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Research Papers

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From the Editor's Desk ...

Welcome to 2020! A new year marks a new beginning, new possibilities, new adventures, and new research opportunities. This journal was launched in 2011 to promote and exchange management information among budding researchers.

I would like to express my deepest appreciation to you, our valuable authors, reviewers, and readers, for your contributions, service, and interest in our PJMTR Journal.

This New Year issue brings in a mixed bag of research papers in the area of stock markets, women buying behavior, conspicuous consumption, social entrepreneurship and use of mobile apps.

The first paper emphasizes the impact of macroeconomic variables on the NSE Nifty Index of the National Stock Exchange. This study investigated seven macro-economic variables that influenced NSE. To know more about these macroeconomic variables, do read the research paper.

Television advertisements affect consumer buying behavior. The second paper has examined the effect of TV ads on women buying behavior of readymade apparel. This research has brought out interesting findings on the role of TV ads in highlighting the latest trends in readymade garments.

People living on low income tend to spend a higher percentage of their income on products and services perceived to have high status (conspicuous consumption). The third paper focuses on antecedents that influence the conspicuous consumption of low-income consumers. To explore inter-discipline antecedents that influence conspicuous consumption, read it to know it.

Social Entrepreneurship is the new business as they alleviate social problems. This fourth paper gives insights into social entrepreneurship and challenges faced in developing social entrepreneurship in Asia.

The number of mobile users today is greater than the number of desktop users. Apps can track and observe user engagement. The last paper is on the use of mobile apps by postgraduates. This paper makes an effort to identify the various mobile apps used by postgraduate students.

I hope you enjoy this issue of PJMTR and we look forward to your articles & research papers.

Happy reading and good luck!

Chief Editor

Dr. R. Venkataraman

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Do the Macros have an Impact on Stock Markets: Investigation After Incorporating Structural Breaks

Rakesh Shahani*, Prashant Singh** & Vijay Swami***

Abstract

The present study attempts to empirically investigate the impact of seven macro-economic variables namely Index of Industrial Production, Wholesale Price Index, Yield on 10 year Government Bond, Money Supply (M1), Foreign Exchange Rates, Gold & Crude Oil Prices on the NSE Nifty Index of the National Stock Exchange. The data used under the study is log-transformed monthly closing prices for these variables for the nineteen years April 2000-March 2019 & methodology adopted is the ARDL Co-integration Model with a single structural break. The paper carries out three diagnostics namely variable stationarity, test for serial correlation and stability. The results of the study as given by Partial 'F' Bounds test show that Co-integration is only established at a 10 % critical level while at a 5 % level no conclusion could be drawn from the results or there is indecisiveness about results. The long-run results showed only two variables namely Index of Industrial Production (IIP) & Money Supply were significant at 5 % & 10 % critical levels respectively. Further, the dummy coefficient representing the break is also significant for NSE Nifty Index. In terms of short-run results four variables namely Crude Oil, Exch. Rate, IIP & Govt. Bond Yield is found to have significant 'p' values. Also, short-run unidirectional causality could be noticed from Crude Oil & Exchange rate to NSE Nifty. Further lagged error correction (ECM) Coefficient was both statistically significant and also negative reflecting backward adjustment towards equilibrium, the time required was approximately 17 months to achieve this equilibrium. ARDL model is also found to be stable, free from autocorrelation while all the variables of the model are either $I(0)$ or $I(1)$ Stationary.

Introduction

The earliest reference of the variables impacting the stock markets could be traced to much celebrated discounting approach to stock valuation (popularly called Dividend Discount Model (DDM)) proposed by Miller and Modigliani (1961) which clearly states that the

current price of stock is nothing but present value of infinite flow of future dividends; but more importantly, future dividends are also a function of how the macro-economic variables are expected to perform. On the other hand, some researcher gives credit for understanding the role of variables which impact the stock

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markets to the seminal research work by Fama(1970) whereby he classified market efficiency into three layers; namely the weak, semi-strong and strong forms.

Then the study of the relationship between economic variables and stock markets got a big boost after the Arbitrage Pricing Theory(APT) was developed by Stephen, R. (1976) where he used few economic variables to explain the movement of the stock markets. He showed in the study on US Markets that term structure changes, industrial production and the risk premium on stocks were positively related to stock returns, inflation was negatively related to these returns.

Coming to the broad factors impacting the stock prices, the list includes all types of corporate information, information on political front, global clues from other major exchanges, policy announcements, movement of other financial markets; like bond markets, currency markets, movement of the commodities including Oil & Gold and even behavioral responses of the investors towards the markets and so on. Amongst these factors, if we isolate factors that are the drivers of the economy like growth rate, interest rates, inflation, we may easily club these together under the broader heading 'macro variables' and determine its impact on the movement of the markets.

A study of macro variables and its impact on markets became a new area of research in the early seventies and a lot of researchers started working in this area with their initial focus on developed stock markets which was later extended to other markets including emerging markets but this was only after a decade (i.e.

from eighties) (Osamwonyi, I. O., &Evbayiro-Osagie, E. I. (2012))Although the interest in this area in the emerging markets has grown quite substantially especially during the last two decades, researchers have found that both risk and return are higher in these markets as compared to developed markets (Harvey, C.R (1995)). Some researchers are of the view that for emerging markets local risk factors are more important than the global factors & therefore macro variables used in developed markets must be used with some caution in these markets (Maysami, R. C., Howe, L. C., & Rahmat, M. A. (2005) Bilson, Brailsford, and Hooper(1999)).

In terms of findings, most of the studies have found a significant relation between macros and stock movements in both developed and emerging markets. Notable researchers who found the significant relation between the two include Osamwonyi, I. O et.al.(2012), Pal, K., & Mittal, R. (2011), Rahman, et.al. (2009), Sohail, N., & Hussain, Z. (2009), Adam, A. M., & Tweneboah, G. (2008), Gan, C., et.al. (2006), Chen et al (2005), Hooker, (2004), Gjerde et. al. (1999) & Fama and French, (1988). On the other hand, studies like Gay, R. D. (2016), etc. found no relation between the macro variables and the stock market return. This may have been primarily due to a few no. of variables taken in their study or taking incorrect proxies for macro variables. The details of some of the prominent research studies are given in tabular format under the review of literature.

Considering the above, an attempt has been made in the present study to determine whether there exists a meaningful relation between macro variables and stock market performance. For this purpose, we have considered seven

macroeconomic variables and these include Index of Industrial Production, Wholesale Price Index, Yield on 10 year Government Bond, Money Supply (M1), Foreign Exchange Rates, Gold & Crude Oil Prices, and the relationship has been tested against the flagship index of the National Stock Exchange of India, the NSE Nifty. The data used for this purpose has been log-transformed monthly closing prices for these variables for the nineteen years April 2000-March 2019. The Model selected for establishing the relation between macros and NSE Nifty is the ARDL Co-integration Model which was developed by (Pesaran and Shin 1999) and was later modified by (Pesaran et.al 2001). The ARDL approach is a single equation model that includes both long term and dynamic interaction between the variables. The model has gained tremendous popularity amongst the researchers on account of advantages it offers over traditional approaches of co-integration. These advantages include firstly unit root pre-testing of variables which is a requirement in most time series models can easily be avoided in case of ARDL as the model can work both with level and first difference stationary variables, secondly, it is a simple OLS based technique which is applied after selecting the appropriate lags, thirdly model is extremely useful in case of small-sized samples as it works with a great efficiency and finally the test also includes the benefits of a VAR Model as it can be applied even if some of the regressors are endogenous (Srinivasan and Prakasam (2014), Sehrawat and Giri(2015), Shahani R, S.Sharma and G.Akriti (2018))

The rest of the paper is structured as follows: Section II gives Literature Review, Section III describes the research objectives of the study, Section IV: gives the Data Description &

sources of data. Section V: discusses the methodology employed including the model pre-requisites & hypothesis to be put under test Section: VI: provides empirical results of the study & its interpretation & finally Section VII: gives the conclusion & policy implications followed by References and Appendices.

Review of Literature

Authors : Gay, R. D. (2016)

Variables : Stock index & two Macro variables; exchange rate & oil

Country : BRIC nations

Period : 1991-2006

Methodology : Box-Jenkins ARIMA model

Results : Exch Rate → Stock Index

Oil → Stock Index of any of the BRIC nations

Authors : Oriwo, A., & Ochieng, D. E. (2012)

Variables : Stock Index,

Interest rate (lending), Inflation & 91 days T-bill rate.

Country : Kenya

Period : March 08 -March 12

Methodology :-

Results : 91D- T.Bill → (-)Stock Index

Inflation → (+)Stock Index

Authors : Osamwonyi, I. O., & Evbayiro-Osagie, E. I. (2012)

Variables : Stock Index, inflation, interest rate, GDP, Money Supply,

Fiscal deficit & foreign exchange rate

Country : Nigeria

Period : Yearly data (1975-2005)

Methodology : Long run co-integration & equilibrium relation using VECM

Results : Inflation → (+)Stock Index

GDP → (+)Stock Index

Forex → (+)Stock Index

MS → (+)Stock Index

Interest → (-)Stock Index

Authors : Singh, T., Mehta, S., & Varsha, M. S. (2011)

Variables : Stock Portfolio Returns(constructed using Market Cap, Price to BV, Price Earnings & earnings yield) GDP, inflation, exchange rate & employment

Country : Taiwan

Period : Jan03- Dec08

Methodology : Regression analysis with portfolios

Results : GDP → (+) Portfolio Returns

Exch Rate → (+) Port. Returns

MS → Portfolio Returns

Employment → Port. Returns

Authors : Rahman, A. A., Sidek, N. Z. M., & Tafri, F. H. (2009)

Variables : Stock Index, exchange rate, interest rate, reserves, industrial production, and money supply

Country : Malaysia

Period : VAR, VECM, Variance Decomposition

Methodology : Co-integration, VAR-VECM, Impulse Variance Decomposition

Results : Forex → (+)Stock Index,

MS → (+)Stock Index

Interest → (-)Stock Index

Reserves → (+)Stock Index

Indl Prod → (+)Stock Index

Authors : Humpe, A., & Macmillan, P. (2009)

Variables : Stock Index, IP, MS, Inflation & long-term interest rate

Country : Japan and the US

Period : January 1965 to June 2005

Methodology : Co-integration, VECM

Results : US: IIP → (+) Stock Index,

Interest → (-)Stock Index

Inflation → (-)Stock Index rate

MS → Stock Index

Japan IIP → (+)Stock Index,

MS → (-)Stock Index rate

Authors : Sohail, N., & Hussain, Z. (2009)

Variables : Stock Index, inflation, TB, IP, exchange rate, and MS.

Country : Pakistan (Lahore)

Period : Dec 2002-June 2008

Methodology : Co-integration, [Inflation → (-) Stock Index]

Results : Forex → (+)Stock Index

Indl Prod → (+)Stock Index

MS → (+)Stock Index

Treasury Bill → Stock Index

Authors : Ben Naceur, S., Ghazouani, S., & Omran, M. (2007)

Variables : Stock Index, financial intermediaries, saving rate, market liquidity & inflation

Country : MENA countries

[Different periods for each MENA Country,]

Period : Range 1979-1999

Methodology : Panel fixed and random effect model

Results : Savings → (+)Stock Index
Fin. Inter→ (+)Stock Index,
Market Liq → (+)Stock Index &
Inflation → (+)Stock Index

Authors : Maysami, R. C., Howe, L. C., & Rahmat, M.A. (2005)

Variables : Stock Index, Finance Index, Property Index, Hotel Index price levels, exchange rate, interest rates, money supply & industrial production

Country : Singapore Stock Market

Period : Jan 1989 to Dec 2001

Methodology : Co-integration, VECM

Results : All Macros → (+)Stock Index

All Macros → (+)Property Index

Few Macros → (+)Finance Index.

Few Macros → (+)Hotel Index

Authors : Garcia, V. F., & Liu, L. (1999)

Variables : Stock Prices, inflation, real income, financial intermediaries, stock market liquidity and savings rate

Country : Fifteen countries

Period : 1980-1995

Methodology : Pooled regression

Results : Savings → (+)Stock Index

Fin. Inter→ (+)Stock Index,

Market Liq → (+)Stock Index &

Inflation → (+)Stock Index

Real income → (+)Stock Index

Authors:Naka, A., Mukherjee T., &Tuft,D. (1998)

Variables : Stock Index, IIP, CPI, M1, Money Market rate and investment.

Country : India

Period : 1991-1997

Methodology : Co-integration, VECM

Results : Inflation → (high-)Stock Index

Indl Prod→ (high+)Stock Index

Authors :Adam, A.M.,& Tweneboah, G. (2008)

Variables : Stock index, FDI, TB rate, CPI and exchange rate

Country : Ghana

Period : 1991 - 2006

Methodology : Co-integration, Impulse & Variance Decomposition

Results : Inflation → (high-)Stock Index

Forex → (low+)Stock Index

Indl Prod→ (low+) Stock Index

Int. Rate→ (low+) Stock Index

explain small while inflation

FDI→ (high+)Stock Index

Authors : Pal, K., & Mittal, R. (2011)

Variables : Interest rates, inflation rate, exchange rates and gross domestic savings (GDS)

Country : India

Period : 1995 - 2008

Methodology : Co-integration test and ECM

Results : Inflation → (high-)Stock Index

Int. Rate→ (high+)Stock Index

Forex → (high+)Stock Index

Savings ⇄ Stock Index

Authors : Gan, C., Lee, M., Yong, H. H. A., & Zhang, J. (2006)

Variables : Stock Index, CPI, Long term and Short term interest rates, Exchange rate, GDP, M1 Money Supply & Oil Prices.

Country : New Zealand

Period : January 1990 to January 2003

Methodology : Causality, Co-integration, Impulse and Variance Decomposition

Results : GDP→(+)
Stock Index

Interest rates→(+)
Stock Index

Money Supply→(+)
Stock Index

Research Objectives

The main objective of the paper is to ascertain whether or not there exists a meaningful relation between macro variables and stock market performance. This is achieved by accomplishing the following research objectives:-

- (i) Establishing a single regression which includes long and short-run variables under the ARDL representation model (after incorporating structural break in intercept, if any)
- (ii) To apply the Partial 'F' bounds test to ascertain whether co-integration exists or not between stock market return and macro variables as a unit
- (iii) To establish the error-correcting mechanism (in case co-integration is proved) to achieve equilibrium between the long and short-run and also to determine the time required to achieve equilibrium.
- (iv) To establish short-run causality (if any)

(v) To carry out diagnostics for the ARDL Model in terms of:

- (a) Stationarity of the Variables after including structural break
- (b) Serial Correlation
- (c) Stability of the Model Parameters

Description of Data its Sources

The present study includes eight variables, seven of which are the macroeconomic variables which include Index of Industrial Production (IIP), Wholesale Price Index(WPI), Yield on 10 year Government Bond, Money Supply (M1), Foreign Exchange Rates(Forex), Gold & Crude Oil Prices and one stock market variable; the flagship index of the National Stock Exchange of India, the NSE Nifty. The data of the variables have been collected monthly for the period April 2000-March 2019 (228 data points) and the following are the sources of data:-

- (i) www.rbi.org.in
- (ii) www.indiamacroadvisors.com
- (iii) www.community.data.gov.in
- (iv) www.investing.com
- (v) www.mospi.nic.in
- (vi) www.inflation.eu

Further, there was a need to convert data on some variables (e.g. IIP, WPI) to a fixed base period and therefore splicing was carried out according to the formula given in www.gradestack.com. The data has also been log-transformed for these variables.

Research Methodology and Hypothesis Testing

Under this first, we would establish the methodology used for establishing the three pre-requisites of the model followed by the detailed explanation of the ARDL representation Model which includes The ARDL Model, the Partial 'F' Bounds test and Short-run model estimation with error correction.

ARDL Model Pre-requisites

(I) **Breakpoint Unit root test:** It is important for ARDL that the variables under consideration are

Nifty we have developed eight separate ADF equations (with intercept & trend) & these equations are given as under (eq. i to viii).

(Focusing on equation (i) which is ADF Stationary equation for WPI, ΔWPI_t is change in WPI in period t, the stationary coefficient is $(\beta_2 - 1)$ which is put to test for null hypothesis of $\beta_2 = 1$, denotes change in WPI in period t-i, where 't' is the time period and 'i' being the no. of lags. This term is called the 'augmented' term as it removes autocorrelation from the stationary equation. The 'augmented'

$$\Delta WPI_t = \beta_1 + \beta_1 * D_{1t} + (\beta_2 - 1) WPI_{t-1} + \sum_{i=1}^m \beta_{3i} \Delta WPI_{t-i} + \beta_4 t + u_{1t} \dots \text{eq.(i)}$$

$$\Delta IIP_t = \alpha_1 + \alpha_1 * D_{2t} + (\alpha_2 - 1) IIP_{t-1} + \sum_{i=1}^m \alpha_{3i} \Delta IIP_{t-i} + \alpha_4 t + u_{2t} \dots \text{eq.(ii)}$$

$$\Delta FOREX_t = \lambda_1 + \lambda_1 * D_{3t} + (\lambda_2 - 1) FOREX_{t-1} + \sum_{i=1}^m \lambda_{3i} \Delta FOREX_{t-i} + \lambda_4 t + u_{3t} \dots \text{eq.(iii)}$$

$$\Delta \text{Yield Govt Bond}_t = \delta_1 + \delta_1 * D_{4t} + (\delta_2 - 1) \text{Yield Govt Bond}_{t-1} + \sum_{i=1}^m \delta_{3i} \Delta \text{Yield Govt Bond}_{t-i} + \delta_4 t + u_{4t} \dots \text{eq.(iv)}$$

$$\Delta \text{Crude}_t = \pi_1 + \pi_1 * D_{5t} + (\pi_2 - 1) \text{Crude}_{t-1} + \sum_{i=1}^m \pi_{3i} \Delta \text{Crude}_{t-i} + \pi_4 t + u_{5t} \dots \text{eq.(v)}$$

$$\Delta \text{Gold Prices}_t = \gamma_1 + \gamma_1 * D_{6t} + (\gamma_2 - 1) \text{Gold Prices}_{t-1} + \sum_{i=1}^m \gamma_{3i} \Delta \text{Gold Prices}_{t-i} + \gamma_4 t + u_{6t} \dots \text{eq.(vi)}$$

$$\Delta MS_t = \epsilon_1 + \epsilon_1 * D_{7t} + (\epsilon_2 - 1) MS_{t-1} + \sum_{i=1}^m \epsilon_{3i} \Delta MS_{t-i} + \epsilon_4 t + u_{7t} \dots \text{eq.(vii)}$$

$$\Delta \text{NSE Nifty}_t = \gamma_1 + \gamma_1 * D_{8t} + (\gamma_2 - 1) \text{NSE Nifty}_{t-1} + \sum_{i=1}^m \gamma_{3i} \Delta \text{NSE Nifty}_{t-i} + \gamma_4 t + u_{8t} \dots \text{eq.(viii)}$$

stationary. In simple words, a variable is said to be stationary if the variance of its mean is constant or it does not change with time (where mean is computed on rolling basis) Again out of different tests for stationarity we have applied ADF unit root test (however our test includes single break-in time series which has been identified using Perron's (1997) innovative outlier method where break is incorporated in the intercept). For our seven macroeconomic variables and one stock index variable NSE

term would continue to add up say 'm' times till the equation is free from serial correlation. Then in the ADF Stationary equation, trend stationarity is taken care of by including a trend variable; is the random error term. D1t is the intercept Dummy which follows an innovative outlier method as given by Perron (1997) and represents a break in the intercept. This Dummy takes the value of '1' if the observation falls after the break date and '0' before and on the break

date { $D1=1$, after the break and 0(before & break date)}. In case the break exists, then the coefficient β_1 is expected to be statistically significant. Note: For other variables Index of Industrial Production(IIP), Yield on 10 year Government Bond, Money Supply (MS)(M1), Foreign Exchange Rates, Gold & Crude Oil Prices & NSE Nifty Index we follow a similar test procedure for testing the variable stationarity.)

The testable hypothesis for Breakpoint Stationarity test of our Variable WPI (eq (i)) would be:

$$(H01): \beta_2 - 1 = 0 \text{ or } \beta_2 = 1$$

(WPI has a unit root after incorporating break)

$$(Ha1): \beta_2 - 1 \neq 0,$$

(WPI is stationary after incorporating break)

The hypothesis of the other seven variables is built up similarly.

(ii) Test for Auto Correlation

The second diagnostic is to find out whether or not our model is free from auto-correlation. The criteria we are adopting in our study is 'Q' Statistics which would test if the correlation between residual return and residual lag returns for our model (up to certain lag) is zero. This is similar to the 'F' test where we set up a Joint Hypothesis for coefficients which are placed as simultaneously equal to zero.

Null Hypothesis: The time series of residuals does not suffer from the auto correlation.

The Q' statistics follow Chi-Square distribution ('m' = no. of lags, is the coefficient of auto correlation between residual and residual lag, 'n' are the no. of observations), the applicable formula is:-

$$Q_m = n \cdot \sum_{l=1}^m P_l^2$$

(iii) Test for Model Stability

The third diagnostic under this study is to test whether our model (& parameters of the model) are stable. For this, we have applied the Cumulative Sum of the Squares (CUSUM) Plots which achieves the model stability through residuals. The model is considered stable if the plot is within $\mu \pm 2 S.E$ i.e. (5 % level). The plot has been constructed by taking the time period (monthly prices) on the 'x' axis and cumulative sum of the squares of the residuals on the 'y' axis. The two critical levels are shown by two straight lines moving upwards; one below & another above the 'x' axis. Also since we have included the structural break in our study, the plot has been constructed after its incorporation.

ARDL Model Specification

Under this, we present complete ARDL Model which has three parts; the first part is ARDL Model Representation equation where both short and long-run relation is established under a single equation, second is the Partial 'F' Bounds test which decides whether co-integration exists or not and the third is the error correction representation equation which decides the adjustment mechanism towards equilibrium.

(i) ARDL Model Representation:

Our ARDL Model representation equation is given as equation (ix) below where the variables with lag(1) are the representation of the long term relationships while the change in the variables with lags is the short term reflection. We also include a dummy variable that shows the break in the dependent variable and the Dummy takes the value of '1' if the time period falls after the break (including break

date) and it takes the value as '0' if this period falls before the break. The no. of lags for each short term variables is determined by AIC Criteria, however here we have added a restriction of maximum no. of lags for each model where for dependent variable, the number is fixed at '2' while independent variable this no. is maximum '3' lags (see Narayan 2004: no. of lags should be high enough to make model free from serial correlation, but low enough to ensure that ECM is not highly over-parametized). A point here which we must mention here is that we are testing co-integration between the dependent variable, NSE Nifty and macro variables as a group/single unit. The co-integration amongst the macro variables themselves has already been established while testing for stationarity as all the macro variables were I(1). This is given by Granger Representation Theorem (Engle, R. F., & Granger, C. W. (1987), and according to the theorem 'if two-time series become stationary after differencing, then such time series are co-integrated.'

(ii) Partial 'F' Bounds Co-integration test:

The test which decides whether co-integration exists or not amongst the variables is the Partial 'F' Bounds test developed by Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). The test gives the

critical values in the form of; Upper and Lower Bound critical and if the computed F Statistics from ARDL Model exceeds the upper bound critical, the Co-integration is established. Also, the test gives the range of indecisiveness i.e. if the computed 'F' falls within the lower and upper bound critical, then no decision can be made regarding co-integration, an 'F' statistics below the critical is surely not co-integration. These values are given in Appendix III.

(iii) The error correction mechanism and short-run relation:

The third part under ARDL is an error correction mechanism that depends upon the results obtained from Partial 'F' Bounds test. If the Partial 'F' Bounds test gives positive results or the co-integration is proved, then we can proceed to error correction which is a corrective mechanism as we proceed towards the long run. This equation for the same given as equation (x) below and includes all short-run variables and also lagged ECM term which shows the speed of adjustment to long-run equilibrium. The lagged error term is obtained from the contemporaneous model as given in equation (xi). Again if Partial 'F' tests show 'no' co-integration, then we would be developing only short-run results with no error correction and examine if we get the causal effect amongst the variables.

Equations for ARDL Model Specification

(i) ARDL Model Representation

$$\begin{aligned} \Delta \text{NSE NIFTY}_{t} &= \beta_1 + \beta_2 \text{NSE NIFTY}_{t-1} + \beta_3 \text{IIP}_{t-1} + \beta_4 \text{Gold Prices}_{t-1} + \beta_5 \text{Crude}_{t-1} + \beta_6 \text{MS}_{t-1} \\ &+ \beta_7 \text{Forex}_{t-1} + \beta_8 \text{WPI}_{t-1} + \beta_9 \text{YieldGovt Bond}_{t-1} + \sum_{i=1}^m (\beta_{10,i} \Delta \text{NSE NIFTY}_{t-i}) \\ &+ \sum_{i=0}^n (\beta_{11,i} \Delta \text{Crude}_{t-i}) + \sum_{i=0}^n (\beta_{12,i} \Delta \text{IIP}_{t-i}) + \sum_{i=0}^n (\beta_{13,i} \Delta \text{Gold Prices}_{t-i}) + \\ &\sum_{i=1}^n (\beta_{12,i} \Delta \text{MS}_{t-i}) + \sum_{i=0}^n (\beta_{13,i} \Delta \text{Forex}_{t-i}) + \sum_{i=0}^n (\beta_{14,i} \Delta \text{Yield Govt Bond}_{t-i}) \\ &+ \sum_{i=0}^n (\beta_{15,i} \Delta \text{WPI}_{t-i}) + \beta_{16} \text{D1} + v_t \dots \dots \text{(ix)} \end{aligned}$$

(β_1 is the intercept, β_2, \dots, β_9 are the coefficients of the variables showing long term relation between NSE Nifty and different macro variables, $\beta_{10}, \dots, \beta_{15}$ are the short run parameters to be estimated which sum up to 'n' times for each variable ; 'n' being the number of lags which are independently determined for each variable using the lag determination criteria AIC. β_{16} is the slope coefficient of Dummy reflecting structural break in NSE Nifty and finally v_t is the stochastic error term.)

(ii) Model for Error Correction and Short Run Results

$$\Delta \text{NSE NIFTY}_{t,t} = \theta_1 + \theta_2 \text{ECM}_{t-1} + \sum_{i=1}^n (\theta_{3,i} \Delta \text{NSENIFTY}_{t-i}) + \sum_{i=0}^n (\theta_{4,i} \Delta \text{Crude}_{t-i}) + \sum_{i=0}^n (\theta_{5,i} \Delta \text{IIP}_{t-i}) + \sum_{i=0}^n (\theta_{6,i} \Delta \text{GoldPrices}_{t-i}) + \sum_{i=1}^n (\theta_{7,i} \Delta \text{MS}_{t-i}) + \sum_{i=0}^n (\theta_{8,i} \Delta \text{Forex}_{t-i}) + \sum_{i=0}^n (\theta_{9,i} \Delta \text{Yield Govt Bond}_{t-i}) + (\theta_{10,i} \Delta \text{WPI}_{t-i}) + \theta_{11} D_1 + v_t, \dots (x)$$

θ_1 is the intercept, θ_2 is the parameter of lagged error correction term (ECM) term e_{t-1} obtained by running OLS on contemporaneous variables (see eq. xi), $\theta_3, \dots, \theta_{10}$ are the short run parameters to be estimated θ_{11} is the slope coefficient of Dummy reflecting structural break in NSE Nifty and v_t being the stochastic error term. Also 'n' for the short term co-integration has be defined by the best model given by AIC.)

(iii) Contemporaneous Model to obtain lagged Error Correction term

$$\text{NSE NIFTY}_{t,t} = \lambda_1 + \lambda_2 \text{IIP}_{t,t} + \lambda_3 \text{Gold Prices}_{t,t} + \lambda_4 \text{Crude}_{t,t} + \lambda_5 \text{MS}_{t,t} + \lambda_6 \text{Forex}_{t,t} + \lambda_7 \text{WPI}_{t,t} + \lambda_8 \text{YieldGovt Bond}_{t,t} + e_t, \dots (xi)$$

(λ_1 is the intercept, $\lambda_2, \dots, \lambda_8$ are the parameters of contemporary macro variables IIP, Gold, Crude, MS, Forex, WPI & Yield on Govt. Bond respectively. The OLS model to obtain the contemporaneous relation between NSE Nifty and macro variables are achieved after making the variables stationary and e_t is the stochastic error term.)

Empirical Results of the Study and its Interpretation

The results of the study are given in appendices. To begin with, we would be discussing the results of the ARDL Model Specification (Appendix I to V). Appendix I gives the ARDL Model equation long run results for the optimal no. of lags for each variable included as identified by AIC Lag selection criteria. The equation also includes a Dummy variable D1 which has been included to represent a structural break in NSE Nifty. In the long run, we find that only two variables namely Index of Industrial

Production (IIP) & Money Supply are significant at 5 % & 10 % critical levels respectively. Also, the coefficient of the dummy is significant showing that the break has been correctly detected in the model.

Next, we try to determine whether co-integration exists or not and for that we look at the Partial 'F' test results in Appendix II. The results reveal that our computed 'F' Statistics of 3.445 lies in between the upper and lower bound critical (at 5 % level) and beyond upper critical (at 10 % level), therefore the co-integration is

only established if we go by 10 % level while at 5 % level we shall be indecisive to co-integration. (See Appendix III)

Appendix IV gives the ARDL Model equation short run together with error correction. In the short run, we find that variables; Crude Oil, Exch. Rate, IIP & Govt. Bond Yield is significant with their 'p' values being lower than 0.05. The no. of lags in each of these variables depends upon the optimal AIC Model selected. The table also gives the variable; lagged error correction (ECM) which has been obtained as residual by running a contemporaneous equation between the variables (See Appendix V). The ECM Coefficient has a value as -0.058246 which is both statistically significant and also negative. Also since both these two conditions are fulfilled, the ECM term shall be stable. Further, the value of the ECM coefficient may be interpreted as the adjustment between the short and long run towards equilibrium and the obtained value tells us that it would take approximately 17 months to achieve the equilibrium.

Next, we have the results of the Model Diagnostics in terms of stationarity, serial correlation, and stability tests. These are given in Appendix VI, VII & Fig I. Appendix VI shows the result of the breakpoint unit root test which gives year and month of break of all the variables under study. For NSE Nifty the test has identified June 2004 as a break period (based upon innovative outlier approach of Perron (1997). All the variables under study were found to be stationary at I(1). The test results of serial correlation for our Model are shown in Appendix VII and the results reveal that NSE Nifty does not have any problem of serial correlation up to 10 lags as at all lags the 'p'

values of 'Q' Statistics is accepting the Null of No Serial Correlation. The third diagnostics is in terms of Stability Plot where we have plotted CUSUM against time period (See Fig I)and since the curve for CUSUM does not cross the critical lines the model is stable.

Conclusion and Policy Recommendations

To conclude, the present study attempted to investigate the impact of seven macro-economic variables namely Index of Industrial Production, Wholesale Price Index, Yield on 10 year Government Bond, Money Supply (M1), Foreign Exchange Rates, Gold & Crude Oil Prices on the NSE Nifty Index of the National Stock Exchange. The data used under the study was log-transformed monthly closing prices for these variables for the nineteen years April 2000-March 2019. The relationship was tested using an ARDL Co-integration Model where macro variables as a group(single unit) were tested for co-integration with NSE Nifty Stock Index. In terms of results, we find that Co-integration was only established at a 10 % critical level while at a 5 % level our result was indecisiveness.

In terms of long-run results, only two variables namely Index of Industrial Production (IIP) & Money Supply were found to be significant at 5 % & 10 % critical levels respectively. Further, the dummy coefficient representing the break was also significant. In terms of short-run results four variables namely Crude Oil, Exch. Rate, IIP & Govt. Bond Yield is found to have significant 'p' values. Also, short-run unidirectional causality could be noticed from Crude Oil & Exchange rate to NSE Nifty. Further lagged error correction (ECM) Coefficient had a value as -0.058246 which was both statistically significant and also

negative reflecting backward adjustment towards equilibrium with approximately 17 months to achieve the equilibrium. Overall ARDL Model was found to be stable, free from autocorrelation while all the variables were I(1) Stationary.

Some important policy issues emerge from the findings of the paper; first, with only two variables crude and exchange rate impacting the index in both the short and long run, the government should follow a strict policy for these variables. For exchange rate, it could mean maintaining a close watch on volatility of the rupee and necessary intervention whenever the situation warrants, while for crude where the domestic prices are mainly driven by international prices, government may design a long term policy whereby it can gradually shift from fossil fuels to renewable energy products with fixed targets as is being done in some of the western economies. Such a step would not only result in reducing (if not eliminating) the fuel dependency but also help the country in achieving the reduction in carbon emissions to meet the goals of sustainable development.

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APPENDICES

Appendix I: ARDL Model Long Run Results for Optimal Model AIC(Dependent Variable : D(Log Nifty)

Independent Variable	Coefficient	t-Statistic	Prob.
Nifty (-1)	-0.058246	-2.232291	0.0267
Crude Oil (-1)	0.003232	0.118188	0.9060
Exch Rate (-1)	-0.063751	-0.570752	0.5688
GOI 10 yr bond (-1)	-0.045417	-1.589499	0.1135
Index of Indl Pr(-1)	-0.242475	-2.268443	0.0243
WPI	0.126962	0.728037	0.4674
M1	0.137560	1.923629	0.0558
Gold Prices	-0.000599	-0.014005	0.9888
D1(BREAK in Nifty)	0.049441	2.294174	0.0228

Appendix II: ARDL Co-integration Partial 'F' test Results

Model Specification	'F' Bounds Value Computed	Inference
Nifty as an f(Crude Oil, Exch Rate, GOI 10 yr bond, IIP, Gold Prices, WPI & M1 (MS)	Computed F = 3.445	Co-integration is Established at 10 %, No Inference at 5 % levels

Appendix III: Critical Tables for ARDL F Bounds test

	5 % Critical Value	10 % Critical Value
Lower Bound I(0)	2.32	2.03
Upper Bound I(1)	3.5	3.13

Appendix IV: ARDL Model ECM & Short Run Results for Optimal Model AIC Dependent Variable : D(Log Nifty)

Independent Variable	Coefficient	t-Statistic	Prob.
D(Crude Oil)	0.212791	5.186589	0.0000
D(Crude Oil (-1))	-0.098931	-2.306429	0.0221
D(Exch Rate)	-1.571247	-8.906248	0.0000
D(Exch Rate (-1))	-0.491475	-2.782110	0.0059
D(GOI 10 yr bond)	-0.298182	-3.067098	0.0025
D(GOI 10 yr bond (-1))	0.159615	1.700282	0.0906
D(GOI 10 yr bond (-2))	0.197475	2.211197	0.0281
D(Index of Indl Pr)	-0.124931	-1.835205	0.0679
ECM (-1)	-0.058246	-5.338093	0.0000
BREAK in Nifty	0.049441	4.189135	0.0000

Note 1: Gold Prices, WPI & M1 are not included in short-run results as their optimal AIC has '0' lags and this being a short run equation, levels are not included

Note 2: ECM is obtained from the levels equation (eq. xi).

Appendix V: Simple OLS contemporaneous equation (Level Equation) Dependent Variable : (Log Nifty)

Independent Variable	Coefficient	t-Statistic	Prob.
Crude Oil	0.055487	0.117967	0.9062
Exch Rate	-1.094517	-0.599625	0.5494
GOI 10 yr bond	-0.779739	-1.196280	0.2330
Index of Indl Pr	-4.162952	-1.383401	0.1680
Gold Prices	-0.010292	-0.014046	0.9888
WPI	2.179751	0.720823	0.4718
M1	2.361706	1.778920	0.0767

Appendix VI: Breakpoint Unit root stationary test results of our variables (All models with intercept & trend with a breakpoint at trend, Lag Spec.: AIC)

VARIABLES	YEAR & MONTH OF BREAK	COMPUTED 't' at level & ('p' values in parenthesis)	Computed 't' at 1 st Difference & ('p' values in parenthesis)
WPI	OCT 2000	-4.663182(0.0852)	-9.741816(0.01)
MS(M1)	SEPT 2000	-2.718328(0.9647)	-13.17380(0.01)
NIFTY	June 2004	-4.680124(0.0814)	-15.22260(0.01)
IIP	DEC 2000	-4.667117(0.0843)	-28.38062(0.00)
GOLD PRICES	JAN 2013	-2.678516(0.9693)	-17.33336(0.00)
GOI 10 YEAR BOND	SEPT 2000	-4.095597(0.3151)	-15.61176(0.00)
EXCHANGE RATE	OCT 2000	-3.638970(0.6043)	-13.32729(0.01)
CRUDE OIL	OCT 2008	-4.434306(0.1551)	-13.40331(0.01)

Appendix VII: Serial Correlation Results (ACF, PACF & Q Statistics) till 10 lags

No. of Lags	ACF	PACF	Q Statistics	Probability
1	0.029	0.029	0.1940	0.660
2	0.039	0.038	0.5467	0.761
3	-0.008	-0.011	0.5624	0.905
4	0.048	0.047	1.0969	0.895
5	-0.076	-0.078	2.4309	0.787
6	-0.027	-0.026	2.6028	0.857
7	-0.123	-0.116	6.1477	0.523
8	-0.120	-0.118	9.5382	0.299
9	-0.027	-0.007	9.7052	0.375
10	-0.040	-0.039	10.079	0.434

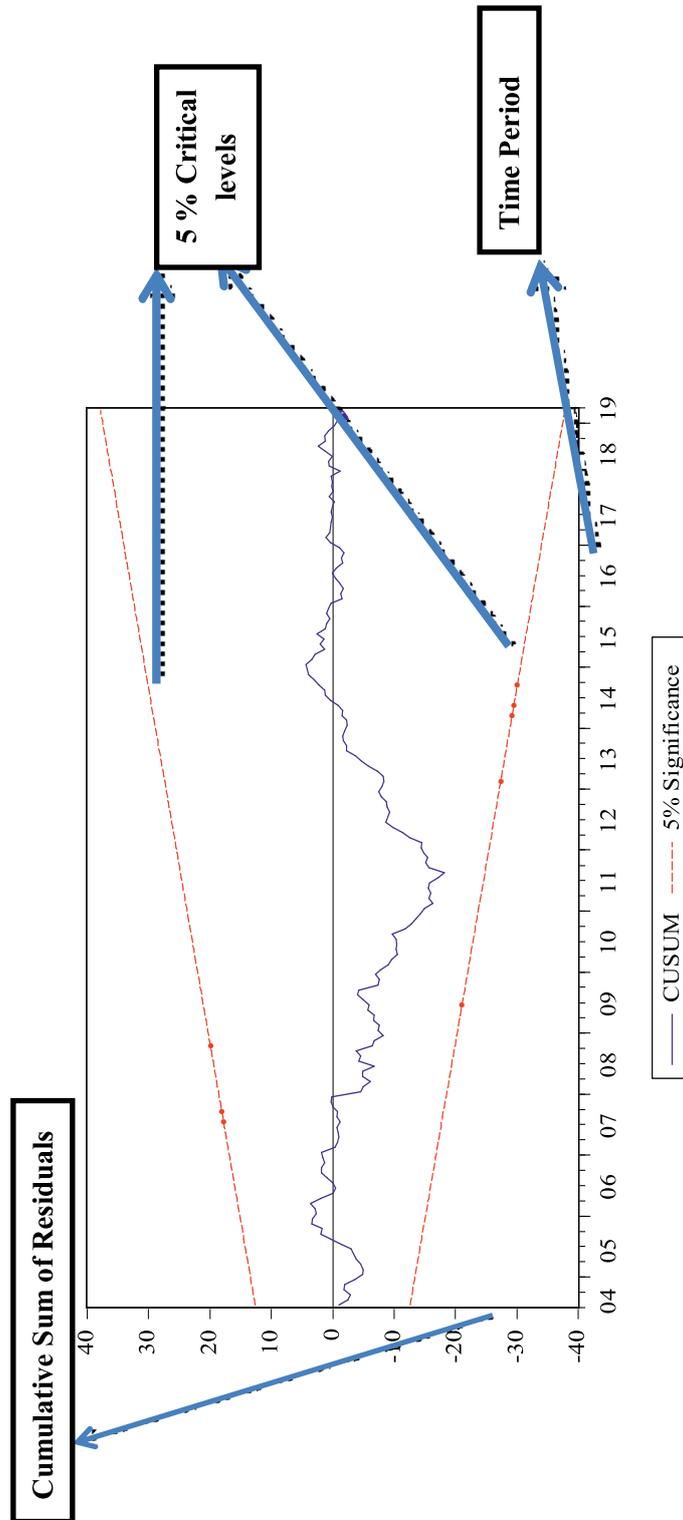


Fig 1: CUSUM Plot for NSE Nifty (with single break)

An Effect of Advertising on Women Buying Behaviour

Nidhi Khurana*

Abstract

Advertising is a paid form of communication to persuade the demand of customers as they demand different commodities based on their tastes and preferences. Consumers play a very important role in the economic system of any nation. With the increase in technological advancement, effective advertising has become extremely important to be able to have a competitive advantage, hence the need for this study arises. This study examined the effect of advertising on women consumer buying behavior by tapping the responses of 200 women respondents residing in urban areas of Jabalpur city. The basic objective of this research is to assess the role of T.V ads in buying decisions of women and to know the effect of advertisement on urban working and non-working women buying behavior by focusing on readymade apparel. It involves the collection of data from women respondents through the questionnaire to test the hypothesis. A chi-square test was used to test the hypothesis. The research findings show that there is a significant difference in the sources of knowing the latest trend in readymade garment among urban working and non-working women. There is no significant difference in the effect of advertisements on working and non-working women buying behavior and there is a significant difference in the changed perception towards apparel because of some aspects of television ad on urban working and non-working women.

Introduction

The evolution of advertisement dates back to ancient times. Societies used symbols, and pictorial signs to attract their product users. Over the centuries, these elements were used for the promotion of products. At an early age, these were handmade and were produced at a limited scale for promotions. Later on, this phenomenon gained strength more intensively for promotional purposes.

Today's modern environment, advertisements have become one of the major sources of the communicational tool between the manufacturer and the user of the products. A company cannot make a dream to be a well-known brand until they invest in their promotional activities, for which consumer market has been dominating through advertisements. As the primary mission of advertisers is to reach prospective customers and influence their awareness, attitudes and buying behavior. They spend a lot of money to keep the individual's interest in their products.

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They need to understand what makes potential customers behave the way they would like. It also appears that advertising may have the potential to contribute to brand choice among consumers.

There has been a tremendous increase in the need for advertisement in the 20th Century. No business can be successful without advertising. Today, companies are leaning towards digital advertising and are focused on social media and mobile advertisement. Thus, the major aim of advertising is to bring an impact on the mind of consumers influencing buying behavior, which can be done through a good quality advertisement. Consumers are the kings of any market. This is why the marketers plan their business activities as per the demand and preferences of the customers. Psychological processes play an important role in understanding how consumers make their buying decisions. Smart companies try to fully understand the customers' buying decision process, all their experiences in learning, choosing, using and even disposing of a product. The consumer passes through five stages to make their purchase decision viz, problem recognition, information search, evaluation of alternatives, purchase decision, and post-purchase behavior. Consumers do not always pass through all five stages of buying a product. They may skip some steps. When a customer purchases a regular brand of soap, it will go directly from the need for soap to the purchase decision, skipping information search and evaluation.

Review of Literature

B.A. Chukwu, E.C. Kanu, A.N. Ezeabogu (2019) examined the impact of advertising on consumer buying behavior in Enugu State

Nigeria. This study adopted a survey research design. It involves the collection of data from respondents through a questionnaire to test hypotheses. Multiple regression techniques were used to test hypotheses. The research findings show that a significant and positive relationship lies between the independent variables emotional response, environmental response towards the brand, brand awareness and sensory stimulated advertising and dependent variable consumer buying behavior. All the independent variables have statistically significant t-ratio and have a positive relationship with consumer buying behavior. This result is consistent with the literature. They recommended that for effective advertising to take place, the target audience must be extensively reached to know their consumption patterns and behavior toward products and services. And that effort should be directed more on emotional related advertising since consumers patronage are highly induced through their emotion. Ligo Koshy, Dr.S.John, Manohar (2016) conducted the study on 100 youth customers, within the age group of 15 to 29, to know the impact of T.V. advertisement on their buying behavior. The results revealed the importance of TV advertisements on buying behavior among youth. Ali Hassan (2015) examined that television advertising is considered as one of the most effective media to influence the purchase decision of consumers. The study concluded that rural consumers like T.V advertisements more than urban consumers and both residents are satisfied when they look at the advertisement for that product which they use. Fathima Adeela Beevi (2014) focused on the buying behavior of women. The study revealed that women consumers most depend on television advertisement which is suitable for illiterate women too. Advertisement plays a vital role in the development process by

creating the demand for consumer goods and raising the standard of living of the people. Women customers are strong brand influencers with the effect of advertisement and the use of social media.

Objectives of the Study

- To assess the role of T.V ads in buying decisions of women.
- To know the effect of advertisement on urban working and non-working women buying behavior

Research Methodology

The data has been obtained with the help of a questionnaire. A total of 300 questionnaires were circulated among the women respondents (150 working women and 150 non-working women) residing in urban areas of Jabalpur in the age group 18 and above of which 200 (100 from working women and 100 from non - working women) were considered for analysis. The secondary data has been obtained from the research journals, articles and the internet. The data has been collected through a random sampling method and analyzed through the Chi-Square test and percentage method.

Hypothesis

1. There is no significant difference in the sources of knowing the latest trend in ready made garment, among working and non-working women.
2. There is no significant difference in the effect of advertising on urban working and non-working women buying behavior.

3. There is no significant difference in the changed perception towards apparels because of advertisement on urban working and non-working women.

Limitation of the Study

- The study is confined to women residing in urban areas of Jabalpur city thus, its results cannot be generalized.
- The study is limited to ready made apparel.
- There is also a limitation of time.

Data Analysis

The collected data was analyzed, tabulated and interpreted. The hypothesis was tested using the chi-square test as under:

Hypothesis 1: There is no significant difference in the sources of knowing the latest trend in ready made garment.

This hypothesis is framed to prove the question given below:

8. What is the best source of knowing the latest trend in ready made garments?
 - (a) T.V (b) Radio FM
 - (c) Hoardings (d) Newspaper

Table1: Source of knowing the latest trend

Group	Working Women	Non-Working Women	Total
T. V	41	61	102
Radio FM	14	8	22
Hoardings	13	12	25
Newspaper	32	19	51
Total	100	100	200
Chi-square	$\chi^2 = 8.66 \quad df=3$		

For 3 degrees of freedom and 0.5 level of significance, the table value of Chi-Square is 7.81. The calculated value of Chi-Square is 8.66 which is more than the table value 7.81, hence the hypothesis is rejected. It is concluded that there is a significant difference in the sources of knowing the latest trend in readymade garment among urban working and non-working women.

Hypothesis 2: There is no significant difference in the effect of advertising on the urban working and non-working women buying behavior.

This hypothesis is framed to prove the question given below-

15. How far does advertisement affect buying behavior?

- (a) Not at all (b) A little
- (c) To a great extent (d) Totally

Table 2: Effect of advertising on buying behavior

Group	Working Women	Non-Working Women	Total
Not at all	26	34	60
A little	49	43	92
To a great extent	19	19	38
Totally	6	4	10
Total	100	100	200
Chi-square $\chi^2 = 1.84$ df=3			

$Degree\ of\ freedom = (r-1) \times (c-1) = (2-1) \times (4-1) = 1 \times 3 = 3$

For 3 degree of freedom and 0.5 level of significance, the table value of Chi-Square is 7.81

The calculated value of Chi-Square is 1.84 which is less than table value 7.81, hence the

hypothesis is accepted. It is concluded that there is no significant difference in the effect of advertisements on working and non-working women buying behavior.

Hypothesis 3: There is no significant difference in the changed perception towards apparels because of some aspects of television ad on urban working and non-working women.

This hypothesis is framed to prove the question given below:

14. Which aspect of the television ad is important to you?

- (a) Background (b) Title/Caption
- (c) Models (d) Slogan

Table 3: Women and their changed perception of various aspects of T.V. ad

Group	Working Women	Non-Working Women	Total
Background	29	17	46
Title/Caption	36	50	86
Models	19	10	29
Slogan	16	23	39
Total	100	100	200
Chi-square $\chi^2 = 9.55$ df=3			

Source: Primary Data

For 3 degrees of freedom and 0.5 level of significance, the table value of Chi-Square is 7.81. The calculated value of Chi-Square is 9.55 which is more than the table value 7.81, hence the hypothesis is rejected. It is concluded that there is a significant difference in the changed perception towards apparel because of some aspects of television ad on urban working and non-working women.

Findings

- The study revealed that 76% of urban working women and 89% of urban non-working women watch advertisements to get themselves updated with the latest trends in the market, while 24% of working women and 11% of non-working women don't.
- There is a significant difference in the sources of knowing the latest trend in the ready made garment in urban working and non-working women. The majority that is 41% of working women find TV advertisement as the most effective source of knowing the latest trend in ready made garment followed by newspaper advertisements 32%, radio 14 % and hoardings 13%. While 61 % of non-working women find TV advertisement as the most effective source of knowing the latest trend in ready made garment followed by newspaper 19%, hoardings 12% and radio 8%.
- There is no significant difference in the effect of advertisement on working and non-working women buying behavior. It is revealed that majority that is 49% and 43% of working and non-working women has a little effect of advertisement on their buying behavior. 26% and 34 % of working and non-working women have no effect of advertisement on their purchase decision, while 19 % of both working and non-working women have a great impact on the advertisement and 6% and 4% of working and non-working women are dependent on advertisement for their purchase decision.
- There is a significant difference in the changed perception towards apparel because of some aspects of an advertisement on urban working and non-working women. The majority of working women 36%

consider the title /caption of TV ad as the most effective aspect for their buying behavior, followed by 29 % background, 19% models and 16% slogans. 50% of non-working women find title /caption of TV ad as the most effective aspect for their buying behavior, followed by 17% background, 23% slogans and 10% models.

- About 92 respondents have little impact of advertisement on their apparel buying behavior, 60 respondents do not find advertisements influencing, 38 respondents feel that advertisements create a high impact on their purchase decisions while 10 women believe that they are dependent on the advertisements for making purchase decisions.

Conclusion

This research was a study of the effect of advertising on women buying behavior. Advertising is the medium of delivering the appropriate message to potential customers as they are the key factors of every organization. Without the presence of customers, a company could not have existed. So the marketer must have a clear understanding of his customers and their behavior by providing them satisfaction by catering to their needs and wants. The company should create advertisements in the language that is easily understandable by the target audience. Advertisements should convey direct information about the apparel rather than showing glamour and exaggeration. Marketers need to identify and understand the buying behavior of women consumers while designing their advertisements for the desired impact. It can be aptly said that advertisement plays an important role in influencing the purchase decision of women but efforts should be taken

by the companies to communicate effective advertisements rather than exaggeration ones.

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Appendix - A
QUESTIONNAIRE (WORKING WOMEN)

Request: The questionnaire is only for research purposes. Please fill the questionnaire.
Your cooperation will be highly acknowledged.

(A) Demographic Details

1. Age:
(a) 18-24 (b) 25-30 (c) 35-40 (d) 40 and above

2. Educational Qualification:
(a) Higher Secondary (b) Graduate (c) Post Graduate (d) Professional

3. Marital Status:
(a) Married (b) Unmarried

4. Select the main/dominant reason why you work:
(a) To do something interesting during the day
(b) To be economically independent
(c) For professional fulfillment
(d) Its core to my identity

5. Type of work:
(a) Government employee (b) Private employee
(c) Self-employed (d) Others

6. Source of Income:
(a) Parents (b) Husband (c) Children (d) Self

7. Personal Income (per month):
(a) Upto 20,000 (b) 20,000-40,000
(c) 40,000-60,000 (d) 60,000 and above

(B) Advertisement related

8. What is the best source of knowing the latest trend in readymade garments?
(a) T.V Advertisement (b) Radio FM (c) Hoardings (d) Newspaper (e) Other
9. Do you watch advertisements?
(a) Yes (b) No
10. Do you think advertising is important?
(a) Yes (b) No
11. What would you prefer to see in an Advertisement?
(a) Images (b) Graphics (c) Gingles (d) Other features
12. How long does the impact of an advertisement last on you?
(a) Few hours (b) One day (c) One week (d) One month
13. How many times you have bought garments just because of TV ads?
(a) Once (b) Twice (c) Frequently (d) Never
14. Which aspect of the television ad is important to you?
(a) Background (b) Title/Caption
(c) Models (d) Slogan
15. How far does advertisement affect buying behavior?
(a) Not at all (b) A little (c) To a great extent (d) Totally
16. Have you ever changed your perception towards apparel because of an advertisement?
(a) Yes (b) No
17. Does an advertisement urge you to try a new brand?
(a) Yes (b) No
18. Do you find advertising unrealistic and exaggerated?
(a) Yes (b) No

Appendix - B
QUESTIONNAIRE(NON-WORKING WOMEN)

Request: The questionnaire is only for research purposes. Please fill the questionnaire.
Your cooperation will be highly acknowledged.

(A) Demographic Detail

1. Age:
(a) 18-24 (b) 25-30 (c) 35-40 (d) 40 and above

2. Educational Qualification:
(a) Higher Secondary (b) Graduate (c) Post Graduate (d) Professional

3. Marital Status:
(a) Married (b) Unmarried

4. Source of Income:
(a) Parents (b) Husband (c) Children (d) Self

(B) Advertisement related

5. What is the best source of knowing the latest trend in readymade garments?
(a) T.V Advertisement (b) Radio FM (c) Hoardings (d) Newspaper (e) Other

6. Do you watch advertisements?
(a) Yes (b) No

7. Do you think advertising is important?
(a) Yes (b) No

8. What would you prefer to see in an Advertisement?
(a) Images (b) Graphics (c) Gingles (d) Other features

9. How long does the impact of an advertisement last on you?
(a) Few hours (b) One day (c) One week (d) One month
10. How many times you have bought garments just because of TV ads?
(a) Once (b) Twice (c) Frequently (d) Never
11. Which aspect of the television ad is important to you?
(a) Background (b) Title/Caption
(c) Models (d) Slogan
12. How far does advertisement affect buying behavior?
(a) Not at all (b) A little (c) To a great extent (d) Totally
13. Have you ever changed your perception towards apparel because of an advertisement?
(a) Yes (b) No
14. Does an advertisement urge you to try a new brand?
(a) Yes (b) No
15. Do you find advertising unrealistic and exaggerated?
(a) Yes (b) No

Determination of the Antecedents that Influence Conspicuous Consumption of Low-income Consumers using AHP Approach

Sanjayasarathy.P*, Kiran Naik ** & Nitin Manohar Joshi***

Abstract

The purpose of this research is to determine the antecedents that influence the conspicuous consumption of low-income consumers in the decision-making process. The literature review study was carried out, followed by personal interview and expertise techniques. Through this research process, it has been identified four inter-discipline antecedents that influence the conspicuous consumption, which are Socio-psychological antecedents, Consumer behavior antecedent, Brand features antecedent, Marketing associates antecedent. The study was carried out in the important metro cities of India—Chennai. Then, the empirical study adopted the techniques of the Analytic Hierarchy Process (AHP) to solicit opinions from 225 low-income consumers, collected through a structured questionnaire.

The results show that marketing associates' antecedents are the most important item in the hierarchy. The socio-psychological antecedents are the second contributing factor. According to these results, the major recommendation from this study is that researchers, policymaker and marketing directors need to delineate conspicuous consumption and share these insights with academic and marketing researchers. Situational social occurrences play a vital role in influencing the decision-makers in the process of conspicuous consumption for low-income consumers.

Introduction

Conspicuous consumption acts as status symbols to satisfy an individual's desire for uniqueness and social membership (Chaudhuri and Manjumar 2006). They buy branded products and pay for superior quality to show wealth in their social class, (Shipman, 2004), though this consumption is much more subtle (O' Cass and McEwen 2004). Charles et al. (2009) argued that due to the decreasing

marginal return to signaling obtained through conspicuous consumption in the average income of a person's reference group, relatively less conspicuous consumption can be observed among individuals having richer reference groups.

Recent empirical research by Nelissen and Meijers (2012) defines conspicuous consumption in terms of the perceived rewards

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one expects due to favorable status-dependent treatment in social interactions. Sivanathan and Pettit's study (2010) confirms that individuals have a high degree of sensitivity towards their relative status in society. Conspicuous consumption is considered as an expensive mode of signaling, but a profitable social strategy perceived by wealthier households (Nielsen and Meijers, 2012). Human capital is observable and correlated with income, then a signaling equilibrium in which poor individuals tend to spend a large fraction of their income on conspicuous consumption can emerge (Omer. M and Zvika. N, 2012). In the process of conspicuous consumption, a personality trait that drives materialistic behavior among consumers (Chacko et al.,2015).Conspicuous consumption in the context of clothing and its relationship with public self-consciousness, materialism, and self-esteem as they relate to the expensive dimensions with young professionals (Abbie, L. and Miguel. M, 2016). Thus, it becomes very important to study the conspicuous consumption in the decision-making process of a low-income consumer.

Literature Review

Conspicuous Consumption The concept of "conspicuous consumption" was first introduced by Veblen (1899), who defined it as spending more money on goods and services than they are worth. He further stated that individuals who engage in conspicuous consumption to achieve social status through the manifestation of their social power and prestige, be it real or perceived.

For conspicuous products, consumers' need for uniqueness prevails. However, consumers value the product less as more people own it, thus exhibiting negative consumption externalities.

Examples of conspicuous products include certain types of jewelry, perfumes, designer handbags, watches, high-end cars, and collectibles, where exclusivity is fundamental to the value of the product. Duesenberry (1967) developed his theory which he labeled the bandwagon effect. Chao (1998) in a study of cosmetics find that conspicuous cosmetics are less differentiated.

With a different consumer mix, Amaldoss and Jain (2005) reach similar conclusions. Shipman (2004) indicated in his research that conspicuous consumption is visible and that consumers may purchase products they do not need simply for display. The price competition is increasing day to day and among luxury goods, manufacturers are becoming more evident (Giacobe, 2009). Agents are involving in conspicuous consumption for social gain (Bratsiotis, 2012). They consider conspicuous consumption to gain social recognition for themselves and sometimes even want to be called a prestige consumer in their target segment. Some economists discuss publicly visible products' consumption being driven by social status (Clingsmith and Sheremeta, 2018).

Low-income Consumers Today, concepts of social class in consumer context often assume three general categories: a wealthy and powerful high-income consumer that owns and controls the means of production; a middle-income consumers of professional workers, small business owners, and low-level managers; and a lower-income consumer, which relies on low-paying wage jobs for their livelihood and often experience poverty. They fall below the poverty line in which is classified as "in relative poverty" means "earning low-

income consumers" (relative low-income consumers) and ("in absolute poverty" means "experience difficulty for even basic needs" (absolute low-income consumers). Normally, when food and oil products increases, which leads to an economic crisis. Both relatively as well as absolute low-income consumers become vulnerable not only in such an economic crisis situation but also in a natural disaster. Depending upon some factors and motivation, the low-income consumers would spend on conspicuous consumption, for upgrading the social status. They try to imitate socially well-established peoples' consumption patterns in South Asian countries.

Van Kempen (2003) demonstrated that in Bolivia, low-income consumers are not only willing to pay a premium on designer goods, but sometimes prefer conspicuous goods over basic needs. In India, we encounter the quest for social status at the marriage market, which is fueled by prices as high as six times the annual household income (Anderson 2003). Bloch et al. (2004) indicated that even low-income consumers undergo high stress due to the highly conspicuous nature of ritual expenditures in India, specifically in the form of wedding celebrations and dowry, to gain social status.

Analytic Hierarchy Process (AHP)

The analytic hierarchy process (AHP) is a structured technique for organizing and analyzing complex decisions, based on mathematics and psychology. It was developed by Thomas Saaty (1980, 1994), allows decision-makers to model a complex problem in a hierarchical structure showing the relationships of the goal, objectives (criteria), sub-objectives, and alternatives. Zahedi (1986) did a lot of research on the AHP methodology and its

application model. Further research extended by Marsh, Moran, Nakui, & Hoffherr (1991) developed a more specific method directly for decision-making. Based on Marsh's research, it is found three steps ordering of a decision, where the first important is considered to be the greatest weight. AHP enables decision-makers to derive ratio scale priorities or weights as opposed to arbitrarily assigning them (Sarathy, 2013). By using AHP, it supports decision-makers to structure complex problem and enable them to exercise judgment. While in the decision-making process, both objective and subjective considered and also it becomes an advantage for group decision making (Dyer, Forman 1991).

- While in AHP, whether it is an individual or group, can be tangible or Intangible, all values related to attributes are considered.
- The main focus of AHP is the goal.
- All factors are well established while considering the discussion forum.
- Until the consensus is obtained by all members, the discussion will continue.

A variety of decision-making environments uses AHP. Most of the complex decision making is applied successfully AHP. (Zahedi, 1986; Golden, Wail, and Harker, 1989; Zopounidis and Doumpos, 2000a, and 2000b). The consistency index is where the AHP permits calculation of a value for the final preference weights. This index measures the transitivity of preference for the person doing the pairwise comparisons (Sinuany and Stern, Z. 1988). To illustrate the meaning of transitivity of preference, if a person prefers choice A over B, and B over C, then do they inconsistent fashion prefer A over C? This index provides a useful

check because the AHP method does not inherently prevent the expression of intransitivity of preferences when ratings are being performed. The AHP consistency index compares a person's informed preference ratings to those generated by a random preference expression process. An arbitrary but generally accepted as a tolerable level of inconsistent preference scoring with the AHP is less than or equal to 0.1 (Sinuany and Stern, Z., 1988). A consistency ratio of CR is computed for each comparison matrix. In an interactive application of AHP, a matrix classified as being inconsistent (CR > 0.1) was given back to the decision making for modification until it fulfills the consistency condition. All of them were less of 0.1 (Mirkazemi et al. 2009). For determining the weight of every alternative, arithmetic means were used based on formula 1:

$$r_{ij} = a_{ij} / \sum_{i=1}^n a_{ij} \quad J=1,2,3, \dots, m$$

Formula 1

At which a_{ij} ($i, j=1..n$) are the comparison ratios in the pairwise comparison matrix and n is the number of alternatives

For determining the weight of every alternative, arithmetic means (formula 1) was used. Vectors of the arithmetic means of the coefficients of importance were then rescaled in the manner that their sum equaled one. Then the symphonic means were calculated based on formula 2:

$$W_i = \sum_{i=1}^n r_{ij} / n \quad J=1,2,3, \dots, m$$

Formula 2

Antecedents

Identifying the priorities of antecedents that influence Conspicuous consumption is very important for the decision-making process. Using the AHP, ranking can be done for the Importance of various alternatives. The objective level was made as four inter-discipline

antecedents with an in-depth literature review. The conspicuous consumption construct need not remain restricted to its original meaning but should be expanded by incorporating more generalized and broader dimensions of "being seen or identified by others. They are Social Hierarchy (Wong, 1997), Situational Social Occurrence (Clark et al., 2007), Self-Monitoring Personality (Lai and Chu, 2007), Snob Effect (Tian, Bearden and Hunter, 2001), Bandwagon (Kastanakis & Balabanis, 2012), Brand Features (O'Cass and Frost (2002), Materialism (Zarco, 2014), Key Opinion leader (Seo & Park, 2018), Social Media Usage (Choi & Seo, 2017).

Societal Hierarchy

Some consumers interested in indicating societal hierarchy will resort to conspicuous consumption (O'Cass and Frost 2002). Several other researchers including Wong and Ahuvia (1998), have suggested that factors such as prestige and success symbolism, wealth and achievement indication, image and status enhancement as intangible factors, relate to societal hierarchy involved in conspicuous consumption. Nagel and Holden (2002) argue that as the value of a conspicuous product increases, it leads to an improvement of an individual's standing in the societal hierarchy (Fitzmaurice and Comegys, 2006). However, Clark et al. (2007) suggest that little is known of societal hierarchy factors in the context of conspicuous consumption. Therefore, we can conclude that conspicuous consumption will improve standing in the Social Hierarchy.

Situational Social Occasion

Researchers have not directly examined the role situations play in influencing conspicuous

consumption (Graeff, 1997). Most studies measuring the impact of situations have used imagined situations (Quester and Smart, 1998). According to Solomon et al. (2002) situations associated with conspicuous consumption are based on characteristics of the person and of the product, whereby its effects can be behavioral and perceptual. Consumers seldom operate in a social vacuum; rather they continuously compare themselves with significant others when consuming conspicuous product and situations such as social occasions as marriages, life events, and other cultural and religious festivals, provide a perfect venue to elevate an individual's status (Clark et al., 2007). We can conclude that conspicuous consumption is specially planned for different situational social occasions.

Self-Monitoring Personality

Another factor that contributes to Conspicuous consumption is a self-monitoring personality. Self-monitoring reflects the self-control and self-presentation in front of significant others (Gould, 1993). Individuals high in self-monitoring ability modify their appearance and overall image according to the social situation thus affecting consumer behavior (Snyder and Gangestad, 1986). To consciously enhance one's image with significant others, individuals can monitor themselves to present themselves as others want them to be seen. Hence, self-monitors consume status-laden products to give the desired message and elicit desired responses thus influencing Conspicuous consumption (Lai and Chu, 2007).

Snob Effect

"Snob effect" considered as a function of personal, interpersonal, and social effects

factors that take into consideration personal and emotional desires when purchasing or consuming branded conspicuous products, but it also influences and is influenced by other individuals' behaviors (Mason 1995). It is considered as the situation, which is derived by the desire to own unusual, expensive or unique goods. Research reveals that a perceived limited supply of products increases consumers' evaluation of a product (Amaldoss and Jain 2005). Moreover, postmodernist ideas claim that consumers would reject the dominant values and everything that is normal (or is in the process of becoming normal), and desire to "do their own thing." It is this development that drives the need for uniqueness even further, encouraging consumers to interpret products differently, add meaning to them, and invent newer ways of self-expression and communication (Douglas and Isherwood 1996). These arguments are consistent with researchers that in Snob effects that "observations of consumers" expressed "need for uniqueness or distinct in conspicuous products (Tian, Bearden, and Hunter 2001). Consequently, we confirm that conspicuous consumption is significantly influenced by the snob effect.

Bandwagon Effect

"Bandwagon" occurs due to an increase in the consumption of the commodity by others (Leibenstein, 1950). The high demand for restaurant reflects the consumer desire, due to that, there is an increase in attractiveness. Thus, the consumer is known for their herd behavior and desire for social status (Becker, 1991). They purchase the conspicuous product to get identified with a particular group (Escalas & Bettman, 2005, Berger & Ward, 2010). The consumer engage in bandwagon process is

encouraged by self-concept and to affiliate with reference groups and to achieve status or rank within a social community (Kastanakis & Balabanis, 2012). Thus, it is very evident that the bandwagon effect influences the conspicuous products. We can conclude that conspicuous consumption is significantly influenced by the bandwagon effect.

Brand Associates

The branding in the case of conspicuous consumption is viewed into two perspectives—Management Controlled features and Market controlled features (Erdem and Swait, 1998). The management controlled brand features can be developed and managed through effective packaging and distribution together with fine-tuned promotion (O'Cass and Frost, 2002). The market-controlled features can be defined as those beyond the control of management (Hirschman and Holbrook, 1982). However, there is little empirical evidence relating to the impact of branding-related features on conspicuous consumption (O'Cass and Frost, 2002; Shukla, 2008). Therefore, it will be interesting to conclude that there is an effect of both management- and market-controlled branding features on conspicuous consumption.

Materialism

The pursuit of material possessions seems to be a prevailing behavior in the society these days such that business entities heavily invest in marketing activities intended to boost on the belief that the improvement in the quality of life resulted from the acquisition of material goods (Zarco, 2014). Materialistic consumers are more sensitive to materialistic cues of success and status (Topcu, 2016), and would place a priority on possession, acquisition, and

ownership (Belk, 1985). Materialism is also considered to have an association with conspicuous consumption in various cultures (Podoshen et al., 2011). Lewis and Moital (2016) also indicate that, in the context of luxury fashion products, high materialistic consumers are more likely to pursue a conspicuous consumption. Such a proposition is also supported by Zarco (2014) who claims that materialism arouses a preference for purchase for premium-priced tangible products that exhibit prestige and status. Hence, it can be concluded that conspicuous consumption is significantly impacted by materialism.

Social Media Usage

Social media permits individuals to exhibit their conspicuous consumption in an online platform to satisfy a wide range of social needs. This is by displaying the consumption and belongings associated with the intended self (Choi & Seo, 2017). Consequently, conspicuous consumption is generally influenced behavior intended to signal to others in the network (Choi & Seo, 2017). It is evidenced that the more an individual uses social media, the more they make an impulse purchase of conspicuous luxury goods (Thoumrungroje, 2014). Taylor and Struttin (2016) also claimed that conspicuous consumption can be accelerated by social media usage because it underlines the snob appeal of an individual's possessions, status or experiences. Therefore, it is evident that conspicuous consumption is significantly influenced by social media users.

Key Opinion Leaders

Key opinion leaders is an individual or a group of people who are perceived to be expert and knowledgeable of a certain product or service through their purchase or consumption

experience (Bertrandias & Goldsmith, 2006; Saito et al., 2015). The influential effects of reference group or a social group situated in the higher position (Sarathy, 2013), which construct a frame of reference on an individual's conspicuous consumption, is emphasized and supported by Shukla (2008) and Winkelmann (2012). Conspicuous products like fashion clothing were related to fashion opinion leadership (Clark et al., 2008). Peer pressure & opinion leaders often serve as the primary influential factors of purchasing decisions of conspicuous product. Opinion leaders seek the acceptance of others and are especially motivated to enhance their social status (Rose J 2010). Thus, we conclude that conspicuous consumption is significantly impacted by Key Opinion Leaders.

Objectives

Studying the phenomenon of conspicuous consumption stands well justified by its near universality and timelessness in contexts of consumer behavior, branding, marketing, and sociology. So far, most of the research has aimed at addressing conspicuous consumption and wealthier people, ignoring low-income consumers. The gap herein lies in the always-neglected studies to determine the factor's weights and ranking them that influence the conspicuous consumption of low-income consumers. The specific objectives that we intend to meet are:

1. To discuss the concept of conspicuous consumption, low-income consumers and the analytic hierarchy process.
2. To establish the factors that influence the conspicuous consumption in the context of sociology, consumer behavior, brand features, and marketing associates.
3. To determine their relative weightage of each factor as well as ranking them in the hierarchical manner of goals, objectives and attributes.

Methodology

The antecedents of conspicuous consumption are well established through literature review. The Four objectives were identified by the expert group as antecedents of conspicuous consumption in the city of Chennai, India. Based on the AHP research model, the framework is decided, which contains three levels—the goal level, the objective level, and the attribute level. The goal level refers to the conspicuous consumption of Low-income consumers in Chennai city, India. The objective level consists of four antecedents, Socio-Psychological, Consumer behavior Brand features and Marketing associates. Finally, the attribute level includes societal hierarchy, situational social occurrences, snob effect, bandwagon effect, management controlled brand features, marketing brand features, materialism, social media usage and key opinion leaders. Based on these attributes, a questionnaire called an AHP-designed questionnaire was developed.

Sample

The research study is carried out to 225 participants, where the questionnaire was given to them and filled in personal. The participants were workers, who earn lesser than basic salary (i.e.Rs.15, 000 per month) as per Indian Pay Commissions in the city of Chennai.

Findings and Discussions

The marketing associates at the objective level are highest followed by socio-psychological, brand features and consumer behavior. (See Table and Figure 1)

Table 1: The Weight Ratios of Objective Level

Antecedents	Weight	Order
Socio-Psychological	0.2667	2
Consumer Behavior	0.2044	4
Brand Features	0.2311	3
Marketing Associates	0.2978	1

Source: Author.

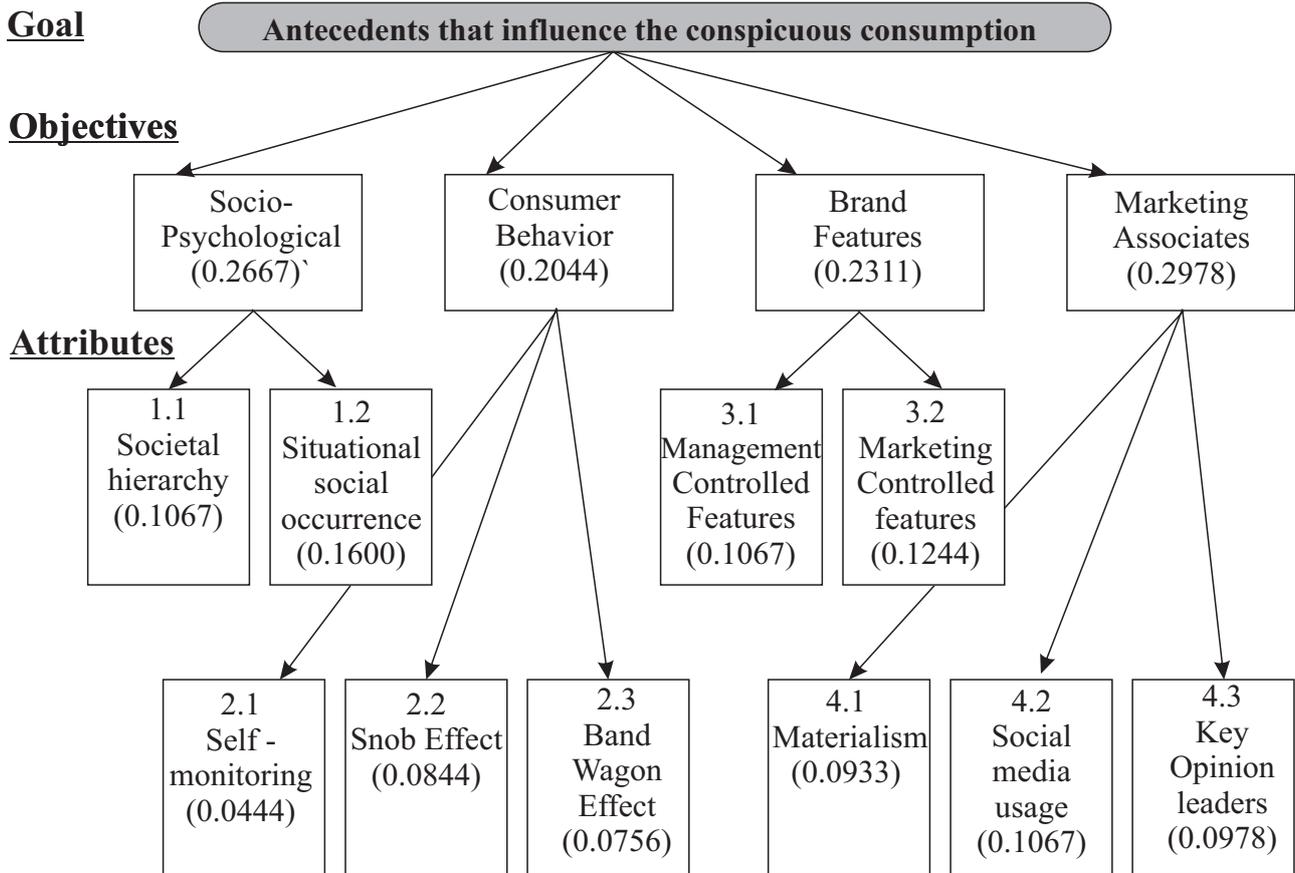


Figure: 1 The weight ratios of different levels of all antecedents that influence the Conspicuous consumption in decision making process.

In the conspicuous consumption process, we have found situational social occurrences are important in influencing. The social hierarchy was least contributor in terms of weightage in the decision making process as shown in Table 2.

Table 2: Ranked results of Pair-wise comparison for the Importance of Socio-Psychological Antecedents

Socio-Psychological Antecedents	Priority	Priority Weighted	Rank
Societal hierarchy	0.40	0.1067	2
Situational social occurrences	0.50	0.1600	1

Source: Author.

The snob effect is the main contributor in consumer behavior antecedents as shown in Table 3.

Table 3: Ranked results of Pair-wise comparison for the Importance of Consumer Behaviors Antecedents.

Consumer Behaviors Antecedents	Priority	Priority Weighted	Rank
Self-Monitoring Personality	0.22	0.0444	3
Snob Effect	0.41	0.0844	1
Bandwagon Effect	0.37	0.0756	2

Source: Author.

The marketing controlled features are slightly more contributors than management controlled features as shown in Table 4.

Table 4: Ranked results of Pair-wise comparison for the Importance of Brand Features Antecedents.

Brand Features Antecedents	Priority	Priority Weighted	Rank
Management Controlled Brand Features	0.46	0.1067	2
Marketing controlled Brand Features	0.54	0.1244	1

Source: Author.

Here, social media usage is the main contributor followed by key opinion leaders and materialism as shown in Table 5.

Table 5: Ranked results of Pair-wise Comparisons for the Importance of Marketing Associates Antecedents

Marketing Associates Antecedents	Priority	Priority Weighted	Rank
Materialism	0.31	0.0933	3
Social Media Usage	0.36	0.1067	1
Key Opinion Leader	0.33	0.0978	2

Source: Author.

Conclusion

Based on results, marketing associates antecedents at the objective level and Situational social occurrences at the attribute level is the highest. Market controlled brand features contributed as the second that influence the conspicuous consumption. The policymakers and marketing researcher should look into the facts of situational social occurrences is driving factors for the conspicuous consumption in Chennai city in the low-income consumer. It is a clear indication that academic researchers to have this insight to

look into situational social occurrences in conspicuous consumption in-depth study, especially for the low-income consumer.

Future Scope of the Study

The findings demonstrate that the key antecedents are situational social occurrences followed by market controlled brand features that influence the conspicuous consumption of low-income consumers in Chennai city, India. It is, therefore, suggested that the researcher should study the situational social occurrences and market controlled brand features, how it is

influencing the conspicuous consumption in low-income consumers, and also, compared with high-income consumers. Future studies could compare the antecedents that influence the conspicuous consumption in other cities in India as to the developing countries.

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Social Entrepreneurship in Asia: Moving towards a Structured Framework and Challenges

Mir Hossain Sohel*

Abstract

Entrepreneurial ventures addressing social issues have widely spread as a global phenomenon. The positive impact of social entrepreneurship on alleviating social problems has already been proven. As a newly evolved form of entrepreneurship with a keen difference from its commercial counterpart, social entrepreneurship encounters unique challenges. This study attempts to explore the barriers and policy challenges to social entrepreneurship development, especially from the Asian perspective. A sample of six social entrepreneurs were interviewed using an unstructured interview questionnaire. Common barriers include access to credit and other finance products, access to basic skills and technical knowledge, access to foreign capital and expertise, etc. The outcome of the study cannot be generalized to other countries, as the barriers and policy challenges are influenced by the political, economic, and social environment of the specific country. Governments can benefit from developing country-specific programs to identify such challenges to encourage social entrepreneurship. Using data collected directly from the social entrepreneurs, the study also provides a glimpse of the development of social entrepreneurship in countries like Bangladesh, India and Thailand; with similar economic roots but a political and cultural variation.

Introduction

Social entrepreneurship addresses the full range of development conundrum – economic growth, social development and environmental sustainability. Asia is uniquely positioned to suffer from challenges to these goals as it contains 60 percent of the world population with a high density of population, heightened vulnerability to economic downturns, social upheaval and environmental degradation.

In response, the social entrepreneurs in Asia have created diverse social enterprises in a variety of different sectors including education for the disadvantaged, food security, sanitation

and healthcare, affordable housing, microfinance, sustainable agriculture, clean energy and technology, and fair trade artisanal industry. The common feature across all social enterprises is the explicit commitment to social or environmental betterment.

The Asian social enterprises have a demonstrable and sustainable socio-environmental impact. Several social enterprises are also at a maturity level where they actively seek capital to scale up their positive impact. However, a lot of individual activity by itself is not enough. “A great product

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idea married to a noble mission is rarely enough to make meaningful progress in the face of massive social challenges like improving the lives and livelihoods of billions worldwide living in impoverished conditions”. An Asian Development Bank investigation in India, the Philippines, Kenya, Brazil, and South Africa reveals no shortage of market-based approaches that claim to be profitable or financially self-sustaining. On closer inspection, ADB found that many social enterprises are struggling financially and most serve a few thousand people, a handful of sand in the desert given millions living under the extreme poverty line. Only a small portion of market-based initiatives are reaching numbers of people commensurate with the scale of the problems they aim to address.

The demand for financial investment outstrips the capacity of current specialized investment infrastructure and available capital is therefore often unable to reach social enterprises. Despite the emergence of larger pools of capital for impact investing, social enterprises are often unable to access and utilize this capital. This gap indicates a need for a consistent institutional framework incorporating social enterprises and intermediary institutions to match the demand and supply side of the impact investments.

The study takes off from the recently finished 3-year Doctoral program in “Developing Social Entrepreneurship Ecosystem”, funded by Universiti Teknologi Malaysia and it also includes different empirical studies (some 20 case studies). The paper attempts to explore the recent developments of social entrepreneurship in Asia as well as identifying the barriers and policy challenges to social entrepreneurship development in Asia, especially in Bangladesh,

India, and Thailand. In doing so, it also attempts to explore the role of Government and International Organizations and the participation of supporting institutions in the development of social entrepreneurship in those countries.

Asian Development Bank associating with Impact Investment Shujog, Singapore researched the state of social enterprises in Asia. To date, this is the only published material found by the researcher on the structure and present scenario of Asian social enterprises. The researcher also exchanged views with several social entrepreneurs from India, Philippines, Thailand, Korea, and other countries to get an overview of the scenario at the Social Entrepreneurs Forum held in Singapore, 2012. The below-mentioned findings regarding social enterprises in Asia are the result of the above said research by ADB and the round table discussion of the social entrepreneurs during the Social Entrepreneurship Forum 2012 in Singapore organized by Impact Investment Shujog. The researcher attended the round table discussion and recorded and transcribed the whole discussion to address the present scenario of social entrepreneurship in Asia. The round table discussion can also be found at you-tube with keywords – impact forum 2012 and state of social entrepreneurship in Asia. The round table discussion was led by Mr. Asif Saleh (Head of Communications, BRAC, Bangladesh) and the participants were Weina Lee (Head of Research, Impact Investment SHUJOG, Singapore), Neera Nundy (CEO, DASRA, India – provides financial and legal services to social enterprises), Lee Seung Hyun (SK Happiness Foundation, Korea), Jack Sim (CEO, World Toilet Organization, Singapore) and Wolfgang Hafenmayer (LGT Venture Philanthropy).

State of the Market

In India, the market intermediary interaction with social enterprises is strongly concentrated. The mature and sizeable social entrepreneurship sector of India attracted intermediaries with ample of opportunities – both through their CSR support and as attractive revenue streams. In contrast, Bangladesh and Thailand's social entrepreneurship markets are small while Singapore has a larger number of regionally involved market intermediaries and is thus disproportionately involved in the Asian SE marketplace concerning the market size. According to intermediaries are interested and willing to engage with the social enterprises operating in the more matured SE sector.

Many market intermediaries assist social enterprises in capacity building exercises e.g. providing financial and accounting advice, as well as leveraging their institutional relationships. Many specialized financial advisory institutions like Intellectap, Unitus, Grameen Financial and the Institute for Financial Management and Research are dedicated to developing social enterprises. The larger traditional intermediaries, on the contrary, are comparatively less supportive in social entrepreneurship development. The traditional intermediaries perceive the SE sector as of low revenue potential and as many of the deals in the SE space are small in size (\$3 million to \$10 million) are considered as high risk. This perception of the SE market shows the general lack of SE market understanding on the part of many intermediaries, where the reality is that there is significant revenue to be generated through participation in the SE marketplace. Approximately 4 billion people are living under the extreme poverty line making it an attractive market for the social entrepreneurs to pursue with the products or services fulfilling the unmet

basic needs of those people.

The biggest barrier to sustainable market-oriented growth of SEs is, therefore, the lack of awareness and knowledge among the framework partners about the present opportunities and how beneficial they can be for the growth and scalability of the social enterprise.

Role of the Government and International Institutions

The government plays an important role in promoting sustainable social entrepreneurship which is evident from the development of social entrepreneurship sectors in the different countries . Government agencies, regulation, and backing from international institutions play a crucial role as a support mechanism to the framework and catalyst in early-stage development of the social entrepreneurship sector. In Bangladesh, India and Thailand, governments have contrasting approaches to social enterprises, and this contrast is reflected in the different levels of SE sector development.

In general, Asian governments are extremely supportive of the MSME sectors. These enterprises are seen as the engine of growth in many of the Asian countries. On the other hand, many of the social enterprises, maybe except India, are very much deeply rooted in the non-profit sector - they are mostly NGO based organizations. These enterprises still benefit a lot from the existing funding sources that are out there for them. And there are also some countries like the Philippines, Cambodia where NGOs are benefitted from well-implemented tax incentives from the government. These supportive incentives are usually much better implemented for the NGO sector rather than for

the SME sector. That's why a lot of organizations in Asia are still deeply rooted in the non-profit sector.

Then again the increasing trend of social entrepreneurship – NGOs that are doing social welfare – beginning to realize that donor money is drying up. So they are being forced really to look for the market for new sources of funding and that's why a new trend of social enterprises have emerged – hybrid social enterprises. Today's social enterprises have simplified the concept of hybrid entrepreneurship – where the non-profit section of the company is doing the social impact work and the other for-profit section is funding the non-profit section of the business.

Bangladesh has traditionally favored a larger role for the state and greater regulation has helped non-profit enterprises gain the support of local administration and government agencies. The government has also persisted in promoting the development of business ventures with a social focus. The leading businesses in Bangladesh are the leading social enterprises, but they are still rooted in the non-profit sector.

The Bangladeshi context contrasts with that in Thailand. Thai SE market is less matured and dominated by smaller social enterprises with the large donor-funded charities are working alongside, the divergence of for-profit enterprises and charitable work in policy is reflected in the domestic SE market. To foster the escalation of the SE sector, the Thai government established the Thai Social Enterprise Office (TSEO) to develop and encourage the growth of the SE sector in Thailand. Now there is a vibrant SE market with

emerging new and innovative social ventures with ample accommodation in policy. Interaction between framework players and smaller social enterprises likewise reflects government policy and most active engagement seen between small, specialized institutional framework players such as incubators and emerging social enterprises.

Government policy and support from international institutions can also catalyze innovation and accommodate growth in the SE sector. It is evident from the policy brief presented by Impact Investment Exchange, Asia to the Finance Secretary of the Bangladesh Government highlighting recommended policy changes to facilitate easier access to foreign investment for local social enterprises. In India, policy reforms have already been introduced to allow revenue-generating models for social enterprises to ease norms for foreign investments and allow social enterprises easier access to capital.

Role of Supporting Institutions in the Framework

The supporting institutions in the framework consist of the intermediaries and facilitators providing the support services for the growth of the SE sector e.g. academic and research institutions, accounting firms, advocacy and interest groups, credit rating agencies, financial advisory firms, legal firms, and private sector CSR initiatives.

Bangladesh

Bangladesh has a strong SE sector with high levels of interest among the framework partners, although lack of incentives abstain new partners to participate fully in the

institutional framework. Several social enterprises in Bangladesh are very large with social enterprises like the Grameen Bank, BRAC dominating the market. The SE sector in Bangladesh is comparatively large in comparison to its institutional framework partners. Due to this, most of the social enterprises in the space are largely revenue-oriented, with some participation moving into the blended revenue – CSR space or Hybrid enterprises.

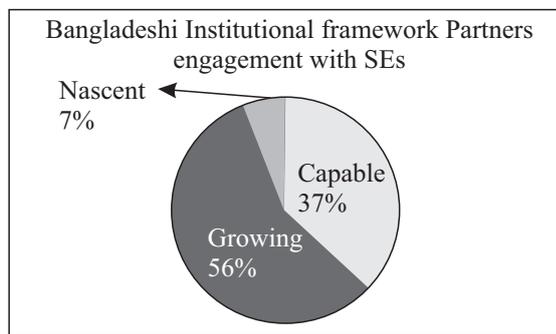


Figure I *Bangladeshi Institutional Framework Partners engagement with SEs (Source: Asian Development Bank (2011))*

Figure I depicts that there is some development among academics and accountants engaging directly with the SEs in Bangladesh. The research by ADB reflects a huge gap in the accounting services required by the medium and large-sized social enterprises in the country. The impact of the mature Bangladeshi social enterprises as pioneers in the field is drawing significant support and interest from academic and research institutions. But there remains a gap in the level of engagement found among financial advisors, law firms and credit rating agencies. ADB found the overall broad involvement of the framework partners with the social enterprises in Bangladesh quite satisfactory but several organizations' reluctant responses to get involved with the growing SE

industry were also recorded. Although these sorts of reluctant organizations are very small in number, these nascent framework participants all belong to the financial advisors and accounting services which points to the disengagement between certain traditional framework intermediaries and SE movement. The result may seem discouraging, but most of these organizations are small-sized accounting and advisory firms which lack the necessary capabilities to facilitate services for social enterprises.

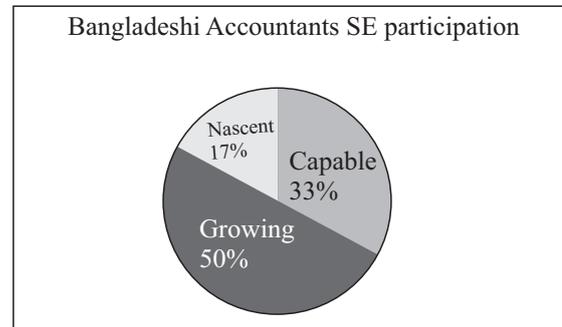
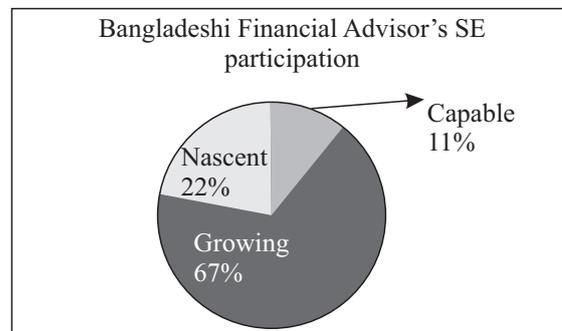


Figure II *Financial Advisors and Accountants participation in the SE sector of Bangladesh (Source: Asian Development Bank (2011))*

The ADB research also found that Bangladeshi institutional framework participants have a strong interest in working with the social enterprises but lack of adequate incentives refrains them from scaling up their participation. The institutional framework partners don't intend to participate in the SE space without some revenue source incentives.

Unlike in other countries, the partnering intermediaries cannot provide the professional services in reduced or no-fee as the rates and margins are extremely low already. In spite of all these difficulties, the Bangladeshi SE market still seems lucrative to a small number of large framework partners and social enterprises. Large framework partners e.g. Standard Chartered, CitiBank have greatly benefitted from their participation with large social enterprises like BRAC, Grameen, and Shakti.

In Bangladesh, the framework partners are interested in working with the social enterprises, a good number of matured social enterprises exist and there is little evidence of market resistance – but still, the Bangladeshi SE sector is not growing at the rate it is expected. Bangladesh can attempt to develop an effective social entrepreneurship institutional framework either through new regulation and policy changes or market restructuring or incentivizing the institutional framework partners to encourage more involvement in the SE sector.

India

India has one of the most developed and matured SE sector in the world and is known as one of the first to have the successful for-profit social enterprises in the arena. The institutional framework partners are well-known to the concept of social entrepreneurship. Although India has some regulatory limitations regarding the participation of Non-Indian International investments in the SE sector, the Indian SE market has a large number of capable and highly interested institutional framework partners and they are growing in their integration with the social enterprises. The following figure III shows that the institutional framework partners' engagement is mostly with the newly evolved

and growing social enterprises accumulating 66% of the market.

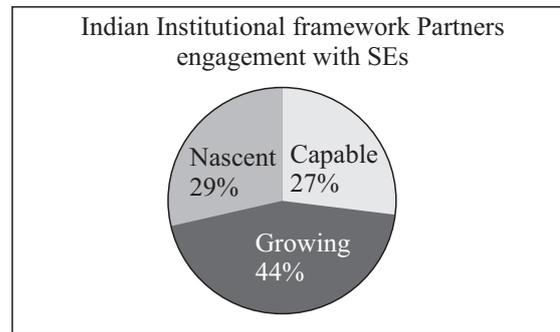


Figure III Indian Institutional framework Partners engagement with SEs (Source: Asian Development Bank (2011))

There are a wide variety and different sizes of social enterprises in India – ranging from small one-village startups to the mammoth microfinance organizations. It proves that there is a wide range of motivations for different sizes of social enterprises and framework partners . Lawyers, accountants, and academic institutions – all play a significant role in making the Indian SE market a lucrative and successful one in Asia.

Figure IV depicts a high level of participation of the framework partners like lawyers, accountants and financial advisors, despite Shujog encountered the most resistance from the nascent sectors. This occurs due to the specialized nature of most of the social enterprises and partly due to the smaller size of most of the deals. A more mature SE market and several functioning sustainable social enterprises with larger deals and financial investment can lure the larger partners to join the SE institutional framework and thus scale up the total possible benefit for the social enterprises.

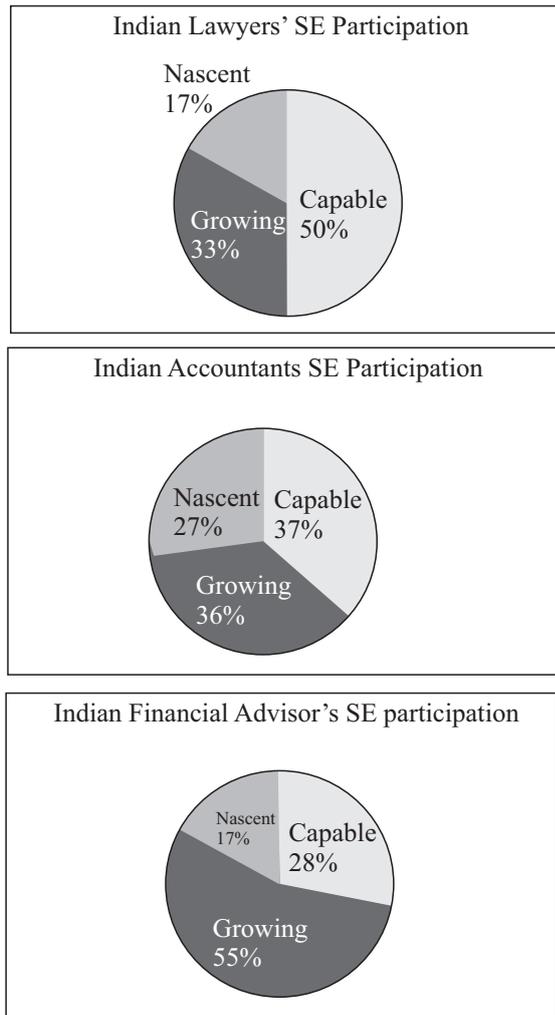


Figure IV Supporting Institutions' participation in the SE institutional framework of India. Source:(Asian Development Bank (2011))

The majority of the institutional framework partners interested to work with the growing or nascent social enterprises in India are the financial advisors and accountants. Crucially, the presence of credit rating agencies is still required and Shujog hopes the credit rating agencies will get involved with the social enterprises and plug the gap in the sector through providing a much-needed service (Lee, 2012). There is a strong domestic investment in the SE sector of India, but the domestic capital alone may not sustain the requirement indefinitely and therefore, regulatory changes to accommodate foreign investors are necessary.

Thailand

Thailand is renowned for its strong 'giving' culture which posits an encouraging force in the field of social welfare and societal development. It also creates disengagement between social impact and corporate profit, which is also evident from the fact that social entrepreneurship in Thailand is still under magnifying glass due to the strong conceptual separation between "doing good" and "generating revenue". It is strongly believed in Thailand that one should not make money off the poor and it is unethical for the social enterprises to make a profit.



Figure V Thailand Institutional framework Partners engagement with SEs (Source: Asian Development Bank (2011))

The overall participation of the Thai institutional framework partners in the SE sector is still growing or nascent. Although there are a good number of academic organizations, incubators and consulting firms are highly interested in the SE sector, but the motivation among lawyers, accountants and financial advisors is very limited. Most of the institutions' interest and engagement in social entrepreneurship remains in the field of research and advisory, with some consulting services emerging (Lee, 2012). Due to the small size of the Thai SE sector, there is a very little opportunity of maximum output for Thai social

enterprises and framework partners. The Thai framework partners engagement with social enterprises mainly motivated by CSR considerations.

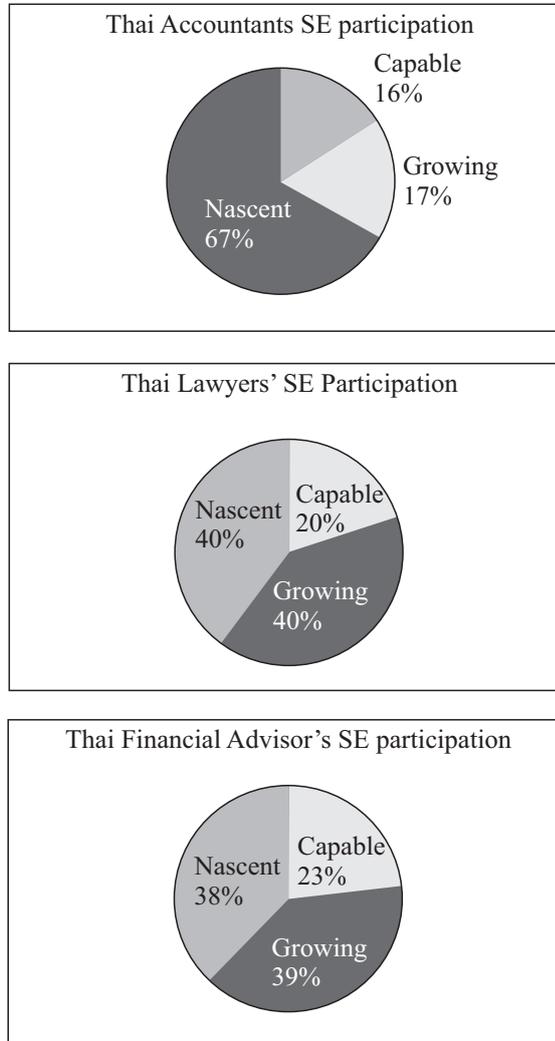


Figure VI Supporting Institutions' participation in the SE institutional framework of Thailand. Source: (Asian Development Bank (2011))

The engagement of Thai framework partners with the SE sector is still at the nascent stage evident from the numbers available from the ADB research. Although the lawyers and financial advisors' are interested to participate and willing to work with the social enterprises in near future, the majority of the accountants

respond reluctantly to participate in the framework and work with the social enterprises.

The Thai SE market is a complete contrast to the Bangladesh and India SE market in terms of the size of the social enterprises and involvement of the framework partners as facilitators to the social enterprise development. The majority of the Thai social enterprises are small in size which represents a 'not-so-attractive' opportunity for the partners to involve in the institutional framework development. The numbers from the research points that Thailand SE market is at its early stage, however, the positive trends indicate that it has great potential to be successful SE market soon.

Social Entrepreneurship Challenges in Asia
Barriers to Social Entrepreneurship Development

Access to credit: Micro-credit scheme was introduced to mitigate the market failure caused by the poor people's lack of collateral and less access to traditional financing for investment. The objective was to create alternative income-generating activities for the poor to address the problems of poverty, inequality and environmental sustainability as well as creating a little social value. Conventional financing institutions were not interested to get involved in this sector due to the high transaction costs of making and securing the repayment of the small loans dispersed to the poor. Organizations like Grameen Bank, BRAC have contributed significantly to overcoming those barriers and established a micro-credit scheme as a mode of developing the lives of the poor. The 'social enterprises' are recognized as the 'missing middle' in the system – which is too large for the micro-credit scheme to satisfy and too small for

traditional financing to attract. Such small social enterprises are essential for creating social value and organizations like BRAC, ASHOKA, SHUJOG are researching on developing financial products to suit their needs.

Access to other financial products: Growth in financing opportunities needs to be accompanied by growth in access to other financial products e.g. insurance. Small scale social entrepreneurs face the risk of uninsured risk as if they borrow to invest in a business that then fails due to some external factors such as flood or natural calamity. Even the informal village-level mutual insurance hardly works as all the members of the village face the identical risk – for example, if a natural calamity occurs then it would affect each member of the mutual insurance scheme simultaneously. The government should encourage the non-financial institutions and insurance companies to expand their offerings to micro-insurance and micro-savings.

Access to basic skills: The micro-credit movement and the arising social business movement have reduced the barrier of access to financial products to a certain extent whereas the social entrepreneurs still facing the limitation in accessing the basic skills of developing a business venture. Lack of basic skills in accounting, business planning, legal activities often scale down their credibility with donors or lenders.

Access to information: The absence of social entrepreneurs association often limits their access to social networks which are not only important sources of information and business opportunities but also sources of non-

conventional funding. In recent years, steps are being taken already to form social entrepreneurs association in countries like Malaysia, Thailand and Singapore. But countries like Bangladesh and India still lacks behind.

Access to technical knowledge: Social entrepreneurs in Asia are offered ample opportunities to use new technology especially in the field of sanitation, clean and renewable energy, to promote sustainable economic development (Lee, 2012). Although social entrepreneurs have innovated several financing mechanisms based on third-party financing, carbon credit to fund such opportunities, still they lack technological or financial expertise to implement them. It is found that most of the social entrepreneurs and people likely to engage with think tanks and donors are from public policy and economics background and are very much keen to solve through economic and political mechanisms rather than using technology and innovative financing mechanisms.

Access to foreign capital and expertise: Research shows that the non-residential members of the subcontinent diaspora are willing and support the economic development of their countries particularly in their home areas, through identifying opportunities, providing capital or mentoring. However, they lack the information and ways to identify worthy recipients. Government policies on foreign direct investment in these countries impede the transfer of money from abroad and the transaction costs are high for foreign direct investment.

Policy Challenges to Social Entrepreneurship Development

Bangladesh: The Bangladesh economy has been growing at more than 5% per year since 2003, achieving solid growth during the 'economic crisis' (CIA World Fact Book, 2012). With a solid social entrepreneurship growth, the key policy challenge is to overcome the barriers of entrepreneurship development, ensuring the benefits of the growing reach of marginalized people, and ensuring economically, socially and environmentally sustainable growth.

Still, social entrepreneurs consider a lack of start-up financing as the premium challenge to social venture development. Although some entrepreneurs are increasingly getting involved in ventures like insurance, micro-savings, building social networks and information dissemination, technological expertise; still the persistent gap in start-up financing for converting the micro-level social ventures to a self-sustained venture prevails the same. The scenario is the same with the sectors like skill development training, mentoring and fostering links with other business ventures.

The regulatory policy of the Bangladesh Government refrains the mission-driven for-profit organizations getting access to the massive development of foreign funding entering Bangladesh. The priority is given to the mission-driven non-profit ventures and charities. The restrictions on capital flows to social ventures and dividend extraction across national boundaries, as well as barring them to raise debt capital are examples of the policies that discourage investment and hamper intermediary support in the social entrepreneurship sector. However, entrepreneurs are working on innovative organizational models and engaging them to

serve the marginalized people and slowly evolving a new social entrepreneurship spectrum.

India: India has one of the most developed and well-organized SE sectors and is recognized to be one of the premier countries to have successful for-profit SEs. Until recently the social ventures had to be structured as trusts, co-operative societies or section 25 companies (Indian Companies Act, 1956) under the regulatory policies of The Trust Act of 1882, the Societies Registration Act of 1860, section 25 of the Companies Act of 1956, section 12A and 80G of Income Tax Act, and the Foreign Contribution Regulation Act of 1976.

However, under the New Economic Policy, India is liberalizing foreign investment incrementally, policies for technical collaboration and joint ventures, and formalizing institutional investors and venture funds in the class of business investors. Regulations have been formulated to allow the micro-finance activities to get foreign investment since 2005 (Reserve Bank of India, 2005), and the small and medium enterprises to invite initial public investment in 2010 (Securities and Exchange Board of India, 2010).

Although government is making efforts to address the shortcomings, still some regulatory hurdles prevail on the way of social venture development – i) foreign investments in the form of proprietary or partnership structure require prior government approval, ii) borrowing in foreign exchange cannot be used as working capital, iii) regulations governing the registration and operational procedure, and pursuing new initiatives of the social ventures pose operational constraints (Nundy, 2012).

Since 2010, several Government departments – Health & Social Welfare, Women and Child Development, Social Justice and Empowerment, and Council for Advancement of People's Action and Rural Technology – have initiated the NGO Partnership System collectively to develop a networking platform among different bodies pertaining social entrepreneurship development. Accordingly, the social ventures have also developed revenue-generating models to become financially sustainable as commercial enterprises, developing ways to access the foreign investments as equity and loans by including the element of financial return on it and adopting mainstream avenues for greater flexibility in their business models and mission.

Thailand: The Thailand Investment Market is regulated under two government policies – The investment Promotion Act of 1977 and the Foreign Business Act of 1999. The Foreign Business Act prohibits the foreign investment to enter three specific Thai business sectors – i) businesses related to primary natural resources-based industries, ii) businesses of national security, art and culture, and iii) businesses relating to accounting, legal services, and engineering where Thai nationals are not yet capable to compete for the foreign nationals to give them an edge of advantage. Still, there is an opportunity for both the foreign and domestic investors to get involved in the businesses listed in the 2nd and 3rd category after getting the approval from the Board of Investment (BOI), though the process of approval, according to the investors, known to be very time-consuming with unpredictable outcomes .

However, the government has taken the necessary steps to develop a solid foundation of

social entrepreneurship in the years to come. In 2007, a change in the Foreign Business Act granted the overseas investors much more flexibility in investing allowing them to invest up to \$5 million and \$50 million in the stock markets. Atchaka Sibunruang, the then Secretary-General of the BOI, stated that Government and BOI both are considering pushing regulatory change, especially tax exemption law, developing an information network for the social entrepreneurs and thus developing a trend towards trade and investment liberalization.

Conclusion & Future Research

The study explores the current scenario and participation of supporting institutions in the development of social entrepreneurship in Asian countries. It also identified the barriers and policy challenges towards the development of social entrepreneurship. While some similarities were found among the entrepreneurs studied, there were some noteworthy differences, too.

In examining the barriers, 'access to finance' was the highest-rated problem in all three countries. Also, there seemed to be general agreement that lack of skill and technical knowledge was impediments. Bangladesh, India and Thailand will need to promulgate policies to ensure the social ventures access to financing. To create a more vibrant social venture sector, they all need to work with academic institutions and business organizations to offer training programs to focus on business knowledge and management and technical skill.

Issues identified for future research in this article are – i) how social ventures can ensure the double bottom lines i.e. social change and economic gain, ii) influence of social and personal networking in achieving social

venture's mission, iii) understand how social ventures foster innovation and inclusiveness and bring positive social change, iv) developing performance measurement tools for social ventures. Clear and broader identification of the fundamental issues raised in the article will enable to establish social entrepreneurship as a separate field of study.

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A Study on Positive Usage Pattern of Mobile Apps among MBA Students

Sreevas VTK*

Abstract

In this technology era, the mobile phone is a product that fulfills many utilities. The younger generation is exposed maximum to both merits as well as demerits of mobile phones. However, achievement-focused youth can make maximum benefits of various services available through mobile phones. At the same time, those lacks in vision and objectives in life may be spoiled through negative usage of mobile phone services.

Management is one discipline that demands to inculcate both intrapersonal as well as interpersonal behavioral qualities among its aspirants. A management aspirant required making the best use of available resources and technology in whatever form it is available within constraints towards achievements of his personal as well as institutional growth. This study is carried out with a prime objective of identification of various apps used by MBA aspirants in Bangalore which are instrumental in their intellectual growth, helpful in the learning process, saving valuable time for various activities. Primary data has been collected from B Schools of Bangalore and simple statistical tools are employed to analyze data.

Introduction

The commercialization of Smart Phones was much faster in the second decade of the 21st century by replacing so many products. In India, most people have been able to replace their digital cameras and MP3 players with their Smart Phones. Smart Phones can also be utilized as a substitute for the watch, calendar, torch, etc. Moreover, various mobile apps can be utilized for various purposes which include digital payment apps, academic learning apps, news reading apps, travel planning apps, music listening apps, planning schedule apps, expenditure management apps etc.

Mobile learning has been claimed as the future of learning (Bowen & Pistilli, 2012) and an examination of this claim leads to questions of how institutions are promoting mobile initiatives, what the mobile profile of their staff and students is, and whether their initiatives are progressing learning technology. Technological advances in recent years have been quickly adopted by many academic researchers, for example, computer-assisted data analysis packages are now routinely recommended or employed in research (Goble, Austin, Larsen, Kreitzer, & Brintnell, 2012). New applications continue to proliferate and their access is made easier through the increased usage of mobile

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devices such as smartphones, tablet computers and the availability of WiFi and cloud-based computing. These technologies enable educators and researchers on desktop PCs to synchronize real-time and large volumes of data from mobile apps. Literature in the field is also increasingly suggesting that mobile devices can be valuable in higher education for such activities like gathering and using information, accessing content, promoting communication, collaboration and reflection (Bowen & Pistilli, 2012, Beddall-Hill, Jabbar & Al Shehri, 2011). According to (Rossing, Miller, Cecil, & Stamper, 2012) mobile learning began and shows the opportunities to the student as well as professional also.

An app can extract content and information from the internet in a similar fashion to a website, but it can also download the content so that it can be utilized later in the absence of an Internet connection which is a great advantage. So apps that do not need internet connection can be used "anywhere and everywhere" i.e. app can be used offline. In short Smart Phones promises infinitive utilities that can be carefully employed towards personal and/or institutional growth and objectives.

The positive utilities of mobile phone apps are common for all. But management aspirants can make better usage of mobile phone apps since they are very clear about optimizing objectives that are maximizing all positive goals and minimizing negative elements. There are so many studies conducted in this regard. Few such relevant studies are reviewed.

Review of Literature

The research literature on using mobile apps for research purposes is sparse. The field of mobile computing and the academic environment has been well explored from a range of perspectives (Beddall-Hill, Jabbar & Al Shehri, 2011; Fan, Radford & Fabian, 2016; Kukulska-Hulme, 2014; Kukulska-Hulme, Pettit, Bradley, Carvalho, Herrington, Kennedy & Walker, 2011). Several studies have been conducted on the selection, use or development of mobile apps by or for libraries (Wong, 2012; Hennig, 2014; van Arnhem, 2015). These apps have focused on the delivery of information resources to handheld devices, or communication of information about the library and its services. A study by Adegbiya et al. (2013) showed that most students in Nigeria used the internet to access Facebook, World Wide Web and search engines, most used it for messaging, a social interaction activity.

Subhash Jha (2013) in his study titled 'Understanding Internet Usage Pattern among Students in the Northeastern States of India,' he points out various factors that affect internet usage and how marketers can segment accordingly. 'Study on Mobile Usage Pattern' among college students in Kerala by Prasad (2014) identified six gratifications through factor analysis - the most salient gratification was 'time pass and information', followed by 'social interaction', 'entertainment', 'education, 'IT application' and 'Financial Benefit', in that order. (Malasi, 2012) studied the product influence on mobile phone preference wherein it was concluded that students are in a position to differentiate the offerings and hence purchase those which satisfy their needs. (Malviya & Dr. Saluja, 2013). (Qadri, Abubaka, & Ibrahim, 2015) mobile usage trends have dramatically

increased post smartphone introduction in the market among the university students due to the availability of high speed and low fare internet service. The other facilities being loads of free messaging and cheap smartphones. (Bhutia, 2016) College going students are moderately addicted to mobile phones. The Smartphone has become an essential part of life and features like brand, social image, technology and durability are playing a major role in the buying decision of the consumers. (Alson & Misagal, 2016). Students socialize through smartphones and are bordering towards learning process-impairing type. They do not use it for emergencies. (George, Saif, & Joseph, 2017).

Research Gap

There is so much research indicating both the positive and negative effects of the increasing use of mobile apps among undergraduate and postgraduate students. Most of the research found comparatively negative effects are more by getting addicted to social media (Andreassen & Pallesen, 2014, Balakrishnan & Shamim, 2013; Błachnio, Przepiorka, Senol-Durak, Durak, & Sherstyuk, 2017; Kuss & Griffiths, 2011; Tang, Chen, Yang, Chung, & Lee, 2016; Zaremohzzabieh, Samah, Omar, Bolong, & Kamarudin, 2014), by extensive use of mobile gaming (Björk and Holopainen, 2004; Cook, 2010; Kelle et al., 2011; Kiili and Ketamo, 2007).

Whereas there are some research studies make out how mobile apps help improve both the learning and research environment (Richardson and Lenarcic 2008, Yeap, Ramayah, and Soto-Acosta (2016). Since Management is a course shaping future managers, how positively management aspirants can make use of the rising trend of mobile apps are to be

investigated. This study examines the current scenario of making use of mobile apps by management aspirants.

Statement of Problem

Management aspirants need to make the best use of all favorable mobile apps available towards the acquisition of knowledge, skill improvement, enriching potential by minimizing the mobile apps leads into a waste of time and unproductive purposes. The current scenario of using mobile apps needs to understand to design way forward.

Objectives of the Study

- To understand leading apps under use among MBA aspirants.
- To outline the contribution of social media apps towards motivation for learning and related achievements
- To suggest a management aspirant community based on research findings

Research Methodology

This study is an exploratory study by making use of primary data by taking into consideration similar studies and findings.

Sampling

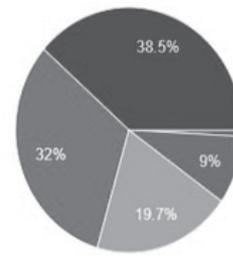
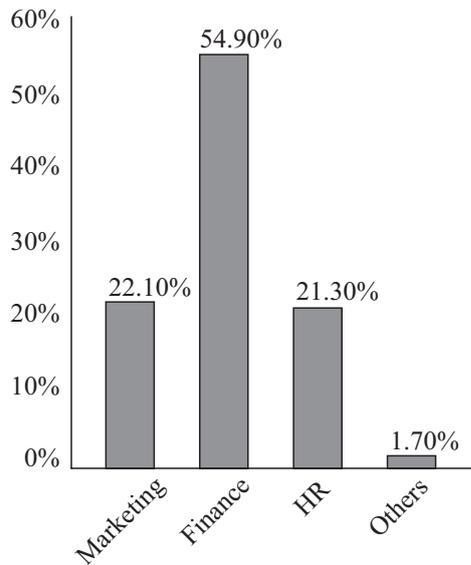
Sample size of 122 was selected from MBA Students in Bangalore. The sampling method was convenience and snowball sampling. Both boys and girls were selected for the study.

Results and Discussion

Demographic Attributes

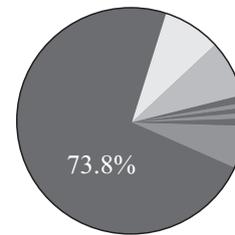
Sample consists of 122 respondents who are

currently pursuing MBA in Bangalore under Bangalore University. Data comprises 42 females which are 34.4% and 80 males which are 65.6%. The majority of the respondents belongs to Finance specialization i.e., 54.9% followed by Marketing, Human Resource, Others i.e. 22.1%, 21.3%, 1.7% respectively.



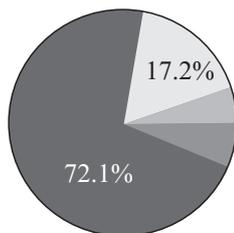
- Less than 30 minutes
- 30 minutes to 1 hours
- 1 hour to 2 hours
- 2 hours to 3 hours
- More than 3 hours

Apps Used: Most of the students realize they are using Social Media Apps more per day.



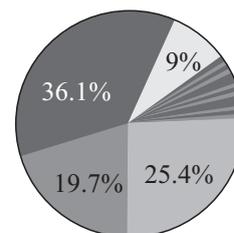
- Gaming apps
- Social media apps
- Academic utility apps
- Not applicable
- Youtube / documentary
- TV
- Youtube
- All things

Use of Mobile: The majority of MBA Students possess one Smart Phone or Tab i.e., 72.1% followed by 17.2% of students occupy One Smart Phone along with a basic set.



- Only Single Basic Handset
- Only Single Smart Phone or Tab
- Only Smart Phone or Tab with Basic Set
- More than 2 Smart Phones and/or Tabs

Preferred news reading apps: The most preferred news-reading app is times of India i.e. followed by Daily hunt i.e. 19.7%.

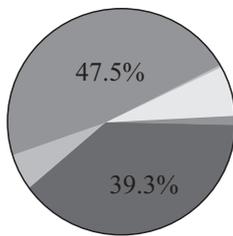


Usage Per Day: It is very clear that the usage rate of mobile phones among MBA students is very high. 38.5% students realize they are using mobile phones more than 3 hours per day. 32% of students believe they use mobile in a day between 2 to 3 hours.

- Economics Times
- Dailyhunt
- Times of India
- Money Control
- Not Applicable
- BBC
- Greater Kashmir
- Hike

Preferred document management apps:

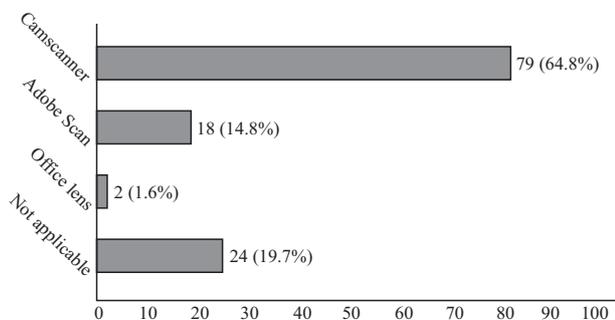
Students are using various document apps which will be complementary to their learning process. As per data, Microsoft is leading followed by the WPS office.



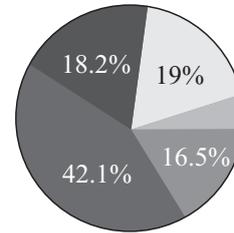
- WPS Office
- Polaris Office
- Microsoft
- Not Applicable
- Office suit

Preferred scanning document apps:

Cam scanner is popular among students with a usage rate of 64.8% followed by adobe scanner i.e. 14.8%



Views on hobbies are replaced by mobile phones: The majority of the sample believe hobbies are replaced by mobile phones ie nearly 60%.

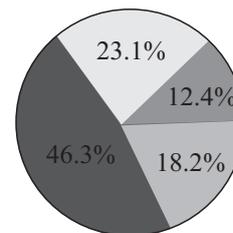


- Strongly agree
- Agree
- Neutral
- Disagree
- Strong disagree

Views on the productive use of mobile phones during travel:

During travel, everyone is using mobile phones. People's increasing use of mobile devices such as smartphones in everyday life and while traveling potentially transforms the travel experience (Wang & Fesenmaier, 2013; Wang, Xiang 2014, & Fesenmaier, 2014).

64% of the sample had an opinion that traveling time can be engaged productively by using learning apps, news reading apps, etc.

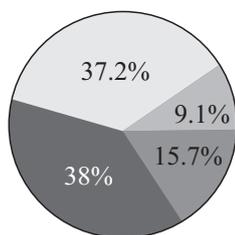


- Strongly agree
- Agree
- Neutral
- Disagree
- Strong disagree

Addiction to social media: Social media addiction is associated with a host of emotional, relational, health, and performance problems (e.g., Echeburua & de Corral, 2010; Kuss & Griffiths, 2011; Marino, Finos, Vieno, Lenzi, & Spada, 2017; Marino, Gini, Vieno, & Spada,

2018). Social media addiction can be viewed as one form of Internet addiction, where individuals exhibit a compulsion to use social media to excess (Griffiths, 2000; Starcevic, 2013). Individuals with social media addiction are often overly concerned about social media and are driven by an uncontrollable urge to log on to and use social media (Andreassen & Pallesen, 2014). Studies have shown that the symptoms of social media addiction can be manifested in mood, cognition, physical and emotional reactions, and interpersonal and psychological problems (Balakrishnan & Shamim, 2013; Błachnio, Przepiorka, Senol-Durak, Durak, & Sherstyuk, 2017; Kuss & Griffiths, 2011; Tang, Chen, Yang, Chung, & Lee, 2016; Zaremohzzabieh, Samah, Omar, Bolong, & Kamarudin, 2014). It has been reported that social media addiction affects approximately 12% of users across social networking sites (Alabi, 2012; Wolniczak et al., 2013; Wu, Cheung, Ku, & Hung, 2013).

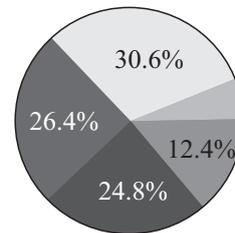
The current study examined the self-awareness of respondents regarding the level of addiction to social media. It is found 53.7% of respondents realize they are addicted to social media.



- Strongly agree
- Agree
- Neutral
- Disagree
- Strong disagree

Getting involved in unnecessary discussions:

Nowadays social media acts as a platform to express anyone's view about the incident happening in the environment. Huge discussions are happening about various incidents at any particular point in time. It is a common tendency for people to get involved in such discussions. As per the survey, 37.2% of respondents realize they are getting involved in unproductive discussions happening in social media.



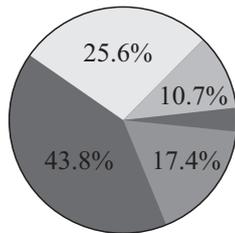
- Strongly agree
- Agree
- Neutral
- Disagree
- Strong disagree

Getting motivated by thoughtful messages in social media:

There are circulations of so many thoughtful messages through social media. The social media act as a substitute for so many good books and inspirational talks. Most of the youth are getting inspired so many such valuable thoughts. 65.2% of respondents agree (14% out of them strongly agree) that they are getting motivated or inspired through social media.

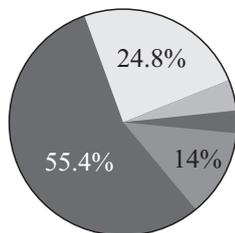
- Strongly agree
- Agree
- Neutral
- Disagree
- Strong disagree

Getting wished on special days in social media: Social Media makes special days like birthday, marriage anniversary, engagement, etc. of people more colorful and celebratory. The survey depicts that 61.2% (17.4 % out of them strongly agree) of respondents like to be wished on their special days.



- Strongly agree
- Agree
- Neutral
- Disagree
- Strong disagree

Getting inspired by the achievements of friends and relatives through social media: Due to social media, most of the friends and relatives are in touch with each other. A famous quote “Not at sight, not at mind” becomes irrelevant nowadays because people are in touch and knowing each other. As per the survey, 69.4% of respondents agree (14% out of them strongly agree) that various achievements in education and job motivate or inspire them.



- Strongly agree
- Agree
- Neutral
- Disagree
- Strong disagree

Findings and Recommendations

Findings

It is found that everyone has a mobile phone out of which more than 95% of management students hold a Smartphone. The usage rates of mobile phones per day are too high i.e. 3 hours and most-used apps are social media apps i.e. 73.8%.

The majority of respondents prefer the Times of India app for news reading, Microsoft app for document management and Cam scanner for scanning documents.

65% of respondents have an opinion that they are using mobile apps productively during travel. But the same time 53.7% of respondents realize they are addicted to social media. 65.2 % of respondents realize they are getting motivated by so many thoughtful messages in social media. Moreover, 61.2 % of respondents are happy for getting wished on special days and 70.4 % of respondents are getting motivated by the achievements of their friends and relatives. Only 37.2 % of respondents feel that they are getting involved in unnecessary discussions happening in the social media.

Mobile phone apps can be a substitute for various functions to be performed by management students and complimentary to various objective-oriented actions. Management Students with a clear vision can make the best use of their time by proper usage of mobile phones like making traveling time productive, making instant monetary transactions and various instant bookings, etc. Moreover, most of the B-Schools making use of Whatsapp, Facebook, etc for following up on

various assignments, group communication for organizing various activities etc.

The above findings are a clear indication that management students are making positive usage of mobile phones.

Suggestions

- 1) It is suggested to management students to integrate the functionality of mobile apps for creating learning and research environment in institutions.
- 2) It is suggested to switch over from increased social media app usage to learning apps and news reading apps.

Scope for further Research

Since it is only a basic understanding of the present scenario in the utilization of available mobile apps towards the learning objectives, the study can be extended with more statistical tools in other geographical locations.

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