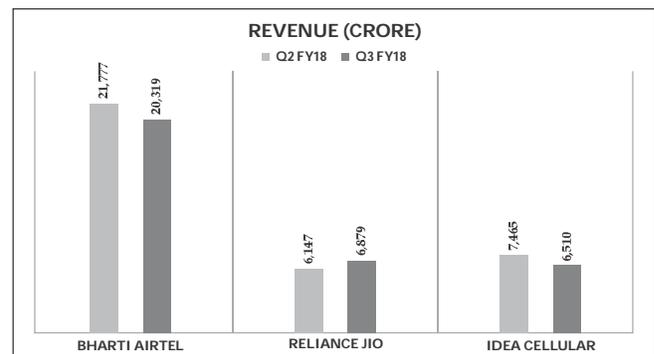
factors were generated which shows customer churn behavior and why customer switch from other telecom operators towards Reliance Jio.

The emerged conceptual model is given in Figure 3 and all the factors have been summarized below.

**Discussion of the Study**

**Effect of Reliance Jio on Indian Telecom Industry**

Reliance Jio started its operations on 1st September 2016 with Mukesh Ambani, CEO and Managing director of Reliance Industries officially announcing launch of Reliance Jio and quoting that “No Jio Customer will ever have to pay for voice calls again” The effect of Reliance Jio on Indian telecom sector started showing from that day only as Bharti Airtel which is Number 1 telecom operator in India lost its share price by 6.4% on Bombay stock exchange, not only Bharti Airtel, other telecom operators like third ranked Idea cellular and Reliance communications also saw Share prices falling on Bombay stock exchange by 10.5% and 8.8% respectively (The Economic Times, 2016).



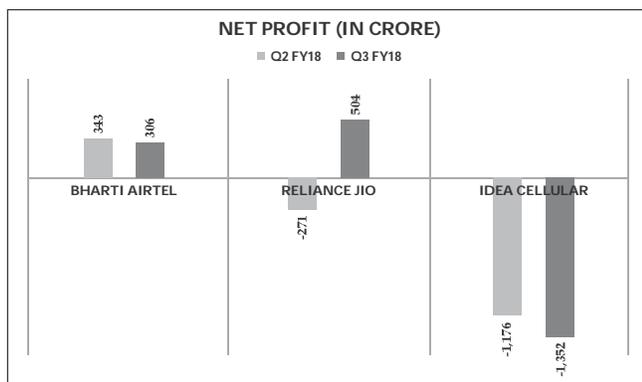
Source: Financial Express Bureaus, January 24, 2018

Figure 1. Figure Showing revenues of different telecom operators for Quarter 2 and Quarter 3 of Financial Year 2018.

The October-December quarter came up with some major changes as Bharti Airtel the Number 1 player in telecom industry in India witnessed decline in its revenues from Rs 21,777 Crores to Rs 20,319 Crores and the reason behind decline of revenues by Rs 1,062 crores was because of reduction in termination rates and further, the cut in international mobile termination which is effective from 1st February, 2018, from 53 Paisa to 30 Paisa will once again

affect the revenues of all telecom operators, but Jio's Revenues will not be much affected as its international call rates are already lower than Bharti's Airtel, Idea and Vodafone. So Reliance Jio's revenues will not be much affected but others might see further fall in their revenues (Financial Express, 2018)

Another change which came up in October-December, 2018 quarter is that Reliance Jio posted higher revenues of Rs 6,879 crores than Rs 6,510 of Idea cellular making Reliance Jio the second largest telecom operator in terms of Revenues.



Source: Financial Express Bureaus, January 24, 2018

Figure 2. Figure Showing Net Profits of different telecom operators for Quarter 2 and Quarter 3 for financial year 2018.

Idea Cellular in Quarter 3(October-December) showed a wider net loss from Rs 1,176 crores in Quarter 2 it reported a loss of Rs 1,352 crores in Quarter 3 of financial year 2018 whereas Reliance Jio which showed a loss of Rs 271 crores in Quarter 2 became profitable in Quarter 3 and showed huge growth and net profit of Rs 504 crores which is even more than Number 1 telecom operator Bharti Airtel whose net profit fell from Rs 343 crores in Quarter 2 to Rs 306 crores in Quarter 3.

Another effect that Reliance Jio has made on telecom industry is the merger of Idea cellular with Vodafone. The two companies are in process to merge as India's most complex mergers of all time and this merger will create world's second largest and India's largest telecom operator surpassing Bharti Airtel Ltd. The two companies have got

approval from Competition commission of India (CCI) and Securities and Exchange board of India (SEBI) in July, 2017 and have also taken approval from National Company Law Tribunal (NCLT) on 12th January 2018, now the two companies only require approval from Department of Technology (DOT) and the companies may start operating as one entity from April, 2018 (Livemint, 2018).

Reliance Jio has affected employment in India as there have been over 75,000 job losses in telecom sector so far. According to A Ramachandran, Partner at search firm Ema Partners quoted that "About a year ago, there were three lakh employees, 25% of which have moved out of the sector in the last 12 months," The remaining 2.25 lakh employee will also face hard times after the Vodafone-Idea merger takes place as overlapping areas will also see slashing of Jobs and it will become difficult for those who have got niche skills (The Economic Times, 2017).

Reliance communications has decided to shut most of its wireless operations and the employees of Reliance communications have been put on notice period and Reliance communication has blamed Reliance Jio quoting that it has brought "creative destruction" by offering free voice and data services and not only this Aircel is also believed to wind up its business and concentrate only on some niche circles and also Reliance communication and Aircel scrapped their merger in September, 2017 (Economic Times, Nov 15, 2017).

**Factors Influencing Customer Churn from other telecom operators towards Reliance Jio**

Customer switching behaviour is common in every industry but it varies from industry to industry and in service industry there is negative association among profitability and customer churn. So, in service industry it is very important for telecom operators to retain their customers so as to maintain their profitability and become market leader (Keaveney, 1995). Churn rate in India is between 3.5%-6% which is highest in Asia-Pacific region and due to these Indian telecom operators are losing more than \$94.03 Cr every year (Gartner, 2012). We investigated some factors that has led to further increase in Churn in telecom industry in India.

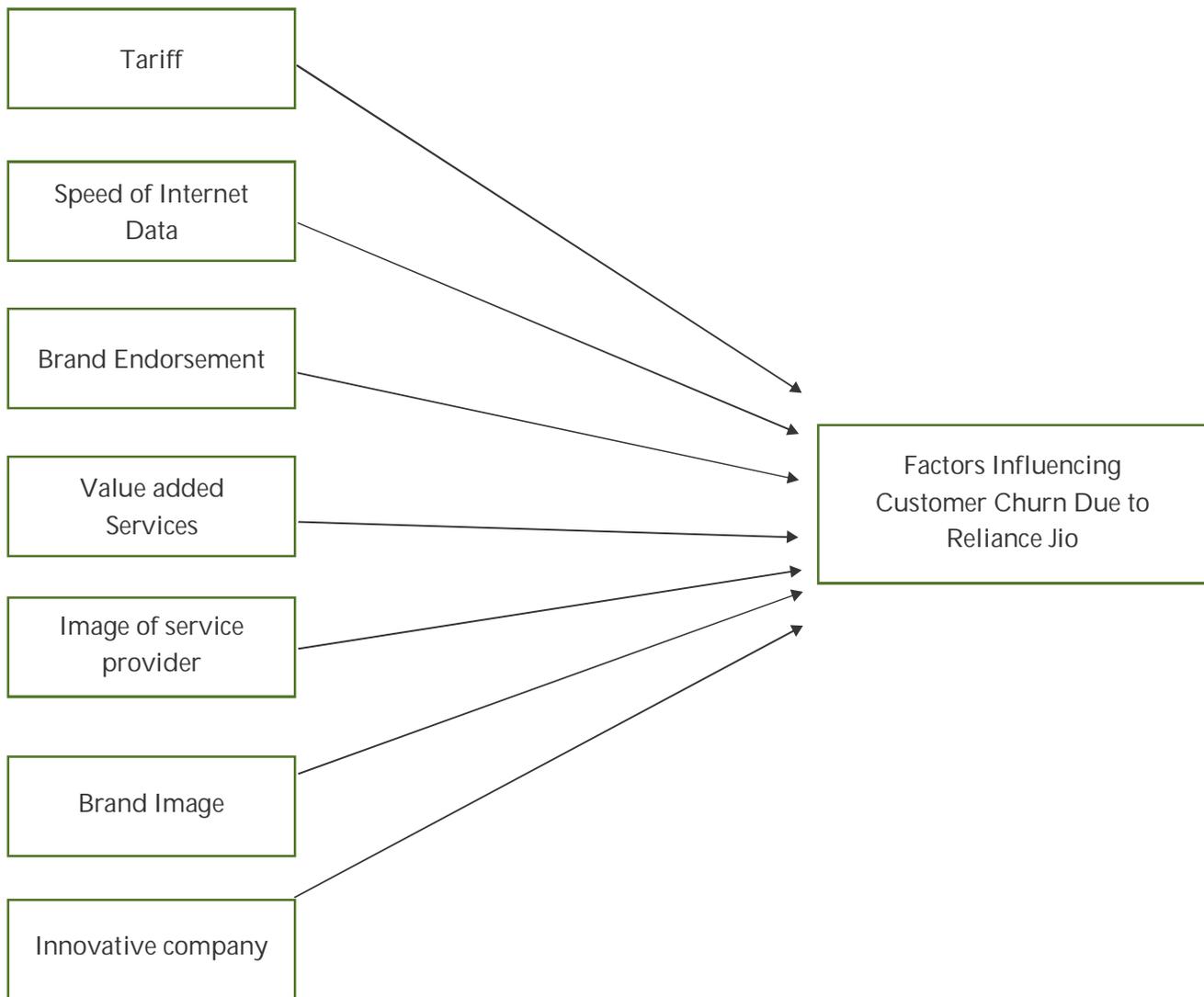


Figure 3. Figure Showing Customer Churn from other telecom operators towards Reliance Jio.

**Tariff/Fixed Price**

Indian customer are very price sensitive (Mahajan et.al, 2017). Price is a key factor in developing and emerging markets like telecom sector market in India (Srivastava et.al. 2006). Reliance Jio has brought a revolution in Indian telecom market by introducing free 4G data and voice calling leading to gain huge Indian market and reaching 100million subscribers within one year of incorporation.

*Customer: "Reliance Jio offer services at twenty percent of the tariff which I was paying earlier and my monthly bill on mobile has declined leading to more savings".*

*"After getting subscribed to Reliance Jio my monthly spending on mobile has come down from Rs.400 to Rs.100 which is a good change"*

*"Reliance Jio's 4G data packs are even cheaper than 2G and 3G data packs offered by other operators"*

Customer while interviewing were very biased towards price and they were of the feel that Reliance Jio is offering the cheapest services in India and has slashed the voice calling and data tariff to such extent that their competitors are getting stiff competition and due to this factor they have shifted from other operators towards Reliance Jio.

### **Speed of Internet data:**

The demand for Internet is continuously growing at a dramatic rate and the access speed to internet has become very important factor for the users (Kridel et.al, 2002). High speed internet is the demand of every customer but they also need to pay higher price to obtain high-speed internet data (Rappoport et.al, 2003).

*Customer: "Reliance Jio provide high speed internet data as compared to other operators that was the main reason for me to shift towards Reliance Jio"*

*"Reliance Jio is effective as 4G high speed data is provided at cheaper rate than other telecom operators"*

*"I shifted towards Reliance Jio because there was a lot of waiting time for a page to load on internet while using Internet of Idea and Aircel but Reliance Jio's Internet is quick and reliable"*

Reliance Jio brought a change by providing high speed internet data at cheaper and affordable rates which was not a trend, earlier telecom operators use to charge more prices in order to have access to high speed data. Reliance Jio with a vision that they should be their clients "first call" are working very dedicatedly towards that. Customers said that they used to pay high for 2G and 3G internet services but Reliance Jio has made them 4G services available at lower rate than 2G services which is revolutionary in India.

### **Brand Endorsement**

Endorser and its message increase liking of customer towards a product and will lead to positive cognitive relations towards that brand (Mowen, 1980).

*Customer: "PM Modi was endorsing Reliance Jio's ad initially and I see him as my idol so I shifted towards Reliance Jio"*

*"Seeing PM Modi Ji in Advertisement of Reliance Jio made me feel that it is his initiative towards a better India and to provide cheap services to Indian citizens which made me shift towards Reliance Jio"*

Reliance initially used PM Modi in its advertisements which influenced customers as he is a public figure and Prime minister of India which took Reliance Jio to gain word of mouth publicity and achieve more subscribers.

### **Value added Services**

Value-added services are common in telecom industry and these services are provided at excessive cost which affects

the customer's adoption of these services (Schultz, 2001).

*Customer: "Reliance Jio is offering various Value-added services like caller tunes, access to all Jio Applications like Jio TV, Jio Music, Jio News and many other services and that too without charging any extra cost"*

*"Reliance Jio don't have any hidden charges and no-extra money is deducted for use of any value-added service unlike other telecom operators"*

*"I can have access to many complementary services which is a great additional feature offered by Reliance Jio"*

*"Cashback is provided to me whenever I recharge my Jio sim from Jio app which is making Jio services cheaper to me"*

Customers in their interview were very favorable towards value-added services offered by Reliance Jio and they were of the view that other telecom operator use to charge extra money on use of any extra service and even use to deduct money if any service is selected by them mistakenly which is not there in the case of Reliance Jio as they are offering these services free of cost.

### **Image of service provider**

Image of service provider is a very important factor which lead to customer satisfaction and there exists a positive relationship between image of service provider and customer satisfaction (Sandhu et.al, 2013).

*Customer: "Reliance Jio is a subsidiary of Reliance Industries limited led by Mukesh Ambani whose name is trustworthy in India being the owner of Number one Company Reliance Industries limited in India"*

*"Mukesh Ambani is one who always thinks of development and works for society which makes me have trust on the service which he is offering"*

Mukesh Ambani runs India's largest CSR (Corporate Social Responsibility) network and Reliance industries contributed Rs. 652 Crores towards CSR activities in 2016 (India CSR, 2016). These activities has created a public image of Reliance Industries which is helping them to attract customer easier than compared to its competitors.

### **Brand Image**

Positive brand image of a company is an indicator and also results in customer satisfaction (Malik et.al, 2012).

*Customer: "Over the years Reliance Jio has emerged as a brand*

*name which is familiar to every individual for the type of services they are offering which made me to use Reliance Jio and have its services"*

*"My friend advised me to use Reliance Jio as he was using it and described me the benefits of it"*

*"I bought a new 4G phone only to have access to the services offered by Reliance Jio"*

Another major factors influencing customer to use Reliance Jio was its Brand Image which it has built within a span of one and a half year and customers have started doing word of mouth publicity for Reliance Jio and it has got such a great brand image that people have started buying 4G phones who were not having a 4G phone only to have access to Reliance Jio's Services.

### **Innovative Company**

Innovativeness is one of the factor that constitute service providers factors (Paulrajan and Rajkumar, 2011).

*Customer: "Reliance Jio is very innovative in its operations as they are providing very unique services like access to all television channels through Jio Tv app and that too free of cost"*

*"Reliance Jio has come up with very innovative schemes like offering cashback on recharges, Dhan Dhana Dhan plans offering unlimited voice calling and data packs at cheaper prices, subsidized monthly charges and free value-added services"*

Reliance Jio has come up as an innovative company bringing a revolution in telecom sector and forcing other telecom operators to slash their prices so that they can survive in market. Jio has come up with the idea of offering additional value-added services at free of cost which were used to be heavily charged by other telecom operators.

### **Conclusion**

Reliance Jio has shown its impact from very first day of its incorporation as Bharti Airtel which is Number 1 telecom operator in India lost its share price by 6.4% on Bombay stock exchange, not only Bharti Airtel, other telecom operators like third ranked Idea cellular and Reliance communications also saw Share prices falling on Bombay stock exchange by 10.5% and 8.8% respectively. The impact of Reliance Jio on telecom industry is so severe that it may be termed as a revolution in Telecom Industry in India. Reliance Jio within a span of one and a half year has become the second largest telecom operator in India as it posted

higher revenues than Idea cellular in Quarter 3 of Financial year 2017-18 and in terms of Net-profit it has shown even higher Net-profit than Number one telecom operator Bharti-Airtel in quarter 3 of financial year 2017-18. Reliance Jio has severely affected employment in India as there have been 75,000 job losses so far since the inception of Reliance Jio in telecom industry and even more of Job losses are expected in 2018 and this is all because of the stiff competition that Reliance Jio has brought in telecom industry leading to scrapping off major players like Reliance communications and Aircel from most parts of the country and even it has forced two major telecom operators Idea cellular and Vodafone to merge as these operators are having losses due to Reliance Jio.

The factors were analyzed which are leading the customers to shift from other telecom operators towards Reliance Jio and through interviews it was analyzed that there are seven major factors influencing the customers. The first and major factor which was influencing the customer was the tariff, Reliance Jio is providing the customers with the cheapest ever services or even free of cost services which has influenced the customers to a greater extent, the other factors to be analyzed were speed of Internet data, brand endorsement, value-added services, image of service provider, image of brand and innovative company. Reliance Jio brought a change by providing high speed internet data at cheaper and affordable rates which was not a trend, earlier telecom operators use to charge more prices in order to have access to high speed data and initially they used PM Narendra Modi in their promotions which was a major influential factor to customers. Earlier telecom operator use to charge extra money on use of any extra service and even use to deduct money if any service is selected by them mistakenly which is not there in the case of Reliance Jio as they are offering these services free of cost which has also influenced the customer to move towards the services of Reliance Jio and also the customers were familiar with the Reliance Jio and also Mukesh Ambani who is a famous name in India with the largest Industry in India was also the influential factor behind customer churn towards Reliance Jio and the innovation of providing free services also made a positive impact on the customers.

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# *Herd Behaviour Mania in Financial Markets: Literature Review*

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## **Abstract**

Transmitting accurate and true information to stakeholders is imperative for market efficiency thereby reducing speculation in asset prices. The present paper conducts a systematic review of the extant literature in the area of herd behaviour in financial markets. We identify the research gaps that provide opportunities for future research. The scope of future studies may help in framing of new research questions and their further analysis. Herding in financial markets can be detrimental to the overall market system making it vulnerable. The existing studies on herd phenomenon have provided mixed and inconclusive results. The current review examines herding with respect to the types of market participants, metrics used, direction of market movement and the nature of the economy. It is imperative to perform a systematic review in this field as the behavioural biases have implications for market participants, regulators and academicians.

**Keywords:** Market Efficiency, Asset Prices, Herd Behaviour, Financial Markets, Systematic Review

**JEL Classification:** G140, G1, G120, G410

## **1. Introduction**

Statman (1999) argues, people are 'normal' rather than 'rational'. Humans in general are driven by behavioural biases and these affect their decision making capacity. Men in general have an innate capacity to be influenced by others while making decisions, including investing activities. In their seminal work, Bhikchandani & Sharma (2000) have pointed out three reasons for an investor to be influenced by others actions. First, there is an innate and natural preference to confirm with others. Secondly, the incentive schemes in the financial world are such that imitation is rewarded. Thirdly, the credence of investors that others in the market possess more knowledge about the investment may lead to imitation. The motivations that induce herd behaviour according to Leibenstein (1950) are "the desire of people to purchase a commodity in order to get into the swim of things; in order to conform with the people they wish to be associated with; in order to be fashionable or stylish; or, in order to appear to be one of the boys." According to Banerjee (1992), herd behaviour is when people follow the crowd ignoring their personal information that might be suggesting something else.

Bhikchandani, Hirshleifer and Welch (1992) put forward, that for investors, herding is the obvious intent to imitate other investors' behaviour. Raut & Das (2015) in their review find that the behavioural changes impact individual investor's decision making ability leading to irrational choices and thus inefficient markets. Devenow & Welch (1996) opine two polar views of herd phenomenon, namely rational and non-rational. They claim that rational herding is when incentive issues and informational difficulties shadow optimal decision making and managers herd so as to guard reputations (Scharfstein & Stein, 1990; Rajan, 1994). Non rational herding on the other hand is when the investors behave like lemmings and blindly mimic others ignoring their private information. Bhikchandani & Sharma (2000) classify herding into spurious and intentional, where the former is an efficient outcome whereas the latter results in information cascades and is a result of money managers following others for reputational reasons. Mangala & Sharma (2014) in their study, review various behavioural biases that impact the investment behaviour thereby not only influencing the current but also the future decisions.

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## 2. Objectives of the Review

The present review critically examines the theoretical and empirical literature available on herding in financial markets. In spite of numerous studies present, this particular review adds to the body of knowledge in two primary ways. First, the extant literature is consolidated and thematic areas are identified to review the studies with respect to the types of market participants, methodologies used, country of research and asymmetry in market movement. This categorization aids in understanding the past work on the behavioural bias with respect to the aggregate market activity as well as its various stakeholders. The second significant contribution that the present study makes is identification of existing gaps and limitations in literature along with the scope of future research. Firstly the methodologies used to measure herd behaviour are not free from assumptions that do not hold valid while working with real data. The limitations are discussed further in the paper. The studies conducted so far have been inconclusive when it comes to inferring the prevalence of herd phenomenon in financial markets. While some studies find significant evidence, others give a contrast opinion. In addition to this, little has been explored outside the gamut of equity markets. Debt and commodity markets provide lucrative ground for the study, but only a handful of studies have been conducted. Lastly, the existing studies focus on examining herd pattern in the markets individually. Investor behavioural spillover patterns have not been explored much.

In view of the above objectives, rest of the paper is organized as follows: Section 1 and 2 are introduction and objectives of the review respectively. Section 3 evaluates the studies on herd pattern among market participants and the possible intentions for herding. Section 4 evaluates the measures used to study and conclude the herd behaviour in financial market and limitations of these metrics. Most of the available literature examines herd pattern in equity markets. In Section 5, we have reviewed the studies in other types of capital markets like bond, commodity, mutual funds for the evidence of herd behaviour. Section 6 examines the studies on herding in different emerging and developed markets that are varied in terms of development and depth. Section 7 reviews the herd phenomenon under asymmetric market conditions. Section 8 concludes the

paper and discusses gaps and limitations in the existing body of knowledge along with scope of future research.

## 3. Herding by Different types of Market

The first context in which the literature has been classified is at the micro level of types of market participants- investors, money managers, fund managers, security analysts and newsletters. The reputational and career concerns of managers give rise to principal-agent issues and may lead to herd behaviour. Kodres & Pritsker (1995) study herding among various groups of market participants and infer that broker-dealers dealing in foreign currency and S&P 500 Index futures herd. Herding is also concluded for foreign banks, pension funds and hedge funds. Analysts performing earnings forecast also display herd behaviour in the UK markets (De Bondt & Forbes, 1999). Welch (2000) is of the opinion that security analysts herd by way of trade recommendations that have positive impact on other analysts. According to Cote & Sanders (1997) the factors that positively affect herd behaviour are concerns for reputation and consensus forecast credibility whereas ability to forecast has an inverse relationship. This is further ascertained by Trueman (1994) who finds that analysts have an incentive to bias their recommendations based on prior market expectations in order to protect reputation (Scharfstein & Stein, 1990). Graham (1999) examines herding among newsletters and finds that they herd on Value Line and around each other in order to protect their reputation. Olsen (1996) cites that human desire for conformity is the reason behind herding among earnings forecasters. Cote & Goodstein (1999) look at the ethical nature of herding behaviour and question the practice when the analyst's reputation takes precedence over 'what is right?'. According to Kim & Pantzalis (2000) analysts concentrating on diversified companies display significantly higher herding and are also penalized. Revisions that are more recent and accurate predictors of ex post returns also lead to herding. On the contrary, a study by Bernhardt, Campello & Kutsoati (2006) observes that analysts "anti herd" and focus on private information to issue contrarian trade calls. According to Rajan (1994), rational bank managers with short term horizons while setting up credit policies are also influenced by other banks. The study cites the example of the banking crisis of

the Bank of England. Prendergast (1993) argues that compensation schemes of managers may lead to information cascades and herding and conclude that it may lead to inefficiencies and more centralized decision making. Zwiebel (1995) concludes herd behaviour exists among intermediate quality managers where success rate is measured relative to others. Ashiya & Doi (2001) reason "herding leads to reduced dispersion and an increase in the mean of the distribution of expert forecasts, creating positive bias and inaccuracy in published earnings estimates." As such decrease in dispersion is viewed as lesser risk and positive bias for high future returns. Chevalier & Ellison (1999) find lesser deviation from herd behaviour for young mutual fund managers compared to older managers primarily because of career concerns that provide incentives. Conditional upon performance, inexperienced employees suffer career setbacks when wrong and that can prove to be costly making them take less risks and herd (Hong, Kubik & Solomon, 2000).

Herd behaviour has been studied with respect to the residence status of the investor. Kim & Wei (2002) conclude that resident and non resident foreign investors herd and the behaviour is more pronounced in case of individual investors compared to institutional investors. A possible explanation for the same can be the quality and timeliness of information which is readily available to institutional investors viz a viz individuals. On the other hand studies by Choe, Kho & Stulz, (1999) and Iihara, Kato & Tokunaga (2001) find evidence of significant herd pattern among institutional investors. However, they point out that institutions follow information rather than 'trend chasing'.

#### 4. Measures and Methodologies of Herding

The extant literature to measure herd behaviour in the financial markets are put under two categories. The first method to examine herd phenomenon is at micro-participant level and the second is from the point of view of aggregate market activity using security prices and returns. For the former category, we have analyzed the most commonly used measure of Lakonishok, Shleifer & Vishny [LSV], (1992). As per the model, "herding is measured as the ratio of the number of net buyers of a particular stock relative to the total number of money managers in that stock at that time minus the adjustment factor. The adjustment factor decreases as the number of

managers that trade in that stock rises." Herding,  $H(i)$  is defined as:

$$H(i, t) = \left| \frac{B(i, t)}{(B(i, t) + S(i, t))} - p(t) \right| - AF(i, t) \quad (1)$$

Here,  $B(i, t)$  and  $S(i, t)$  is the number of money managers that buy and sell respectively stock  $i$  at time  $t$ .

$$AF(i, t) = E \left| \frac{B(i, t)}{(B(i, t) + S(i, t))} - p(t) \right| \quad (2)$$

Here, LSV (1992) defines  $p(t)$  as the expected value of the proportion of money managers buying in that quarter relative to the number active. LSV (1992) studies the investment behaviour of 341 money managers that manage 769 U.S tax exempt funds for the period 1985 to 1989 and find no significant herd behaviour. However, there is evidence of herding in small stocks but the authors justify it on account of less publically available information for them. This methodology is used by Wermers (1999) to study herding in mutual funds for the period 1975 to 1994. In spite of the popularity of the LSV (1992) measure, it suffers from the following limitations:

- 1) The LSV (1992) method examines the number of managers while ignoring the magnitude that can result in underreporting the existence of herd behaviour.
- 2) The measure does not capture whether it is the same stocks that herd over a period of time or not. As a result, the method cannot be used to identify herding in trades across time periods.

Sais (2004) studies the behaviour of institutional investors and finds the covariance of buyers of the stock in one quarter to the proportion in the previous quarter. This cross sectional correlation between the number of buyers in two simultaneous quarters helps in identification of the herd pattern. Thus, the position of each institutional investor in every asset  $k$  is found out at both, the start and end of each quarter. Buying (selling) leads to an increase (decrease) in the holding of asset. Afterwards, the portion of buyers is estimated for each stock quarter.  $B_{ik, t}$  and  $S_{ik, t}$  is the number of institutional buyers and sellers for stock  $k$  at

quarter t respectively. Thereafter a 'raw fraction of institutions buying' is defined as:

$$Raw\Delta k, t = \frac{BI_{k,t}}{BI_{k,t} + SI_{k,t}} \quad (3)$$

The equation is then standardized:

$$\Delta k, t = \frac{(Raw \Delta k, t - \overline{Raw \Delta k, t})}{\sigma(Raw \Delta k, t)} \quad (4)$$

The idea is

“if institutional investors follow each other into and out of the same securities (herd), or if individual institutional investors follow their own last quarter trades, then the fraction of institutions buying in the current quarter will be positively correlated with the fraction of institutions buying in the previous quarter” (Sias, 2004, p. 172).

The second category of methodology employs the individual stock returns viz a viz market returns to study the return dispersions to evaluate herd pattern. The return dispersion measures magnitude of closeness between stock return and the average market return. The pioneer in this measure is given by Christie & Huang (1995), called cross sectional standard deviation (CSSD):

$$CSSD_t = \sqrt{\frac{\sum_{i=1}^N (R_{i,t} - R_{m,t})^2}{N-1}} \quad (5)$$

Where,  $R_{i,t}$  and  $R_{m,t}$  are the return on security i and market portfolio at time t respectively and N is the number of firms in the portfolio. During times of market stress, as theorized by the rational asset pricing models, the dispersion should increase as each security has a different beta and behaves differently towards the market movements. However, if herd pattern exists, then investors suppress their own information that is private and pursue others trading decisions leading to decrease in the dispersion measure (Christie & Huang, 1995). Thus, herding exists when dispersion is zero. Hence the model empirically examines if the difference between individual security return and market return (measured by dispersion) is significantly lower than the mean during the times of market stress. Following is the equation:

$$CSSD_t = \alpha + \beta^L D_t^L + \beta^U D_t^U + \epsilon_t \quad (6)$$

Where,  $\beta^L$  and  $\beta^U$  are the coefficients of systematic risks for up and down market movements. D is the dummy variable capturing the differences in investor behaviour during extreme market movements.  $D_t = 1$  if the  $R_{m,t}$  is to the left of the extreme lower tail of the return distribution or right to the extreme upper tail of the distribution or  $D_t = 0$  otherwise. For herd behaviour to exist, the  $\beta$  should be statistically significant and negative. This model suffers from the following limitations. First the model is linear, whereas during herding, the linearity between CSSD and  $R_{m,t}$  does not hold true. The model is also affected by outliers and cannot be used to examine herd pattern during normal times. In view of the above limitations, Chang, Cheng & Khorana (2000) propose a cross sectional absolute deviation (CSAD) to study the dispersion. CSAD is a variant of CSSD and the relationship between CSAD and market return is used to study herd behavior. The rationale of CSAD measure is the same as CSSD explained above. However, it is better as it captures the non linearity during herding, making it more robust. This is done by addition of a non linear term of  $R_{m,t}^2$  in the model. CSADt is calculated as:

$$CSAD_t = \frac{1}{N} \sum_{i=1}^N |R_{i,t} - R_{m,t}| \quad (7)$$

The regression equation is:

$$CSAD_t = \beta_0 + \beta_1 |R_{m,t}| + \beta_2 (R_{m,t}^2) + \epsilon_t \quad (8)$$

In case herd behaviour exists, the regression coefficient  $\beta_2$  is significant and negative. Although theoretically sound, the model has a limitation. The independent variables may be susceptible to increased level of multicollinearity that may lead to less accurate results. To improve the power of the model, Yao, Ma & He (2013) study the Chinese A and B stock market by using the modified forms of Christie and Huang (1995) and Chang et al. (2000) model by adding an extra term of  $R_{m,t}$ . This decreases the multicollinearity between independent variables:

$$CSSD_t = \beta_0 + \beta_1 |R_{m,t}| + \beta_2 (R_{m,t} - R_m)^2 + \epsilon_t \quad (9)$$

$R_m$  is the arithmetic mean of  $R_{mt}$ . To reduce the high level of serial correlation, Yao et al. (2013), add an extra 1- day lag term to the above equation:

$$CSSD_t = \beta_0 + \beta_1 |R_{mt}| + \beta_2 (R_{mt} - R_m)^2 + \beta_3 CSSD_{t-1} + \epsilon_t \quad (10)$$

Yao et al. (2013) find herding in Shanghai and Shenzhen B-share market whereas A-share market makes more rational investment choices. To make the model more powerful and robust, Filip, Pochea & Pece (2015) use (11) and find significant herd behaviour in all Central and Eastern European countries except Poland.

$$CSAD_t = \beta_0 + \beta_1 |R_{mt}| + \beta_2 (R_{mt} - R_m)^2 + \beta_3 CSAD_{t-1} + \epsilon_t \quad (11)$$

The equation (11) has an advantage over (10) as it uses CSAD instead of CSSD as a measure of dispersion and hence all limitations of CSSD model are minimized.

Another metric to capture herd phenomenon is by using beta herding (Hwang & Salmon (HS), 2007). Beta herding reflects the convergence of betas of individual stocks towards the market index. The cross-sectional beta herding in individual assets is modelled in HS as follows:

$$\frac{E_t^b r_{it}}{E_t r_{mt}} = \beta_{imt}^b = \beta_{imt} - h_{mt} (\beta_{imt} - 1) \quad (12)$$

For a security  $i$  at time  $t$ ,  $\beta$  measures the systematic risk that has excess returns of  $r_{it}$ .  $r_{mt}$  measures the excess returns on market at time and  $E_t(\cdot)$  is the conditional expectation of return. During herding,  $E_t^b(r_{it})$  and  $\beta_{imt}^b$  are the biased conditional expectation of excess returns and systematic risks for the security.  $h_{mt}$  captures herding and the market is in equilibrium when  $h_{mt}=0$ . The study examines how asset prices and their expected returns i.e.  $E_t(r_{mt})$  evolve when the market is in disequilibrium. The model postulates that for perfect cross sectional beta herding ( $h_{mt} = 1$ ),  $\beta_{imt}^b=1$  and the expected excess return of individual stock is the same as market return. Contrary to the results of some studies, the authors find that beta herding is more apparent in the markets of the US, UK and South Korea when there is confidence among the investors. During periods of stress, fundamentals overrule the investment decisions.

The method of estimating the regression equations as proposed by various studies has been ordinary least

squares (OLS). However, an alternate estimator is quantile regression model (QREG) (Koenker & Bassett, 1978). QREG gives a complete picture of the return distribution and plots the family of regression curves corresponding to various percentage points. Thus, it can be evaluated how herd behaviour fares for high quantiles i.e. during asymmetric market movements. QREG is a better estimator viz-a-viz OLS which is a mean based regression estimation. In addition, QREG can be used for estimation of non normal distributions also (Barnes & Hughes, 2002) making it more efficient than OLS (Buchinsky 1998). Zhou & Anderson (2013) use QREG to study herd behaviour in U.S equity real estate investment trust market. Vo & Phan (2016) study the Vietnam equity markets for herd behaviour for the time period 2005 to 2015 using a sample of 299 companies. Pochea, Filip & Pece (2017) study the Central and Eastern European countries using QREG ( $\tau$ ) estimator. Following is the equation:

$$Q\tau(\tau|X_t) = \gamma_{0\tau} + \gamma_{1\tau}R_{mt} + \gamma_{2\tau}|R_{mt}| + \gamma_{3\tau}(R_{mt} - R_m)^2 + \gamma_{4\tau}CSAD_{t-1} + \epsilon_{t\tau} \quad (13)$$

The above equation is for QREG is used for measuring the dependent variable CSADt on independent variables  $X_t$  for  $\tau$  quantiles.

## 5. Herding in Different types of Capital Markets

Maximum research on herd behaviour concentrates on the equity market segment. In their classical work, Chang et al. (2000) find that US and Hong Kong equity markets do not show any evidence of herding while Japan has partial herding. However, they find that South Korean and Taiwanese equity markets display significant herding. The authors reason that incomplete information disclosure might be the factor responsible for herding in emerging economies. Kumar, Bharti & Bansal (2016) examine the Indian equity market using data of Nifty index and its constituent companies for the period 2008 to 2015. The study concludes no aggregate market wide herd phenomenon. Similarly, Oehler (1998) finds not much evidence of excess herding in German stock market. Filip, Pochea & Pece (2015) study the sectoral stocks of banking, financial services, construction, energy, pharma and hotels in Central and Eastern European countries and conclude that herd phenomenon is prevalent in all capital markets except Poland and the phenomenon is more pronounced

during down market. In a similar study of the Indian information technology sector stocks, Kumar & Bharti (2017) conclude no significant herding. On the other hand, Bharti & Kumar (2019) find evidence of herd pattern for the Indian banking sector stocks during bear phase. They reason that since the banking sector in India during the sample time period is in a midst of a major revamp with a burden of non performing assets, any "good news" in the market leads to scepticism and collective investor behaviour resulting in herding. Ouarda, Bouri & Bernard (2013) use the monthly frequency data and conclude that all sectors of the European market except consumer goods sector display herd behaviour. In addition, the financial crisis has had a more pronounced effect on herding in financial and technology stocks sector.

A handful of studies also focus on herding in bond and commodity markets. Oehler & Chao (2000) in their study of the German bond market construct 'bond groups' based on characteristics like interest rates, maturity, collateral and type of issuer to find the criteria that has the maximum impact on herding. They conclude that bond markets also herd, albeit the intensity is lower than stock market and nominal interest rates is the only criteria to determine excess herding. Despite the speculation that financial derivatives generate, there has only been limited research in these markets. Gleason, Lee & Mathur (2003) find no herd behaviour for commodity futures. Avery & Zemsky (1998) postulate that derivatives lead to price discovery and reveals multidimensional uncertainty that may make price bubbles and herding less pronounced. Kodres & Pritsker (1996) analyze the futures contracts of interest rates, currency and S&P 500 index to conclude no significant herd pattern.

The significance of domestic and foreign institutional investors and their impact on the behavior of financial market participants cannot be ignored. Studies on the money managers tendency to herd have been conducted and the seminal work of LSV (1992) finds weak evidence for small and large stocks to herd. Pacheco (2016) finds Portuguese mutual funds herd more than the mature markets of the UK and US. Grinblatt, Titman & Wermers (1995) also provide similar results for the US mutual funds. A possible reason for mutual fund managers to herd can be compensation schemes (Dennis & Strickland, 2002). Haigh,

Byod & Buyuksahin (2019) find some evidence of herding among hedge funds in French markets but conclude that it is not destabilizing. Gleason, Mathur & Peterson (2004) conclude that exchange traded funds on the American Stock Exchange do not herd even during extreme market movements.

## 6. Herding in Emerging and Developed Countries

Developed and emerging financial markets are different in terms of structure, transparency, information disclosure mechanisms, turnover and liquidity. These differences have the potential to guide the trading patterns of financial market participants. Christie & Huang (1995) infer absence of herd pattern in the US markets (Chang et al., 2000; Chiang & Zheng, 2010). In contrast, some studies witness the evidence of positive feedback trading in the US markets (Nofsinger & Sias, 1999). Chang et al. (2000) finds partial herd behavior in Japan whereas Iihara, Kato & Tokunaga (2001) find significant herd pattern. Evidence of herding in European countries is also documented by researchers. Zaharyeva (2009) finds Ukraine market to display herd pattern. Athens stock market (Caporale, Economou & Philippas, 2008) and Italian markets (Caparrelli, D'Arcangelis & Cassuto, 2004) provide evidence of significant herd phenomenon. Sardjoe (2012) concludes no herd pattern for Russian markets whereas results by Nikulina & Bouev (2018) study yields significant herd behaviour especially during down phase and report that any negative news in the market results in intentional herding. Similar results are reported by Indārs & Savin (2017) for presence of herd phenomenon during down market days on the Moscow exchange.

On the other hand, emerging economies are characterised by low degree of sophistication and liquidity that also impacts the behavioural patterns of investors. Equity markets of emerging Asian countries of South Korea and Taiwan witness herding (Chang et al., 2000). The study concludes that macroeconomic as against firm specific information has more impact on the markets of Taiwan and South Korea. Also, Demirer, Kutan & Chen (2010) find no herd behaviour in Taiwan using the Christie and Huang (1995) model, but report significant herding when the study employs the Chang et al. (2000) model. Chiang & Zheng (2010) find signs of more profound herding during bull phase for the Asian markets. Chinese A-share market

also display herd pattern (Tan, Chiang, Mason & Nelling, 2008; Chiang, Li & Tan, 2010). In contrast Yao et al. (2013) infer herd pattern in the Chinese B-share market stocks, especially during down condition. Luo & Schinckus (2015) surmise that the US markets cause spillover in the Chinese markets that display herd phenomenon. Demirer & Kutan (2006) examine the Shanghai and Shenzhen stock exchanges and report no evidence of herding. Their results agree with Chen, Rui & Xu (2003). Funds in the emerging markets also display more herding (Borensztein & Gelos, 2003). Similar results are available for Korea (Choe et al., 1999). Duasa & Kasim (2008) find herd pattern in Malaysian stock market.

### 7. Herd Behaviour under Asymmetrical Market Conditions

This classification examines herd behaviour under asymmetrical market movements. Research has been conducted to evaluate if the behaviour is prevalent during asymmetrical market movements of up and down. Lao & Singh (2011) report Chinese market herd more during downward phase whereas it is the opposite for India that shows herding during upswings (Prosad, Kapoor & Sengupta, 2012). On the contrary, Kumar et al. (2016) report that Indian equity markets do not show any signs of herding during asymmetrical market movements. The study explains that institutional investors with better access to research reports, constitute major proportion of participants in the Indian equity market, thereby following their private information, display reduced tendency of herd behaviour. Similar results are reported for the Korean market during crisis period (Choe et al., 1999). In contrast, Tan et al. (2008) conclude that Chinese market exhibits the herd phenomenon during rising and falling conditions. In a similar argument, Christie & Huang (1995) find that market stress aggravates herding. The study finds that increase in dispersion is more profound during up markets relative to down movement. Chang et al. (2000) argue that herding exists in the market under normal conditions, although it becomes more evident during asymmetries. Similar results are obtained by Caparrelli et al. (2004). Chiang & Zheng (2010) examine eighteen countries to conclude that with the exception of the US and Latin America, all countries, especially Asian economies display herding, during upswings. The study goes on to conclude that herd behaviour leads to contagion effect that spreads

from origin country to others. Chang et al. (2000) gather evidence that South Korea and Taiwan markets display herding during up and down conditions whereas the US, Japan and Hong Kong show no pattern. Metwally, Eldomiaty & Wahab (2016) study the Egyptian markets for the period 2007 to 2012 and conclude that herding exists during down markets and that the markets are inefficient during up and down swings. This is in contrast to results obtained by El Shiaty & Badawi (2014) who find no evidence of herd phenomenon in Egypt for the period 2006 to 2010. Fu & Lin (2010) demonstrate that herding is significantly higher during downswings. This is supported by the evidence provided by Sardjoe (2012) where Russian markets herd in the down phase rather than up. However, no evidence of herd pattern is reported during market stress or Russian financial crisis. Bowe & Domuta (2004) report that foreign traders exhibit increased herd behavior during the 1997 Asian crisis whereas domestic traders display less pronounced behaviour during and post crisis. Athens stock exchange exhibits market wide herding pattern and also during the stock market crash of 1999 (Caporale et al., 2008; Tessaromatis & Thomas, 2009). Eguiluz & Zimmermann (2000) opine that herding may account for occurrence of market crashes.

### 8. Conclusion, Gaps in Literature and Scope of Future Research

The present paper is a systematic review of the literature on herd phenomenon in financial markets. Our analysis is based on five categories in which all the papers are categorized, namely types of financial market participants, empirical methodologies, types of capital markets, developed and emerging economies and asymmetrical market movements. The articles reviewed in this paper suggest that the results are in contrast with each other and inconclusive. Firstly, on one hand LSV(1992), Grinblatt et al. (1995) and Christie & Huang (1995) infer limited institutional herding, there are studies by Choi & Sias(2009) that suggest significant herd behaviour among institutional investors. Similarly, results of herding by analysts and newsletters are opposite and indecisive. On one hand studies reason that analysts herd to guard their reputation (Trueman, 1994; Cote & Sanders, 1997) while others conclude anti-herding (Bernhardt et al., 2006; Pierdzioch, Rülke & Stadtmann, 2013; Pierdzioch & Rülke,

2012). Second, the metrics used to measure herd phenomenon are not devoid of limitations. This to some extent can be a possible reason for inconclusiveness of the empirical work. We discuss the LSV (1992) method and its limitations. The paper also examines the dispersion method of Christie & Huang (1995) and Chang et al. (2000) and the variations as proposed by Yao et al. (2013) and Filip et al. (2015). Third, herding literature in developed and emerging economies too has provided with contrasting results. While, Chiang et al. (2010) conclude that Chinese A-share markets exhibit herding, Yao et al. (2013) find that the Chinese B-share display the pattern especially during downward movement. Also while one set of studies conclude that herd behaviour is exhibited during asymmetrical market conditions (Metwally et al., 2016), other studies (El-Shiaty & Badawi, 2014) conclude the absence. Fourth, differentiating between spurious and intentional herd behaviour is easier said than done and accordingly it might lead to different empirical investigation of the topic. Fifth, the existing studies also do not address the issue of 'silent or passive herding'. There can be a possibility that an investor based on the private information, decides to invest in a stock but avoids it by observing others. This passive type of herding is ignored by the empirical methods which examine herd behaviour only when an investor invests. Sixth, herd behaviour has been studied with respect to each country individually. In a globalised and interconnected world, the spillover of such an investor behaviour to neighboring financial markets has not been evaluated.

The above discussion helps in identifying the scope of future research. First, this review suggests an addressal mechanism for measuring herding intensity in terms of trade volumes or any other appropriate parameter. Also, it can be examined if it is the same investors who herd repeatedly for same reasons. Furthermore, the Indian capital markets provide a lucrative ground to study the behaviour of investors. According to reports, the market capitalization of the Indian equity market is expected to touch USD 6.1 trillion by the year 2027 (Business Standard, dtd. March 12, 2018). It is therefore important to examine the behavioural biases of investors so that appropriate mechanisms can be introduced in the market making it more efficient that fosters investor confidence. Subsequently, although present, yet more research on

herding in other capital markets, for instance, commodity and debt can be undertaken for the India. Herding behaviour in one sector also has the tendency to cause contagion effect on other sectors especially when they are highly correlated. It will be interesting to examine the spillover of herd behaviour from one sector to others. In addition, passive herding, that is extremely difficult to observe and measure can be further studied and an appropriate method be devised to test it.

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# Factors Affecting Consumers' Attitude towards Domestic Products in Developing Countries: A Conceptual Paper

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## Abstract

Extant literatures indicate that consumers in developing countries prefer imported products to domestic products in developing, particularly in African countries. Improving the attitude of consumers towards domestic products in such countries may increase competitiveness of the countries' manufacturing industries, which are dominated by micro and small scale enterprises. Exhaustive literature review was conducted to identify factors affect consumers' attitude towards domestic products in developing countries with special emphasis on African countries. Based on the identified factors, conceptual model and propositions were developed drawing upon social identity and system justification theories. Consumers' attitude towards domestic products is positively affected by consumer knowledge and ethnocentrism; negatively by consumer xenocentrism, cosmopolitanism and status consumption. The model will give good insight to those who want to conduct empirical research in the area and it will be a stepping stone for policy makers, international markets and international trade analysts of the sub-continent.

**Keywords:** Consumer attitude, domestic product consumption, developing countries, African countries, manufacturing industries, country of origin effect, international trade

## 1. Introduction

*"It is evident that nothing so much contributes to promote the public well-being as the exportation of manufactured goods and the importation of foreign raw material." (Fredric List, 1885 Pp. 40)*

Consumers' attitude, which is the feeling and proclivity towards products and their cues, is one of factors that affect international trades. Consumers buy a product when they have the willingness to buy and ability to pay (Kotler & Keller, 2011). The willingness to buy comes from consumers' attitude towards the product and its cues, which are categorized as intrinsic and extrinsic (Bandara & Miloslava, 2012; Watson, 2000). The intrinsic cues of a product indicate the basic component or feature which users actually consume at the end. For example, the nutrients and the chemical composition of the product are the core benefits that consumers reap at the end (Chattalas, Kramer, & Takada, 2008). Extrinsic cue, on the other hand, are external information or indicators of the intrinsic values of products. For example, the packages of product are extrinsic cues which indicate the composition,

price, origin and other related information of the product (Vida & Reardon, 2008).

In many circumstances, extrinsic cues significantly affect the attitude and determine the demand of a product (Aqueveque, 2006). One of such extrinsic cues of products is country of origin (Made in...) cue (Chattalas et al., 2008). Country of origin has affected the survival and growth of manufacturing industries of developing countries, particularly of African countries (Batra, Ramaswamy, Alden, Steenkamp, & Ramachander, 2000; Okpara & Anyanwu, 2011). According to World Bank, countries with GNI per capita income less than \$ 12,475 are classified as developing countries or low and middle income countries (Nielsen, 2013). Manufactured products from developing countries, particularly from African countries have low acceptance in developing countries and local markets because of the "Made in..." cue, and consumers are reluctant to consumer products from such origin (Batra et al., 2000; Okpara & Anyanwu, 2011). For example, Okpara & Anyanwu (2011) indicated that footwear industry in Nigeria is affected by lack of demand

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while the same imported products have high demand in the market. Similarly, Ethiopian Central Statistical Agency (ECSA, 2017) indicated that local manufacturing industry suffers from lack of demand while the same imported products are highly welcomed by consumers.

Consumers' reluctance to consume manufactured products from African countries has left the manufacturing industry of African countries with small market share with decreasing trend in the global market (Okpara & Anyanwu, 2011; Schmieg, 2016). For example, Africa's manufactured product global trade share has decreased from 5.92% in 1980 to 3.42% in 2012 despite the whole developing countries manufactured products global trade share has increased from 29.65% in 1980 to 44.61% in 2012 (UNCTAD, 2013a, UNCTAD, 2013b). Africa's global share further decreased to 2.4% with only 1.7% for sub-Saharan Africa in 2016 (Schmieg, 2016). In the same token, based on lack of demand following ill attitude towards manufacturing products from African countries, many manufacturing firms of the continent have been closed and employees have been laid-off and firms capacity utilization has declined as low as 30% (ECSA,

2017). The average share of manufacturing in GDP is about 10% in 2014, much lower than it had been 15% in 1970s (McMillan, Rodrik, & Verduzco-Gallo, 2014).

If we see the trend at country level, for example, Ethiopia's manufacturing industry performance is not promising because of lack of demand. The share of formal employment in overall manufacturing employment is as low as 6% in Ethiopia (McMillan et al., 2014). The import trade has been increasing while the export has been stagnating despite the government has an ambitious plan to increase export and to decrease import (Schmieg, 2016). The country's import has increased from \$1.52 billion in 1997 to \$17.9B in 2017 while the export trade has increased from \$0.68 billion to \$3.13 billion (ITC, 2017) as shown on table one. In the same token, many manufacturing enterprises challenged by lack of demand in the local market while similar products imported from developed and emerging countries enjoy sufficient demand (ECSA, 2017). A survey by central statistical agency of Ethiopia in 2015 indicated that lack of demand for manufactured products is the major reason to operate below capacity.

**Table 1: Export-Import Trade Balance of Ethiopia**

Year	1997	2002	2007	2011	2016
Import (Billion Dollar)	1.52	1.7	5.94	8.83	17.9
Export (Billion Dollar)	0.677	0.502	1.54	2.88	3.13
Balance (Billion Dollar)	-0.843	-1.198	-4.4	-5.95	-14.77
% of Manufacture products	9.65	14.31	13.75	10.37	7.33

Source: International Trade Centre (2017)

Based on the longstanding problem, African countries have been working to strengthen their manufacturing industry. Various political and economic reforms have been implemented to increase export and decrease import. High tax on imported products, banning some imports, and devaluated currency are some of the actions by governments. Non-governmental organizations such as UNDP and/or benevolent foreign governments such as AGOA agreement by America and Cotonou agreement by European Unions have been signed and implemented to

supported export-expansion endeavors by giving preferential access to products from African countries (Osakwe, Banga, & Bolaky, 2014).

However, such approaches have brought very low impact on improving the continent's trade balance and creation of demand for products from manufacturing industries of African countries. On the contrary, consumers are more attracted towards imported products than domestic products because the intervention elicited price-quality relation heuristics (Verma & Gupta, 2004). The increased

tariff and taxes made imported products expensive and less available in some situation. Such less availability and expensiveness resulted in status consumption effect of imported product (Nabi, O' Cass, & Siahtiri, 2019). Such status effect of imported products requires an action to improve the attitude of consumers before making interventions such as banning, high tax and other related actions on imports. Improving the attitude of consumers towards manufactured products from the continent may play its part in creating national competitive advantage. Porter (1990) indicated that strong domestic demand is one of the major reasons for national competitiveness.

Improving the attitude can be done in two fronts: International and Domestic. Improving the attitude of consumers in export destination requires long-term marketing strategies besides political, economic, technological and social endeavors (Koed Madsen, 2006; Paul, Parthasarathy, & Gupta, 2017). Much of the manufacturing industries of the developing countries, particularly African countries are at their micro and small scale (Sveinung, Leo, & Chris, 2010). By their very nature, unfortunately, micro and small scale enterprises are not as good as large enterprises in achieving economy of scale/scope and learning curve (Paul et al., 2017; Sveinung et al., 2010). Further, international trade requires strong international marketing skill and experience which most of the African countries lack (Paul et al., 2017). In addition, breaking international market particularly in markets in developed countries require lower cost with better quality. Thus, changing the attitude of consumers in international market may be taken as long-term objective because it is mainly achieved after success in the local market (Porter, 1990)

Improving consumers' attitude in the domestic market is a possible short and long-term solution with further positive impact on export performance. Improving the attitude of local consumers towards local products may decrease import and assure the survival and growth of micro and small scale dominated manufacturing industry of the continent (Porter, 1990). Similarly, the existence of sufficient local demand may stimulate investment and joint ventures, which play significant role in creating opportunities for technology transfer and

innovation (Porter, 1990). Thus, here we review extant literatures on consumers' attitude towards domestic products to identify factors affect consumers attitude towards domestic and to develop propositions on the identified factors.

## 2. Literature Review

### 2.1 Consumers' attitude and country of origin effect.

Consumers' attitude is defined as consumers' feeling towards the products and its cues, which are classified as extrinsic and intrinsic. One of the extrinsic cues that affect the attitude of consumers towards a product is country of origin or the "Made in..." cue of products. After the seminal idea raised by Ernest Dichter (1962) and published in the Harvard Business Review as "The little phrase 'Made in ...' can have a tremendous influence on the acceptance and success of products.", special attention has been given for country of origin and its impact on consumers' attitude towards products (Chattalas et al., 2008). The influence of country of origin on consumer attitude was, for the first time, studied by schooler (1965) who concluded that country of origin of a product has important effect on the opinions and thus the buying behavior of consumers (Shankarmahesh, 2006). A meta-analysis by Chattalas et al (2008) indicated that country of origin cue of products significantly affects consumers attitude towards a product. The intensity of country of origin effect varies with product type, consumer involvement level, amount of cues, consumers' psychological and demographic backgrounds, consumer ethnocentrism tendency, and country and national stereotypes.

Consumers are sensitive for country of origin of products for various reasons. Quality perception, psychological values, social issues are considered as the major factors that trigger country of origin sensitivity (Alden, Steenkamp, & Batra, 2006; Batra et al., 2000). Country of origin cues of products has strong correlation with quality perception particularly when consumers lack sufficient information about the product or have doubt on other cues (Chattalas et al., 2008; Elliott & Cameron, 1994). Consumers associate the quality of products with certain country of origin or a country historically known for a product is also concluded for other products too (Chattalas et al., 2008). Thus, lack of confidence on the quality of products from certain origins

triggers consumers to be sensitive for the “Made in...” cue of products.

In different vein, consumers become sensitive for country of origin when their country is threatened by other foreign country(Shankarmahesh, 2006; Watson, 2000). When there is hostility or war between two countries, consumers in respective countries harbor animosity towards the opponent country and become sensitive for country of origin in order to shun purchase of products from that country(Marti & Jime, 2010; Shankarmahesh, 2006). Further, consumers become sensitive for country of origin when they feel that imported products consumption will affect domestic economy and local culture(Chattalas et al., 2008; Sharma, Shimp, & Shin, 1995). In such a condition, consumers become sensitive for country of origin and prioritize domestic product over imported products(Josiassen, 2011; P. W. Verlegh, 2007). Thus, consumer ethnocentrism in its technical terms, signals consumers to be sensitive for country of origin of products.

In the same, but in different approaches, consumers become sensitive for country of origin of products because of self-esteem effect(Batra et al., 2000). Self-esteem effect shows consumers sensitivity for country of origin because of the status impact of products from certain origins. Consumers try to show their well-off or social status by consuming products from certain origin, which have perceived high quality or expensive or not affordable to other people(Nabi et al., 2019). For example, French wine, Italy Fashion, Switzerland watch etc. have status effect besides their long-standing quality reputation(Balabanis & Diamantopoulos, 2016; Ranjbarian, 2010). Similarly, consumers want to be eclectic in their consumption by buying products from various origins(Prince, Davies, Cleveland, & Palihawadana, 2016). Thus, consumers evaluate the “made in... cue” before making purchase decisions in order to make their consumptions to have the taste of various country of origins with a motive of being a global citizen and increase self-esteem.

## **2.2 Consumers attitude towards manufactured products from developing countries**

The world is divided into two categories, at least: developed and developing, and consumers have different attitude towards products from these two origins(Nielsen,

2013). Studies(Hamin & Elliot, 2006; Okechuku & Onyemah, 1999; Tsai, Lee, Song, Tsai, & Lee, 2013) indicate that consumers have negative attitude towards manufactured products from developing countries. Consumers in developed countries prefer manufactured products from either domestic market or products from other developed countries(Alden et al., 2006; P. W. J. Verlegh, 1999). Similarly, consumers in developing countries prefer products from developed countries to developing countries including home-made products(Okpara & Anyanwu, 2011). Despite consumers in India are much price sensitive, they exhibited strong need for foreign brands(Kumar, Lee, & Kim, 2009; Mukherjee, Satija, Goyal, Mantrala, & Zou, 2012). Consumers in developing countries, particularly in Africa prefer imported products particularly from developed countries to domestic products(Kaynak, Kucukemiroglu, & Hyder, 2000; Okpara & Anyanwu, 2011).

The reason why consumers have positive or negative attitude towards manufactured products from developed and developing countries is directly related with why consumers are sensitive for country of origin(Chattalas et al., 2008). The common feature of consumers in both developed and developing countries is their concern for quality(Balabanis & Diamantopoulos, 2016; Batra et al., 2000; Elliott & Cameron, 1994). Consumers in both developed and developing countries categories lack confidence on the quality of products from developing countries, particularly from African countries (Batra et al., 2000; Ladipo, Bakare, & Olufayo, 2012). Hence, stereotypically, consumers have negative attitude towards manufactured products from developing countries.

In addition to quality effect, consumers in developed countries are reluctant to consume products from developing countries because of their consumer ethnocentrism tendency. Extant literatures (Balabanis & Diamantopoulos, 2016; Steenkamp & Jong, 2010; Tsai et al., 2013) indicated that consumers in developed countries are more ethnocentric than consumers in developing countries. Consumers in developed countries show strong solidarity to their country by buying domestic products in order to support local economy and the job opportunity of their fellow citizens(Josiassen, 2011; P. W. Verlegh, 2007). The more recent protectionism campaign such as “buy

local" and bans of imports by American government are good witnesses for the ever growing sentiment of ethnocentrism tendency in developed countries. Further, patriotism plays significant role as consumers in developed economies as consumers are proud of their technology and products than consumers in developing countries, particularly in African countries.

Besides quality effect and consumer ethnocentrism tendency, products from developed countries have status effect in developing countries (Balabanis & Diamantopoulos, 2016; Batra et al., 2000). The existing system which compels countries and consumers to believe that developing countries are inferior to the developed countries tacitly makes consumers in developing countries, particularly in African countries, to undermine their own values and appreciate the imported one (Mueller, Wang, Liu, & Cui, 2016; Okpara & Anyanwu, 2011). Balabanis & Diamantopoulos (2016) indicated that consumers in developing countries, particularly in African countries have developed consumer xenocentrism tendency because of perceived inferiority and social aggrandizement. Similarly, Josiassen (2011) indicated that consumers in developing, particularly in African countries disassociate themselves with the domestic values and people but associate themselves with foreign values and people.

Cognizant to the above points, the impact of consumer ethnocentrism tendency in developing countries, particularly in African countries is oppressed by quality and self-esteem effects (Balabanis & Diamantopoulos, 2016; Shankarmahesh, 2006). Despite theoretically ethnocentrism is expected to be high in less developed and less civilized societies (Sharma et al., 1995), consumer ethnocentrism strength is challenged in developing countries context (Bevan-dye, Garnett, & Klerk, 2012; Pentz, Terblanche, & Boshoff, 2013). Hence, the effect of quality perception and self-esteem dilutes the effect of consumer ethnocentrism effect in developing countries' context.

### **2.3 Theoretical Framework**

We draw our argument on social identity approach and system justification theories to consolidate factors affect consumers' attitude towards domestic products in developing countries. Social identity approach comprises

social categorization and social identity theories which are interrelated and overlapped in many circumstances. In view of the social categorization theory, consumers categorize products as domestic and foreign products where the first is about the "in-group" and the latter one is about the "out-group" (Tajfel, H., & Turner, 1979; Tajfel, 1974). Domestic products refers to products produced in the territory of a country using the majority of its resources and labeled as "Made in..." the country, where the consumer is living, and any other country is categorized as foreign country (Chattalas et al., 2008). Consumers have either positive or negative attitude towards domestic or foreign products depending on the overall benefit to themselves and to their "in-group".

Social identity is defined as "...part of individual's self-concept which derives from his knowledge of his membership of a social group together with the emotional significance attached to it." (Tajfel, 1974). People yearn to create positive social identity that increases their self-esteem, which sources from the favorable comparison between the "in-group" (the group that the individual affiliates with) and the "out-group" (the group that is not associate or affiliated with) (Tajfel, H., & Turner, 1979). Such group membership results in intergroup behavior depending on individual's intensity of identification with the community or the group.

According to social identity theory people prefer the "in-group" to the "out-group" and develop either negative or neutral attitude towards the out-group (Tajfel, 1974). Domestic products are made by the local raw materials, with local labor force, local technology, branded with local symbols and values, and have the taste of the local culture (Alden et al., 2006). Consumers are expected to purchase domestic products in order to increase their self-esteem because of their affiliation to their "in-group" (Chowdhury, 2012). In such a condition, according to social identity theory, consumption of imported products would decrease self-esteem as it keeps the consumer away from the local people (the in-group). Hence, it is possible to infer that consumers will have positive attitude towards and willing to buy domestic products (in-group) than foreign products (out-group).

However, on the contrary, system justification theory argues against the conception of social identity

theory(Balabanis& Diamantopoulos, 2016). System justification theory states that people are satisfied by defending and legitimizing the existing social arrangements even at the expense of personal and group interests(Prince et al., 2016). It aims to describe the phenomena of the “in-group” derogation and the “out-group” favoritism, mainly among the members of low-status groups. Members of groups that are low in social or material standing favor the “out-group” that are high in social and material standing, and derogate the “in-group”. Further, System Justification theory indicates that people tend to validate the existing system by accepting their alleged inferiority as genuine(Jost, Banaji, & Nosek, 2004). Hence, low status groups internalize society’s unfavorable image, and use the “out-group” favoritism to rationalize and perpetuate the system hierarchy that they have internalized(Balabanis& Diamantopoulos, 2016; Prince et al., 2016). To sum up, consumers in developing countries, particularly in Africa have negative attitude towards domestic products while positive attitude towards imported products.

### 3. Conceptual Framework and Propositions

Based on the arguments using the two theories and empirical evidences from the literature review we identified factors which affect consumers’ attitude towards domestic products in developing, particularly in African countries. Consumer ethnocentrism, consumer xenocentrism, status consumption, consumer knowledge and consumer cosmopolitanism are factors which affect consumers attitude towards domestic products. The identified factors are constructs which are assumed as variables affecting consumers’ attitude towards local. Some factors positively affect consumers’ attitude towards domestic products while some are positively affecting the attitude. In the framework, we conjectured that two factors positively affect the attitude and counteract the effect of factors that affect the attitude negatively.

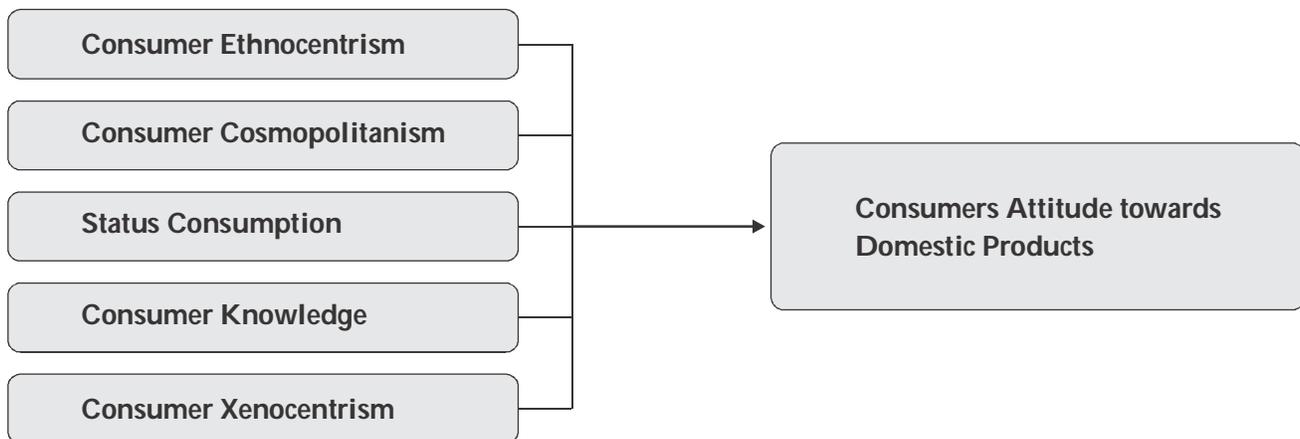


Figure 1: Conceptual Framework

#### I. Consumer Xenocentrism

Consumer xenocentrism shows consumers preference of imported products to domestic products feeling that purchase of the later one decreases self-esteem. It is defined as a person’s tendency of taking the “in-group” inferior and idealize the value of the “out-group”, and also defined in the contrast of consumer ethnocentrism(Prince et al.,

2016). Consumer xenocentrism and consumers attitude towards domestic products are negatively related because of perceived inferiority and social aggrandizement (Balabanis & Diamantopoulos, 2016). According to system justification theory, people in the lower group acknowledge their inferiority and accept the superiority of the higher group(Jost et al., 2004). Such acceptance leads

derogation of the in-group and appreciation of the out-group. In the same logic, consumers in developing countries appreciate the brands and products from developed countries (Prince et al., 2016). Such appreciation, intentionally and unintentionally, leads to have positive attitude towards manufactured products from developed countries.

**Proposition One:** *Consumers who have higher consumer xenocentrism tendency have negative attitude towards domestic products.*

## **II. Consumer Cosmopolitanism**

Consumer cosmopolitanism is consumers' global citizenship and a feeling to purchase products from various sources (Zeugner-roth, Zabkar, & Diamantopoulos, 2015). It is about consumers need to travel, to integrate to the rest of the world, to experience the living and life of others without derogating their own. Hence, the existence of higher cosmopolitanism decreases the propensity of patriotism and prejudice against others value (Vida & Reardon, 2008). A study by Prince et al. (2016) indicates that consumer cosmopolitanism has negative relationship with consumer ethnocentrism and has positive relationship with consumer xenocentrism. Similarly, Han (2017) revealed that consumers with higher consumer cosmopolitanism prefer imported products to domestic products. Indicated that consumer cosmopolitanism has negative relationship with consumer ethnocentrism and national identity as well as low attachment to home country attachment. Hence, consumer cosmopolitanism hampers the effect of consumer ethnocentrism on consumers' attitude towards domestic products.

**Proposition Two-One:** *Consumers who have higher consumer cosmopolitanism tendency have negative attitude towards domestic products.*

**Proposition Two-Two:** *Consumers who have higher consumer cosmopolitanism tendency have higher consumer xenocentrism tendency*

## **III. Status Consumption**

Status consumption derived from social status, which is defined as individual's hierarchical classification within a community or society based on material possession, power or wealth. Status consumption, thus, is defined as "the

motivational process by which individuals strive to improve their social standing through the conspicuous consumption of consumer products that confer and symbolize status both for the individual and surrounding significant others" (Eastman et al., 1999). It reflects consumers' need to show their well-to-do through purchase of products which are not affordable to the lower class or are not accessible even in their class (Batra et al., 2000; Nabi et al., 2019). The relationship between status consumption and consumers attitude towards domestic products is dependent on which one symbolizes status. In this regard, imported products from developed countries to developing countries are expensive because of high customs duties and other related taxes. Such expensiveness of imported products triggers consumers to prefer imported products in order to demonstrate their uniqueness or affluence. Hence, in developing countries, particularly in African countries, domestic products have low effect on status.

**Proposition Three-One:** *Consumers who have higher status consumption tendency have negative attitude towards domestic products*

**Proposition Three-Two:** *Consumers who have higher status consumption tendency also have higher cosmopolitanism tendency*

**Proposition Three-Three:** *Consumers who have higher status consumption tendency also have higher consumer xenocentrism tendency*

## **IV. Consumer ethnocentrism**

Consumer ethnocentrism is a special type of ethnocentrism and it is defined as "...beliefs held by...consumers about the appropriateness, indeed morality, of purchasing foreign-made products." (Shimp & Sharma, 1987). Consumer ethnocentrism and consumers attitude towards domestic products are positively related (Shankarmahesh, 2006; Sharma et al., 1995; Shimp & Sharma, 1987). According to social identity theory, consumers prefer products from their country to products from other countries in order to increase their self-esteem by being patriotic. Further, social identity theory indicates that people are empathetic and try to support the "in-group" at the expense of personal benefit when they feel that the "in-group" is threatened by (Tajfel, H., & Turner, 1979). Thus, consumers try to support or protect their country (in-

group) by consuming domestic products depending on their ethnocentrism tendency level.

**Proposition Four-One:** *Consumers who have higher consumer ethnocentrism tendency have positive attitude towards domestic products*

**Proposition Four-Two:** *Consumers who have higher consumer ethnocentrism tendency have lower consumer xenocentrism tendency*

**Proposition Four-Three:** *Consumers who have higher consumer ethnocentrism tendency have lower consumer cosmopolitanism tendency*

**Proposition Four-Four:** *Consumers who have higher consumer ethnocentrism tendency have lower status consumption tendency*

#### **V. Consumer Knowledge**

Consumer knowledge is defined as consumers' awareness of domestic product consumption on the local economy and the country at large (Park, Mothersbaugh, & Feick, 2002). Consumer knowledge as the cognitive part of consumer attitude, consumers are willing to sacrifice their benefit when they know the importance of domestic product consumption (Choi & Hwang, 2019). Thus, the more knowledge consumers have about the importance of domestic product consumption, the more they develop positive attitude towards domestic products (Brosdahl & Carpenter, 2010; Ok Park & Sohn, 2018). Further, when consumers have better knowledge about domestic products consumption, the more they become ethnocentric and hence developed positive attitude towards domestic products (Cherian & Jacob, 2012). Thus, consumers' knowledge and awareness of the impact of their purchase on their "in-group" or their significant others leads them to have positive attitude towards the product.

**Proposition Five-One:** *Consumers who have higher consumer knowledge have positive attitude towards domestic products*

**Proposition Five-Two:** *Consumers who have higher consumer knowledge have higher consumer ethnocentrism tendency*

**Proposition Five-Three:** *Consumers who have higher consumer knowledge have lower status consumption tendency*

**Proposition Five-Four:** *Consumers who have higher consumer knowledge have lower cosmopolitanism tendency*

**Proposition Five-Five:** *Consumers who have higher consumer*

*knowledge have lower consumer xenocentrism tendency*

#### **4. Conclusions and Future Directions**

As of now, few studies have been focusing on the importance of consumers' attitude towards domestic products in the context of developing countries. There exists a dearth of theoretical and empirical evidences on the factors that affect consumers' attitude towards domestic products in developing countries. This study specifies factors affect consumers' attitude towards domestic products in developing countries drawing upon social identity and system justification theories. Based on empirical and theoretical literature reviews, five constructs are identified as factors affect consumers' attitude towards domestic products in the context of developing countries.

Consumer ethnocentrism and consumer knowledge will have positive effect while the remaining have negative effect on consumers' attitude towards domestic products in developing countries, particularly from Africa. Thus, in order to improve the attitude of consumers towards domestic products and to manage the prevailing demand problems, African countries have to increase consumer knowledge and consumer ethnocentrism. The underlying reason is that consumer knowledge and consumer ethnocentrism will counteract consumer xenocentrism, consumer cosmopolitanism and status consumption effects on consumers' attitude towards domestic products.

This paper is a good starting point for anyone who wants to empirically examine consumers' attitude towards domestic products in the domain of international consumer behavior and international marketing. Further, it will give a good understanding to policy makers to deal with international trade issues and local manufacturing industry's affairs in the context of developing countries, particularly in the African countries. When tested, the model will give a lot of insights to international marketers and international consumer behavior analyst with special emphasis on developing countries, particularly African countries.

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# Dual-ethnocentrism Impact on Purchase Likelihood of Home and Host Country Products: A Quest

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## Abstract

Dual-ethnocentrism is the phenomenon in which a consumer has dual country affiliation and hence two countries are at the core of their heart: a home country with which the consumer is ethnically and culturally linked due to birth and grow-up and a host country where the consumer presently live and work. Until now, studies on consumer ethnocentrism impact on purchase intention were limited to a host country perspective. This study expands the domain of ethnocentric studies by investigating the impact of dual-ethnocentrism on purchase intention of home and host country products. Findings obtained from the study revealed that dual-ethnocentric consumers evaluate alternatives from both home and host country positively, however the strength of association for home country is higher than the host country affiliated products. Study also discussed the possible implications of the findings theoretically as well as managerially.

**Keywords:** Ethnocentrism, Dual-ethnocentrism, Purchase likelihood, Home country, Host country.

## Introduction

Banna, Papadopoulos, Murphy, Rod & Rojas-Mendez (2018) in their research article in Journal of Business Research titled 'Ethnic Identity, Consumer Ethnocentrism and purchase intentions among bi-cultural ethnic consumers: "Divided Loyalties" or "dual allegiance", introduced the concept of 'dual-ethnocentrism'. They described dual-ethnocentrism as the phenomenon in which a consumer has dual country affiliation and hence two countries are at the core of their heart: a home country with which the consumer is ethnically and culturally linked due to birth and grow-up and a host country where the consumer presently live and work. They argued that, though highly ethnocentric people perceive the products of the host country superior to the other similar foreign alternatives, it might not be same for the dual-ethnocentric consumers. Dual-ethnocentric consumers may have superior feeling for the products and brands of host as well as home countries (Banna et al., 2018). For dual ethnocentric consumers, home country is also equally important since home country products are not considered as imported items and brands. Since the home country is more ethnically and culturally linked for a dual-ethnocentric consumer, they may even feel superior for their home country over the host, resulting in more superior evaluation of products affiliated to home country

over host country (Banna et al., 2018). The idea of dual-ethnocentrism is further elaborated in the literature review section. Banna et al., (2018) confirmed this phenomenon for Egyptian-Canadian ethnic group staying in Canada. From home and host country point of view, Egypt is their culturally and ethnically linked home country whereas Canada is the host country. Subsequent analyses of data from the Egyptian-Canadian revealed that consumers with high level of ethnocentrism towards Egypt prefer to purchase Egyptian products more and Canadian country affiliated products less. Consumers with high ethnocentric feeling towards Canada prefer Canadian affiliated products as well as Egyptian affiliated products. These findings indicate that dual ethnocentrism exists. It has an interesting impact on purchase intension of home, and host country affiliated products. People with stronger host ethnocentric feeling will prefer both host and home affiliated products. However, for people with high ethnocentric feeling towards home country, home affiliated products will have superior image over host affiliated one.

Ethnocentrism, until now is assessed from one's current place of work and stay (host) but literatures have not viewed ethnocentrism from home-host dual relationship perspective. In this context, this study is a pioneering one in the area of conceptualizing and validating the concept of

dual-ethnocentrism. Since a single instance is not sufficient to establish a theory/phenomenon, dual-ethnocentrism needs more empirical evidences from other parts of the world. This phenomenon is required to investigate from other perspectives where dual feelings among consumers exist. Present research is one such attempt to examine whether dual ethnocentrism is a phenomenon or a chance occurrence. What potential impact it has on purchase likelihood for such consumers? How dual ethnocentric consumers evaluate their home and host country products?

This study aims at testing the concept of dual ethnocentrism conceptualized by Banna et al., (2018) and to uncover these phenomena. To test these phenomena, present study surveyed respondents ethnically and culturally linked with Bangladesh due to their birth and grow up but presently residing and working in India. Respondents are selected from Tripura, India to test the dual-ethnocentrism phenomenon due to suitability of the respondents to be considered as dual-ethnocentric which is discussed next.

Indian residents migrated from Bangladesh residing in Tripura during Bangladesh liberation war could be a strong case of dual-ethnocentrism due to the unique socio-political event associated with them. These people are mostly Bengali Hindu migrated from East Pakistan (now Bangladesh) to India during the Bangladesh Liberation War of 1971. Independence of India in 1947 divided united India into two countries: Muslim dominated Pakistan and Hindu dominated India. Tripura during that period was an independent province ruled by the kings. After independence and partition of 1947; Tripura joined the Indian Territory in the year 1956. 1971 Liberation War divided Pakistan into East Pakistan (now Bangladesh) and West Pakistan. During the war, a mass migration of Bengali Hindus' had happened from East Pakistan to India (Tripura) due to the extreme torture carried out by Pakistani army in East Pakistan (Bangladesh). Govt. of India actively supported in the formation of Bangladesh. These migrated people gradually settled, started working and living in Tripura. Thus, dual-ethnocentrism can be a strong case for those people migrated from East Pakistan (Bangladesh) to Tripura (India); due their strong ethnic feeling towards Bangladesh (home country) and towards

India (host country). In this backdrop, present study aims at testing the concept of dual ethnocentrism for this migrated population.

This study will have some significant contributions. In terms of theoretical contribution, it will be an important study to establish the concept of dual-ethnocentrism in consumer behaviour literature. Practically speaking, this study will help marketers in understanding ethnocentrism from a deeper perspective prior application of ethnocentrism in marketing strategy formulations.

### Conceptual Framework and hypotheses

#### ***Consumer Ethnocentrism, Dual-ethnocentrism and Purchase Intension:***

##### ***Consumer Ethnocentrism:***

Ethnocentrism analyzes the world from one's own ethnic perspective and treats one's culture superior to others. The term ethnocentrism is originated in sociology by William Graham Sumner (1906) and brought to marketing and consumer behaviour study as consumer ethnocentrism (CET) by Shimp and Sharma (1987). According to them, consumer ethnocentrism (CET) is the belief that evaluates whether purchasing imported items is right or wrong. It is also the morality a consumer attach to the products produced in home country during purchase. Consumer ethnocentrism has equal applicability for advanced nations (Okechuku, 1994; Vida & Fairhurst, 1999) as well as advancing countries (Supphellen & Gronhaug, 2003; Reardon, et al., 2005; Klein, et al., 2006; Renko et al., 2012). Analyzing ethnocentrism is capable to assess consumers' acceptability of local/foreign made products. An ethnocentric person place maximum importance to his/her own culture (Rahman et al., 2011) and cultural products compared to other cultural symbols. Regarding antecedents of consumer ethnocentric tendencies, researchers put forth the following observations: consumer ethnocentrism is 1) positively associated with conservatism (Sharma et al., 1995; Balestrini & Gamble, 2002; Javalgi et al., 2005; and Shimp & Sharma, 1987) 2) negatively associated with acceptance towards another culture (Javalgi et al, 2005; Howard, 2003; Sharma et al., 1995) 3) negatively associated with foreign travel interest (Nijssen et al., 1999; Mooij, 1997; Litvin et al., 2004; Kelly & Breinlinger, 1995; and Reimer & Kuehn, 2005) 4)

positively associated with group centric feelings (Javalgi et al., 2005; Shimp & Sharma, 1987; Nishina, 1990; Sharma et al., 1995) and 5) positively associated with nationalism (Javalgi et al., 2005; Balestrini & Gamble, 2002; Klein et al., 1998; Sharma et al., 1995). Demographic antecedents related findings are: 1) women are more ethnocentric than male (Klein et al., 1998; Sharma et al., 1995; Shankarmahesh, 2006; Javalgi et al., 2005; and Bruning, 1997) 2) highly educated people are less ethnocentric (Klein et al., 1998; Sharma et al., 1995; Shankarmahesh, 2006; Javalgi et al., 2005; Bruning, 1997) 3) increased income reduces ethnocentric tendencies (Klein et al., 1998; Sharma et al., 1995; Shankarmahesh, 2006; Javalgi et al., 2005; Bruning, 1997), 4) Dogmatism is positively associated with consumer ethnocentrism (Caruana, 1996; and Etzel & Walkar, 2005) and 5) Upper social class people are less ethnocentric (Caruana, 1996). Thus, a highly ethnocentric consumer probably be an older consumer with low income, lower education level and preferably be women from lower social class. The concept of ethnocentrism is anchored in the belief that one's own group (the in-group) is superior to other groups (out-groups) (Adorno et al. 1950). This concept represents superiority acceptance of culturally identical views and ideas while rejecting culturally dissimilar ideas or people (Shimp et al, 1987; Netemeyer et al, 1991) and culturally linked products. Ethnocentrism involves a dual form of judgment where one's own group is evaluated positively while some other groups are evaluated negatively (Chang & Ritter, 1976). Ethnocentric individuals tend to be rigid in their acceptance of the culturally 'alike' and rejection of the 'unlike' (Adorno et al. 1950). They view other societies as "abnormal" and "inferior" and the activities of out-groups as contemptible, immoral, inferior (Chang & Ritter, 1976; Lanternari, 1980; Levine & Campbell, 1972; Schompmeyer & Fisher, 1993).

### ***Dual-Ethnocentrism:***

In the preceding section, the notion of consumer ethnocentrism is articulated. It is described that consumer ethnocentrism is a belief of superiority that is biased towards home country with which a person is culturally and ethnically linked (Shimp and Sharma, 1987). An ethnocentric consumer favors home country offerings superior to other similar alternatives available from other

countries (Cleveland et al., 2015a). For example, an Indian ethnocentric consumer will consider an Indian mobile brand superior to other similar alternatives available in the market from other countries. However, dual-ethnocentric consumers have two country affiliations. One is their home country with which they are ethnically and culturally linked due to birth and grown up; with whom they have many nostalgic associations and attachments. The other is the host country, their present country of living with home they are associated for quite a time due to their work and stay. For example, a person born and grow in country 'X' and later became citizen of India, in such circumstances country 'X' is his/her home country and India is his/her host country and the associated ethnocentric feeling will possibly dual in nature.

### ***Ethnocentrism and purchase intention:***

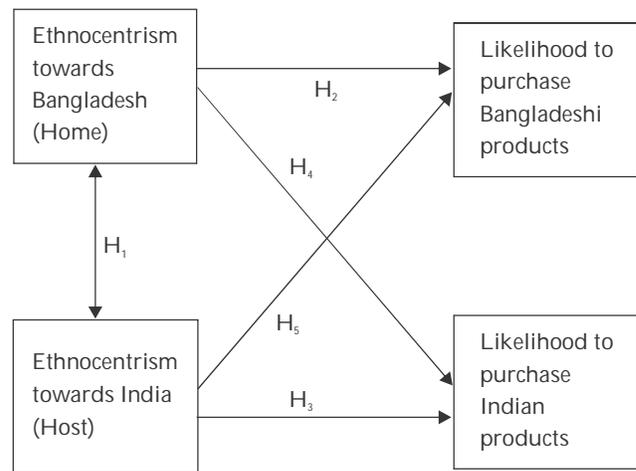
Measuring the level of consumer ethnocentrism across countries is of interest to multinational companies because it facilitates marketing strategies in foreign countries such as developing product-positioning strategies in overseas markets by assessing the bias toward domestic products (Cateora, 2002). According to Bilkey & Nes (1982), one of the biases among consumers is that products manufactured in their country of origin are better than alternatives from other countries. They further note that this bias can be carried over to real evaluations leading to consumer ethnocentrism. Consumers who have this notion in themselves are perceived to be ethnocentric and are more likely to emphasize the positive aspects of domestic products while non-ethnocentric consumers would be more pragmatic and evaluate products in relative terms (Caruana & Magri, 1996). A person with high ethnocentric tendency tends to buy domestic products over the imported one and Klein et al (1998) stated that ethnocentric consumers do this due to the belief that products made in their country are superior. Investigations by Suh & Kwon (2002) concluded that consumer ethnocentrism is an important factor in determining the magnitude of reluctance in the purchases of imported products. The various causes of ethnocentrism include nationalism (Han, 1988), xenophobia, national or racial superiority (Adorno et al, 1950), animosity (Klein et al 1995), and a feeling of immorality (Shimp & Sharma, 1987) leading to conclusion that consumers choose domestic products over foreign

products when they are identical on all other respects, because of prejudice against foreign products (Sharma, Shimp & Shin 1995). Consumer ethnocentrism is a reflection of the view that foreign products are amoral, unpatriotic and has a negative impact on the domestic economy (Cutura, 2006). Ethnocentric tendency of consumers are negatively correlated to attitudes towards imported products and positively correlated to attitude towards domestic products (Sharma et al, 1995). Ethnocentric consumers take in to consideration the effects on the domestic economy while evaluating imported products (Shimp & Sharma, 1987). On the contrary, non-ethnocentric consumers do not take into consideration the place where the products have come from. They evaluate products based on their functional characteristics (Cutura, 2006). Though a comprehensive review of literature suggests that impact of ethnocentrism on perceived quality of products is not very consistent, study carried out by Shimp and Sharma (1987) confirms that ethnocentrism influences the product quality perception of U. S. consumers. Kesic et al. (2004) confirms that in case of Croatian and Bosnia and Herzegovina consumers, there is a strong relationship between ethnocentrism and intention to buy domestic products. Apart from that, some recent studies like Banna et al. (2018); Cleveland et al. (2015a, 2015b); Das and Mukherjee (2019) also confirmed the impact of ethnocentrism on purchase intension.

The above discussion indicates that, consumer ethnocentrism impacts purchase intension of domestic and imported items and brands. In the introduction section, it was already articulated that, the case might be true for dual ethnocentrism also. However, since they have dual-ethnocentric affiliation, it is not clear how their ethnocentric biasness will work if the products under consideration are from their home and host countries i.e., the country with whom they were ethnically and culturally linked due to birth and grow-up and the country of their present affiliation due to stay and work. Present study intends to measure this phenomenon.

To solve the above research question, the below conceptual model given in Figure 1 is designed and proposed to be empirically tested.

Figure 1: Conceptual model for testing



Source: Author's preparation.

**Hypotheses Development:**

This section of the study will develop the relevant hypotheses based on the literature review articulated in the previous section.

For a dual ethnocentric person, both home and host country carries significance. Home country is due to the nostalgic association since childhood and for host country, it is due to their present affiliation and status associated with the host country. Thus, it can be hypothesized that,

H<sub>1</sub>: For dual ethnocentric consumers, ethnocentric tendencies for home country as well as for host country will have a strong positive association.

Again, it was discussed in the literature review section that high ethnocentric people shows product superiority biasness towards the country in which they work and stay i.e., their host country (Banna et al., 2018). However, if the other country in comparison is their home country they may give more biased preference for home country affiliated products over host. This is because, in such situation emotional attachment since childhood with home country may propel them to become biased towards home country alternatives. This indicates that which origin product a dual ethnocentric consumer will prefer depends on his associated ethnocentrism tendency towards home and host country. Thus, it is hypothesized that,

H<sub>2</sub>: Dual-ethnocentric consumers having higher ethnocentric tendency towards home country will have a positive tendency towards purchasing home country affiliated products.

H<sub>3</sub>: Dual-ethnocentric consumers having higher ethnocentric tendency towards host country will have a positive tendency towards purchasing host country affiliated products.

Again, an ethnocentric person tends to buy domestic products over the imported one (Klein et al 1998; Cleveland et al., 2015a). This is due to the belief that products made in their own country are superior over other foreign alternatives. In case of a dual ethnocentric consumer with strong ethnocentric feeling and emotion for home country, he/she can be completely biased towards his home country offerings over the similar host country alternatives. However, findings related to ethnocentric tendency impact on 'other' country offerings is somehow inconsistent. Available literature in this parlance had identified all the three possible associations i.e., negative association with 'other' country offerings, indifferent association with 'other' country offerings as well as positive association with 'other' country offerings though the strength of association is high for domestic country over the 'other' countries (Yelkur et.al, 2006; Chrysochoidis et al.; 2007; Nguyen, et al., 2008; Evanschitzky, et al., 2008; Ranjbairn, et al.; 2011). Thus, in case of dual-ethnocentric consumer, since such consumer have affiliation for both home and host country offerings, it is hypothesized that,

H<sub>4</sub>: Dual-ethnocentric consumers with higher ethnocentric tendency towards home country will exhibit either indifferent or positive tendency to purchase host country products.

H<sub>5</sub>: Dual-ethnocentric consumers with higher ethnocentric tendency towards host country may exhibit a positive inclination towards purchasing home country products.

## Research Methodology

### Sample and sampling design:

In the introduction section, it was highlighted that mass migration from East Pakistan (now Bangladesh) to India

had happened in the year 1971. Hence, the sample frame consists of all those Bengali Hindu people who migrated in India (Tripura) during the period of 1971-1980. One screening question was asked to each potential respondent: what was his/her age during migration from West Pakistan (now Bangladesh) to India. Only those respondents are included as sample who during migration time was above 15 years of age. Above 15 years was considered because they can remember ethnic and cultural memories associated with their home country- a must for formation of ethnocentric feelings. Accordingly, 297 such samples are selected for this study. Non-probability purposive sampling design was used for sample inclusion. Snowball sampling technique is adopted for selecting the samples. Every qualified sample was asked whether they know another who migrated from East Pakistan (now Bangladesh) during the period of 1971-1980. This reference was used while contacting the next sample for data collection purpose and the process continued for selection of all 297 samples. The representation of male in the sample was 50.1% (149) and female comprised of 49.9% (148).

### Measurement Instrument:

By far, CETSCALE (Shimp and Sharma, 1987) is the most influential instrument in measuring consumers' ethnocentric tendencies across cultures/nations (Nguyen, Nguyen and Barrett, 2008). CETSCALE comprises of 17 likert items, which identify the consumer's attitudinal and behavioral orientations towards purchase of imported and homemade products. Though many consumer researchers cautioned to provide an accurate assessment of the CETSCALE's psychometric properties, strong support for the scale's psychometric properties across four different Western countries, viz., the USA, France, Japan and Germany were found by Netemeyer et al.(1991) as well as other multiple research. A four item tested and validated version of the original CETSCALE is popularly used in multiple researches (Cleveland et al., 2009; Banna et al., 2018) to measure ethnocentric tendencies. Present research used the four-item version of the CETSCALE to measure ethnocentric tendency of the selected samples. Likelihood to purchase is measured by the Papadopoulos, Heslop & Ikon Research Group (2000) purchase likelihood scale (Banna et al., 2018) which is also validated and used

by Knight & Calantone (2000), Heslop et al. (2004), Papadopoulos et al. (2008) and Banna et al. (2018).

**Data collection:**

Since, the study is cross-sectional in nature, one to one survey method was employed for data collection. Survey was backed by the standard questionnaire that consists of the four-item version of CETSCALE to measure both Indian and Bangladeshi ethnocentrism tendencies, and likelihood to purchase Indian as well as Bangladeshi products. The survey questionnaire was translated into Bengali language for data collection due to higher proficiency of Bengali language among the targeted sample group. All the items are measured in a seven point likert scale format where '1' represents the notion of "strongly disagree" and '7' represents "Strongly agree". The collected data are coded appropriately for analyses purpose.

**Data analyses and results:**

Since, the study intends to measure the existence of dual-ethnocentrism, structural equation modeling is used in AMOS (v.22) linking the data collected for Bangladeshi ethnocentrism (home country), Indian ethnocentrism (host country), likelihood to purchase Indian products and likelihood to purchase Bangladeshi products. One sample 'T' test is used to evaluate whether there is any significant difference of ethnocentric tendencies towards Bangladesh and India amongst the selected samples.

**Model fit analyses:** The associated values of factor loading, composite reliability (CR) and average variance extracted (AVE) for the constructs are given below in Table 1.

**Table 1: Factor Loadings, AVE and CR**

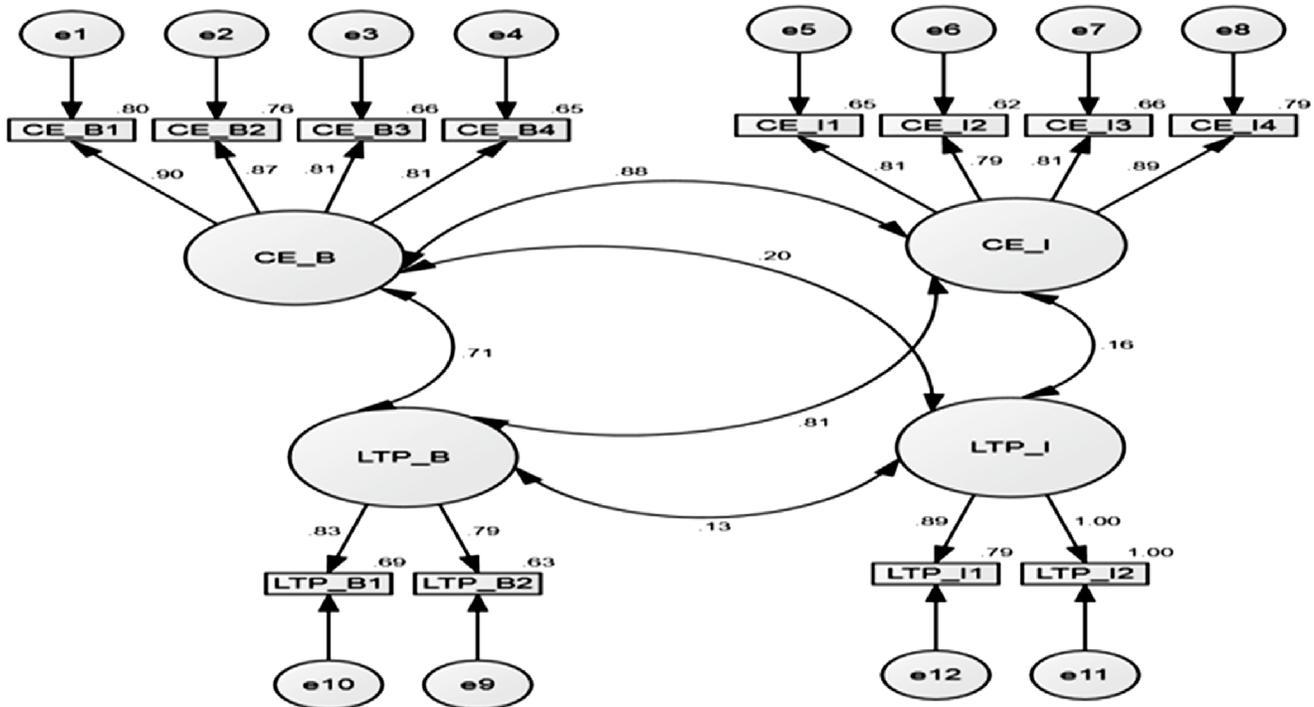
Constructs	Factor Loading	AVE	CR
<b>1. Bangladeshi Ethnocentrism (CE_B)</b>			
Buying foreign products puts workers out of work (CE_B1)	.897	.716	.789
A real Bangladeshi should buy Bangladeshi products only (CE_B2)	.869		
Buy Bangladeshi and don't let others get reach out of Bangladesh (CE_B3)	.905		
A real Bangladeshi should not buy foreign goods as it hurts the economy of Bangladesh (CE_B4)	.877		
<b>2. Indian ethnocentrism (CE_I)</b>			
Buying foreign products puts workers out of work (CE_I1)	.808	.681	.772
A real Indian should buy Indian products only (CE_I2)	.789		
Buy Indian and don't let others get reach out of India (CE_I3)	.813		
A real Indian should not buy foreign goods as it hurts the economy of India (CE_I4)	.888		
<b>3. Likelihood to purchase Bangladeshi products (LTP_B)</b>			
I am willing to try Bangladeshi products (LTP_B1)	.829	.656	.692
I am willing to buy Bangladeshi products (LTP_B2)	.791		
<b>4. Likelihood to purchase Indian products (LTP_I)</b>			
I am willing to try Indian products (LTP_I1)	.891	.896	.808
I am willing to buy Indian products (LTP_I2)	1		

Source: Author's calculation for 297 samples

All the variables load significantly as the factor loading of the variables are in the range of .789-1 which is above the standard value of .7 (Hu & Bentler, 1995; Kline, 1998; Marsh et al., 1988). The value of AVE is also in the range of .656-.896, which is pretty good as per the prescribed standard of

.5 (Fornell & Larcker, 1981). The reliability values of the constructs are also in the range of .692-.808, which is quite acceptable against the standard value of .7 (Nunnally, 1978). The construct testing model is given in Figure 2.

Figure 2: Construct Testing Model



Source: Author’s own preparation.

The model fit indices are observed as  $\chi^2 / DF = 2.86$ , GFI= .925, AGFI=.879, PGFI= .569, NFI=.950, IFI=.967, CFI= .967, PCFI= .703, RMSEA=.079. The parsimony adjusted goodness of fit value (.569) is above the standard accepted value of .5 (Byrne, 2001). All the values of RMSEA, GFI, AGFI, and CFI are within or above the desired permissible limit (Hu & Bentler, 1995; Kline, 1998; Marsh et al., 1988) as identified by multiple studies. Root mean square of approximation is one of the vital statistics to assess whether the hypothesized model fits the data properly or not (Byrne, 2001) and the RMSEA value of .079 indicates a good fit for the data. Though there are multiple arguments regarding the appropriateness of the fit values associated with structural models (Bagozzi & Yi, 2012; Hooper et al.,

2008), the achieved values for this model indicates a good fit for the constructs and the model.

**Hypotheses testing:**

Five hypotheses were constructed in the hypotheses development section for dual ethnocentric consumers: 1) ethnocentric tendencies towards Bangladesh (home country) and India (host country) will have a positive significant association for dual-ethnocentric consumers, 2) higher ethnocentrism towards Bangladesh (home country) will have a positive likelihood to buy Bangladeshi products, 3) higher ethnocentrism towards India (host country) will have a positive likelihood to buy Indian products, 4) higher ethnocentrism towards Bangladesh (home country) will have negative impact towards

likelihood to buy Indian products, and 5) higher ethnocentrism towards India (host country) will have a positive likelihood to buy Bangladeshi products. The analyses yielded a significant positive association amongst ethnocentric tendencies towards Bangladesh and India (CE\_B-CE\_I=.88, p=.001) by the dual-ethnocentric consumers and thus accepting H1 for this study. Also, a significant positive association amongst ethnocentric feeling towards Bangladesh and likelihood to purchase Bangladeshi products (CE\_B-LTP\_B=.714, p=.001) confirmed the acceptability of H2. Analyses also reported a significant positive association of ethnocentric feeling towards Bangladesh and likelihood to buy Indian products (CE\_B-LTP\_I=.2, p=.001) indicating the acceptance of H4. It means dual ethnocentric Bangladeshi immigrant consumers also evaluate Indian (host country) products positively. This acceptance of hypothesis H4 also indicates that irrespective of dual-ethnocentric consumers' high ethnocentric feeling towards home country (Bangladesh), they do not evaluate host country ( India) products negatively since host country is their present destination of stay and work. Study also reported a significant positive

association of ethnocentric feeling towards India and likelihood to buy Bangladeshi products (CE\_B-LTP\_B=.81, p=.001) for dual ethnocentric consumers which means H5 is also accepted. Again, a significant positive association amongst ethnocentric feeling towards India and likelihood to buy Indian products (CE\_I-LTP\_I=.16, p=.009) by the dual-ethnocentric consumers confirmed the acceptance of H3. Thus for consumers migrated from Bangladesh to India during 1971-1980, ethnocentric tendency towards India and Bangladesh associates positively as well as their tendency to purchase both Bangladeshi and Indian products are high.

**Strength of ethnocentric association:**

One sample 'T' test observed the ethnocentrism strength associated with India and Bangladesh for the samples. The mean score of ethnocentric tendency for Bangladesh and India was observed as 4.90 and 4.95 respectively. The Bangladeshi ethnocentrism's mean score is considered as standard 'T' value for one sample T test. The analysis result is given below in Table 2.

**Table 2: One sample 'T' test for assessing associated ethnocentrism strength**

Construct	T	df	Sig (2-tailed)	Mean Difference	95% confidence interval of the Difference	
					Upper	Lower
*Mean_I	.648	297	.518	.052	-.1061	.2101

\*Mean\_I = Mean ethnocentric score for India

Source: Author's calculation.

Test statistics reveals that though the mean ethnocentric score for India is slightly (.052) higher than the mean Bangladeshi ethnocentrism score, the mean difference is not significant (t=.648 & p=.518) which equals ethnocentric feeling towards both the countries by the samples.

**Findings, Discussion and Implications**

**Findings:**

Some of the significant findings are obtained from the analyses are formulated below:

1. There exists a significant positive association between the ethnocentric feelings associated with Bangladesh

(home country) and the India (host country) for the dual-ethnocentric consumers migrated from Bangladesh to India. The difference in the feeling of ethnocentrism towards home and host country is not significantly different for dual ethnocentric consumers. It means consumers who migrated from Bangladesh to India during Bangladesh liberation war, their ethnocentric feeling towards both home and host country is almost equally strong.

2. Dual-ethnocentric consumers' ethnocentric tendency towards Bangladesh (home country) has a significant positive association with the purchase likelihood of

Bangladeshi products.

3. Dual-ethnocentric consumers' ethnocentric tendency towards India (host country) has a significant positive association with the purchase likelihood of Indian products.
4. Ethnocentric tendency towards Bangladesh (home country) exhibited by the dual-ethnocentric consumers has a strong significant positive association with the purchase likelihood tendency of Indian products.
5. Ethnocentric tendency towards India (host country) exhibited by the dual ethnocentric consumers has a significant positive association with the purchase likelihood tendency of Bangladeshi products.

### ***Discussion and Implications:***

Analyses obtained from this study indicated a significant positive association amongst Indian (host) and Bangladeshi (home) ethnocentric tendencies with no significant difference among mean ethnocentric scores of the two countries for the consumers migrated from Bangladesh to India during Bangladesh liberation war. This finding supports the notion of dual-ethnocentrism as identified by Banna et al. (2018). The results also validate the fact that for dual-ethnocentric consumers, ethnocentric feelings have a strong influence on purchase likelihood of products from both home and host countries. It is also observed that dual-ethnocentric consumers evaluate both home and host country products positively. Their purchase likelihood for products from both the home and host country is positive. Interestingly, analyses of the strength of association reveals that purchase likelihood of Bangladeshi (home country) products is comparatively more than that of the Indian (host country) products for dual ethnocentric consumers irrespective of their ethnocentric feelings towards each country. From the context of this study, host country is more advanced than that of home country in most parameters like technological advancements, innovation, quality, sophisticated design, industrialization, and economic as well as other demographic indicators. From rational point of view, host country products should enjoy superior status over home country products. However, this phenomenon is not correct in situations where dual-ethnocentrism is at work. Irrespective of superior image of the host country

products, it is actually the home country products that enjoy high purchase likelihood over their host country counterparts for dual ethnocentric consumers. Subsequently, it also indicates that irrespective of equal home and host country ethnocentrism feeling, dual-ethnocentric consumers behave irrationally in their purchase decision when home country affiliated alternative products are available. This may be because, along with ethnocentrism towards home country, other affective feelings like nostalgia, emotional attachments with home country is at play while shaping dual ethnocentric consumers purchase intention. Since, home country ethnocentrism is linked with ethnicity and cultural norms of home country, it can also be concluded that ethnicity and cultural norms of the birth and grow-up place play an important role in shaping purchase likelihood of dual-ethnocentric consumers.

This study will have some theoretical as well as practical implications. A theoretical implication of this study is confirming the existence of dual-ethnocentrism. Until now, every research in the parlance of ethnocentrism viewed this construct from one's country of dwelling perspective. It is viewed as the measure of unsympathetic feelings towards overseas country in general and product offerings from the foreign countries in particular (Cannon & Yaprak, 2002). It is also viewed as the measure of economic and cultural threat for one nation in the form of incorporating global and foreign products and brands (Cleveland et al., 2009). However, the notion of dual-ethnocentrism will open a new dimension to evaluate the phenomenon of ethnocentrism and its impact on purchase tendency. It indicates that nostalgic feelings and affections towards home country is more powerful factor in shaping home country ethnocentric feelings as well as purchase intentions.

Practical implications for this study lies in the utilization of ethnocentrism concept in international marketing strategy and branding context. For decades, ethnocentrism is one of the most used marketing techniques for the multinationals. This notion of dual-ethnocentrism will open a new dimension to revisit the marketing application of this construct. For example, prior understanding of dual ethnocentrism, a Bangladeshi multinational interested to market its offering towards Bangladeshi-Indian may

hesitate to use the tag 'MADE IN BANGLADESH' for their brands due to the fact that high ethnocentric tendency towards Indian products and superior product quality can create a negative impact for using this appeal. But this study confirms that for Bangladeshi-Indian, using 'MADE IN BANGLADESH' is perhaps one of the most effective strategies to gain instant acceptance and purchase likelihood. It will also help the brand to establish itself as the most eligible alternative among all including Indian alternatives amongst Bangladeshi-Indian's. This phenomenon may also hold true for other such ethnic groups where the notion of dual-ethnocentrism prevails.

### Conclusions and Future Research

To conclude, the main contribution of this study is confirmation of the construct 'dual-ethnocentrism' and its possible implications in purchase behaviour of such consumers. Though no significant difference in home and host country specific ethnocentric tendency for dual ethnocentric consumers is the outcome, this research confirms that dual ethnocentric consumers tend to affiliate home country products over host country alternatives irrespective of their reputation. Ethnocentric feelings towards home country generates more affection towards home country offerings compared to host country leading to increased purchase likelihood.

Building theory requires more and more empirical evidences in support of that theory. Concept of dual-ethnocentrism is one such phenomenon and requires more evidences in support of this phenomenon, which is also one of the future directions for this work. Another direction is to investigate the dual-ethnocentrism concept in the light of a third nation, which is neither a home nor a host country for the consumers, and to understand the possible purchase likelihood scenario. Since the concept is new, it is also desirable to evaluate the antecedents and consequences of dual-ethnocentrism in purchase context. Dual-ethnocentrism as a construct is linked with ethnicity and culture; hence, another important area of study can be to evaluate the situation of dual ethnocentrism in connection with acculturation pattern and global consumer culture. The purchase evaluation in this study is general in nature rather than product and category specific. Thus, product and category specific purchase impact of dual-ethnocentrism can be another future course of study.

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# Balancing Income and Customer Satisfaction: A Case of Sterling Bank

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## Abstract

Income of a bank consists of interest income, source of which is loans and non-interest income consisting of all other income apart from interest income. Sale of third-party products (insurance, mutual fund) is a major source of non-interest income as the banks earn fee based income from it. To augment this income banks aggressively market these products. The present case relates to Sterling bank which also pursued this strategy of marketing third party products as it handsomely contributed to its earnings. This aggressive marketing coupled with incentive offered to its staff lead to widespread mis-selling of these products. The management realized that aggressive selling of insurance and mutual fund products was leading to customer dissatisfaction resulting to customer complaints and even legal action by them. The management had a daunting task of balancing earnings and curbing mis-selling of third-party products.

**Keywords:** Third party products, Non-Interest Income, Mis-selling

## Introduction

Mr. Ashok Das General Manager (Customer Excellence) of Sterling bank was reading yet another customer complaint regarding mis-selling of third-party products by bank's staff. The present complaint related to Mr. Om Prakash Gupta, customer of Bahadur Shah Zafar branch of Sterling bank. Mr. Gupta aged 77 years is having pension account with the branch. Mr. Gupta was approached by Mr. Ashish Pandey for canvassing of mutual fund under special login mahotsav organized by the bank. Mr. Pandey convinced Mr. Gupta for investing in a particular mutual fund scheme assuring a return of more than twenty percent considering past performance of the scheme for last five years. Mr. Pandey coaxed Mr. Gupta to prematurely withdraw all his fixed deposits in the bank and invest in this particular scheme. After about six months, Mr. Gupta was in urgent need of money as his wife was hospitalized for a medical emergency. Mr. Gupta wanted to redeem his investment but the value of investment

had eroded by almost thirty-five percent instead of growth of twenty percent as assured by the marketing officer. Mr. Gupta quoted the words of Mr. Pandey in his complaint with regard to the returns as assured by him, for which Mr. Pandey replied "Nobody even God can guarantee returns in a mutual fund scheme and he has to either wait for market conditions to improve or settle for the present value". Mr. Gupta approached the branch manager for resolution of his problem who in turn blamed him for investing in a mutual fund scheme without understanding the nitty gritty of the product. Mr. Gupta had no option left and had to complain to head office of the bank which were

dealt by the customer excellence department headed by Mr. Das. The situation with regard to sale of insurance products was no better which was also plagued by rampant mis-selling.

**A brief profile of Sterling bank:** Sterling bank is a leading private sector bank established in the year 1972 by a group of six gujrati businessmen in Ahemdabad. It made rapid progress, starting from one branch it went on rapid expansion spree now it has a branch network of over 3500 branches, 3542 to be precise as on 31st march 2017. The went public and was listed on sensx in the year 1982, making a record as its issues was oversubscribed 62 times on account of its brand image and growth potential. Sterling bank has tie ups with eight leading mutual fund companies and one life insurer "Just Life" and with "Supreme General" for non-life insurance. These third-party products are a good source of fee based income contributing handsomely to the non-interest income of the bank as evident from the figures of the bank for last five years.

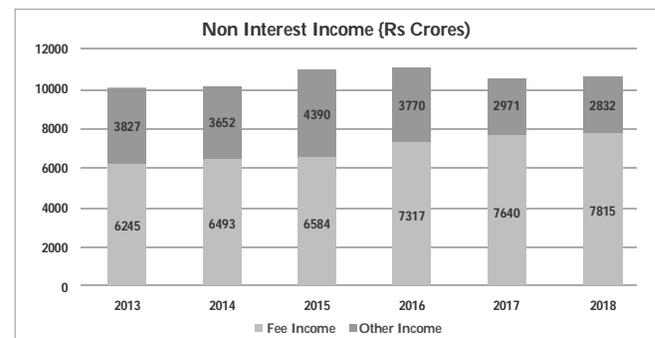


Figure 1 : Contribution of fee-based income in non-interest income of the bank

But the bank was also experiencing customer dissatisfaction with regard to selling of third-party products as there was increase in customer complaints with regard to these products. Customers have approached not only the bank but also Banking Ombudsman, IRDA (Insurance Regulatory and Development Authority) consumer forum and filed suits against the bank throughout the country. The aggressive selling of third-party products is now impacting the image of the bank as evident from findings of recently conducted a customer satisfaction survey through marketing research agency, "Avon Marketing". The agency in its findings reported that 78% of customer surveyed expressed their dissatisfaction with regard to selling of insurance and mutual fund products.

### Problem

The bank in order to boost its NII (Non-Interest Income) is aggressively marketing third party products which is well complimented by its channel partners. These companies issued distinct marketing codes to identified marketing staff in each branch and offered incentives according to business generated under the code. The bank along with its third-party partners launch special campaigns like login day, login fortnight to push business volumes. The winners of these campaigns were rewarded with gift vouchers, domestic and foreign trips christened as study tours to avoid action by the regulators. The branches were aggressively monitored by the marketing chief at the regional offices of the bank. The aggressive marketing strategy adopted for sale of these products was leading to mis-selling across the bank as evident from few of instances quoted below.

The marketing staff during disbursement of agriculture loans prompted gullible farmers for investing in ULIP (Unit Linked Insurance policy) as single premium product when they expressed their inability to pay regular premiums. One such farmer, Mr. Kewalram complained to the bank that he was told that the amount is being invested in a bank's fixed deposit, lock in period for which is three years after which he would get good returns. After three years when he approached the branch he was told that the amount was invested in insurance policy which was terminated for nonpayment of regular premiums. When he enquired about the marketing officer who sold that policy,

he was told that he had left the bank and joined somewhere else whereas the said official was transferred to another branch at different centre of the bank.

Some other tactics adopted by the bank's staff was promising guaranteed returns in case of insurance and mutual fund schemes. To substantiate their claims, the staff exhibited the past performance to lure potential customers.

The customer profile data of the bank's customers was being shared with third party product partners, the staff of who called the customers on behalf of the bank. Data like average balance, salary details, employment details, address, mobile number etc. were passed on to channel partner employees for targeting potential customers.

The marketing staff of the bank and its tie-up partners ignored customer profile while selling these products. To prove a point, in present complaint of Mr. Om Prakash Gupta he was offered 100% equity ignoring his risk profile. In other instances, age, risk profile, investment objectives were ignored for investment in high incentive and according to promotional campaigns for particular products.

The other method adopted by the bank's staff was making subscription in third party products as prerequisite for sanction of loans to customers. The staff astutely assessed loan eligibility less than the customer's requirement and when the customers insisted for higher amount, the staff use to propose this condition of purchasing these products. The rationale for this as explained to customers was that it is a measure of strengthening the credit proposal for sanctioning higher amount than the eligible amount which in fact was a fallacy. Another related method was in case of issuing lockers facility to customers, subscription of third-party products was made mandatory. When the customers objected, they were told that all the lockers are rented out and there is waiting for it and to get preference they have to subscribe to these products.

The post sales services offered was also not up to the mark as the products were marketed with the single objective of sales conversion, often neglecting post sales issues.

The terms and condition of the product pitched are not communicated to the customers. For example, Mr. Deepak Agarwal of TT Nagar branch at Bhopal approached insurance company for claim of his car that met with an

accident, was told that he has to contribute 25% of claim amount as margin, which was never disclosed by the bank staff. If the customers while availing policy wanted to read the offer document, they were told that the product is best in the market and their authentication on the policy form is a mere formality. Later during claim finer details on which the customers had authenticated were pointed to them.

One another strategy adopted by the bank’s staff was selling these products as part of banking product offering like mandatory life insurance as part of Sterling home loan. The customers were told that that home loan cannot be availed without subscribing to the life insurance policy.

The other method of enticing customers who came to invest in fixed deposit were told that that investing in fixed deposit and recurring deposits was out of fashion mostly preferred by traditional customers. When Mr. Ashutosh Kumar holding salary account with Gomti Nagar branch in Lucknow wanted to invest Rs 5 lakhs in fixed deposit was coerced by one of the marketing staff, Mr. Rakesh Sagar to invest in mutual fund. Mr. Sagar did this by saying, “Investing in fixed deposit is out of vogue, mostly preferred by orthodox customers and not suitable to customers like him.” When Mr. Kumar enquired about the riskiness of the product Mr. Sagar quoted his own experience of investing for past two years, assuring him of handsome returns which he himself got from investing. He further continued, “Fixed deposits and recurring deposits are now mostly preferred by illiterates and not modish customers like you”

There are other tactics adopted, like when the marketing officer was not able to convince the customer to invest in third party products, he was told to meet the branch manager for better understanding of these products. The branch manager who along with the marketing staff was given stiff targets for sale of these products used all hook and crook from flattering to use of his position for coaxing the customer to invest in third- party products.

The customers are lured to invest in new ULIPS and mutual funds by touting them as cheap which are available at low NAV. For instance, one of the customers of the bank, Mr. R K Agarwal was told that it would be beneficial to invest in recently launched “Giant” scheme of mutual fund as it is available at NAV of just Rs 10 whilst other schemes are available at higher NAV. He was told that it is wise to

invest at lower NAV as it has potential to deliver higher returns as compared to other schemes having higher NAV. This being a myth as all schemes of mutual fund / ULIP are launched at NAV of Rs 10 only. Thus, customers were persuaded to invest in these new products instead of old schemes having proven track record from other companies.

The bank soon realized that this aggressive marketing of third -party products was impacting the brand image as the no. of complaints and result of the survey were confirming to this fact.



Figure 2: Customer complaints analysis for the financial year 2017-2018

**Conclusion**

On that very same day on which he read Mr. Gupta’s complaint, Mr. Das t was having dinner with his family, his father having savings account with Nariman point branch of Sterling bank told that he had received a call from the branch. When Mr. Das enquired about the same his father told that his fixed deposits are about to mature in three days and the bank’s staff told that he could invest the proceeds in a product which is offering a better return than on a fixed deposit offered by the bank. When Mr. Das (Senior) probed further, the bank staff told that it is a ULIP plan, which would nearly double the amount in less than three years. After which senior Das said that he shall discuss the same with his son and let them know later, without even hinting about his son’s position in the bank.

After listening to his father’s narrative, the complaint of Mr. Gupta came before his eyes and now he understood his plight even better. He knew that he has to curb the rampant mis-selling prevalent in the bank without impacting the earnings of the bank. He knew that it is herculean task but after listening to what his father told, his resolution to solve

this issue grew stronger.

### Managerial Implications

Sale of third-party products is good source of non-interest income which contributes directly to the bottom line of the banks. It is for this very reason that banks aggressively market these products. Banks adopt a number of strategies like branding, advertising, special campaigns, incentives, assigning stiff target for sales to staff, to name a few. These measures can lead to mis-selling of these products. The very step to augment income may back fire on account of customer dissatisfaction. The bank must pay heed to customer feedback as it unearths any flaws in strategy formulation and its implementation based on which it has to adapt its strategy. So, banks have to plan implement these strategies with care ensuring balance between income and customer satisfaction.

### Teaching Plan

Following are the questions or issues can be used for discussion of the case.

A. Identify the main issues in the case (15 minutes)

The main issue of this case is mis-selling, which manifests in the form of poor customer selection, lack of transparency in sale of third party products (hiding of vital information) and imperfect complaint resolution mechanism. The other minor issues of this case are customer satisfaction, grievance handling, customer need identification and service delivery to name a few.

B. What corrective measures should the bank undertake to curb mis-selling of third part products?

There are number of steps which the bank undertake to curb mis-selling of third part products which are-

- I. Training of marketing staff- Sale of third party products like insurance and mutual fund requires specific skills which could be imparted through specialized training encompassing all aspects including risk involved in different class of investments.
- II. Customer Selection- Improper customer selection is a major reason for mis-selling of these products, for

which the bank has to ensure product delivery according to needs and profile of the customers. Training coupled with data analytics can play an important role in it.

- III. Specialization- As mentioned earlier sale of third party products special skills , the bank could consider setting up a separate division consisting of staff having right skills and background for it,
  - IV. Reward System- The commission earned through the sale of third part products can be credited to branch profit and loss account instead of giving it to individual staff. The business generated by individual could be reckoned for promotion and other benefits.
- C. How sterling bank can increase its income without compromising on customer satisfaction? (30 minutes)
- I. The first step that the bank has to undertake is curbing rampant mis-selling of third party products which is negatively impacting its brand image.
  - II. Bank cannot ignore fee based income as its contributes directly to the bottom line of the bank hence it has to undertake measures mentioned above for curbing malpractices with regard to sale of these products.
  - III. The bank could explore to augment its income by increasing its non-fund based business like BG's and LC's ( Bank Guarantee and Letter of Credit)
  - IV. The bank could also increase its income by reducing its cost of funds by increasing CASA (Current accounts and Savings Account) which are cheaper sources of funds which could be deployed for lending to borrowers.

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