Title: Proceedings of the 4th Global Conference on Business Management and Economics, July 2019 – Toronto, Canada

Format: Electronic Book

ISBN: 978-1-9990057-3-3

GCBME

TABLE OF CONTENTS

The Role of Business Schools in Supporting Economic and Social Development

Author:

Ayesha Hameed
Advocate High Court of Pakistan,
Ayesha Law Associates,
District Courts, Faisalabad. Pakistan.
ayeshahameedadvocate@outlook.com

Abstract

The notion that business schools alone can support economic and social development in a society is fundamentally flawed. The argument is that it is the collective responsibility of the business schools, business organizations in society, corporate leaders and the governments to adopt an integrated approach and contribute towards the development of an economically sound, socially developed, sustainable, ethical and fair society. An innovative and socially relevant curriculum with a strong component of law and ethics can bring innumerable ripples of change across the face of the entire social, political and economic ambiance. The role of business schools is to make the future leaders understand that business is fully situated in the realms of humanity and therefore the managers must create value for all stakeholders. The modern business corporation needs to be re-conceptualized – the shareholder capitalism mentality must transform into stakeholder capitalism mentality. Finally, the government needs to re-visit the law of business organizations and corporate governance law and address the inadequacies of law. The purpose of this article is to set forth new narratives: a new conceptualization of business school, re-conceptualization of corporation, responsibility of the executives and obligation of the government.

STRATEGIC MANAGEMENT FOR SUSTAINABLE BUSINESS DEVELOPMENT IN AFRICA.

Bagerenga Godfrey Bulezi

Booth Fire Services Ltd., Uganda

Globalization and internationalization of world markets have upset the economic dynamics of African countries by allowing the private sector to become the predominant player in wealth creation. Business re-structuring and privatization programs constitute an integral part of this new dynamic. Today, new management practices, new concepts and new strategic management tools are the predominant factors in determining how well African firms perform.

Equally the business landscape in Africa has continued to attract concerns from various parties. While there are recognizable efforts in business, most firms operate precariously. From various boundary spanning fields of strategic management like sociology, economics, finance and industrial psychology, explanations can be drawn why there has been slow or even stunted business development in Africa. Basing on the general prescription of strategy models this paper draws from studies to argue that business development in Africa has principally been due to the late adoption and application of strategic management in business.

It is now widely accepted that sustainability has gained a significant role in the strategic management of firms and has become one of the most debated topics in the political, business and social sectors, as the need for finding solutions satisfying the triple bottom line ‘’people, planet,

profit'' in all fields of activity have become a necessity. In the last decade, sustainability has become an imperative for strategic management of firms and their business models.

The imperative issues surrounding the management of the looming global environmental crisis (e.g. climate change and land-use change) demands the identification of causality links that will be essential to enable real change in individual and collective behavior in firms. The suggestion proposed here would be "focusing on internal spaces of the human mind and emotions [...] internal focus includes gaining deeper sensory awareness of nature, gaining emotional experience of nature and understanding the connections between external environment and internal psychological and identity formation process.

Some of the challenges that inhibited business development in Africa have been family settings, poor levels of technology, government and political environment, low organizational and managerial capabilities, and narrow knowledge space. In Africa, family set up includes extended families and paternalistic authority with individuals loyal to their family and tribe spread within African societies which influence managerial and organizational processes.[1] Education and interaction with people of other cultures have recently influenced African societies leading to adoption of western educational systems and organizational management practices. This has opened a gate way to business growth by adopting western models. Governments in Africa are majorly centralized which has led to abuse of power and economic mismanagement.[2]

[1] Vincent Bagire (2018). Strategic Management in Africa: Tracing Gaps in Sustainable Business Development. Makerere University Business School

[2] Usha, C. V. & Haley, G. & Haley, T. (2006). *Managing for Strategic Success in Emerging Economies*. Hand Book of Business Strategy, 27 – 33.

As it is known that the field bridges the firm and the environment, organizations lacked an enabling setting to develop localized strategy models or to adopt those from developed countries. Resource utilization capabilities that could enable them undertake successful business have been lacking. Though the countries are endowed with numerous physical and human resources, there have been vague strategic views of how to exploit them for sustainable business development.

This changing environment has made the business landscape in Africa greatly different. The indigenous firms are competing for space with many multinationals that have superior management systems and large capital bases. Local managers have had to refocus attention on models of survival and competitiveness. The region has adopted strategic management belatedly; this is a possible explanation for the low level of business, the poor management and the superiority of the multinationals.[3] The integration into the global business trends by local firms has led to some level of economic growth.

In my proposed paper our focus is on showing how lack of strategic management affected African business. It is clear that research is urgently needed to analyze various dimensions of strategic management such as firm internationalization, resources and capabilities, leadership, sustainability management and strategic planning to inform policy and practice. There are scarce empirical evidences of how the models from the developed economies have fared, successes and failures of liberalization policies, the challenges and success stories of SME models, the knowledge space among others. This will place Africa on a platform of clear strategic and sustainable business practices which are crucial for today's global competitiveness.

[3] Rajesh, K. P. (2009). Multinationals and Emerging Markets. *Business Strategy Series*, 10. (2), 100 – 103.

A Novel Panel-Based Approach to Improving Forecasting Accuracy

Dr. Bay Arinze
Professor of Decision Sciences
Drexel University
Philadelphia, PA 19104, USA
arinzeob@drexel.edu

June 17, 2019

A Novel Panel-Based Approach to Improving Forecasting Accuracy

Abstract

Forecasting is a critical activity for most organizations and has a great impact on all aspects of the business. Accurate forecasts lead to lower supply chain costs and higher profitability through a more precise anticipation of events in the supply chain driven by customer demand, seasonal factors, and other visible and less-visible factors. Machine learning models have been introduced into forecasting practice, resulting in significant improvements in forecasting accuracy. Ensemble and panel-based approached have increased forecasting accuracy even further by using multiple models for individual forecasts. This paper proposes a different approach to forecasting, by using a modified ensemble approach. Instead of using fractional combinations of individual forecasting models for univariate forecasting of sets of time series, it selects a single model from a panel for every individual time series. The applied model for each time series is chosen by forecasting within existing data in the time series and using the most accurate model from the panel. The larger the panel, generally speaking, the more accurate the forecasts were.

Keywords: Forecasting, Machine Learning, Ensemble, Univariate forecasts

A Novel Panel-Based Approach to Improving Forecasting Accuracy

Introduction

There is a rich and growing catalog of methods that integrate machine learning models and combined model approaches to increase the accuracy of forecasting models (Zhang, 2003; Dunning and Friedman, 2015). While both streams can be applied to multivariate forecasting, the overwhelming majority of efforts tend to focus on univariate forecasting, where the time series itself provides the entirety of inputs into the forecasting model (Box and Jenkins, 1976).

Machine learning-related methods include neural networks, random forest, gradient boosting and others and these have been particularly effective for nonlinear time series that do poorly with traditional ARIMA models.

Combining fractions of various models in ensemble or combined models has also brought improvements in forecasting accuracy for both linear and nonlinear time series (De Georgi et al, 2016). Of course, there are an infinite number of potential model combinations and many papers use seemingly random combinations of methods to eke out forecasting accuracy improvements, typically over single model ARIMA-type forecasts.

One critique of these approaches is that given the caveat that no one forecasting model can be best for every time series, the only guarantee is that combined models are "best" or actually, very good, for the demonstrated data sets, with no guarantees made for other datasets (Hyndman, R., & Athanasopoulos, G. ,2017)

This research takes another approach to forecasting by incorporating machine learning models within a panel of models. This univariate approach uses the time series itself to provide signal by pretesting the panel of models within the existing data set. The best model (i.e., that with the lowest error) is used to create the forecast.

In this paper, the overall model was preliminarily tested, and results show that for each time series, one of the most accurate models was always typically selected.

Contemporary Forecasting Approaches

Basic forecasting engines in products like Tableau and Microsoft BI use a few parameters to calculate ARIMA-based features like trend and seasonality and thereby provide forecasts for entered data. The Tableau/Microsoft BI approach is similar to panel-based approaches in SAS Forecast and SAP APO module, but much less powerful.

Larger organizations who make regular forecasts (e.g., weekly or monthly) of product demand or other time-based phenomena use panel-based models as seen in such products as SAP APO model and SAS Forecast. These enterprise-rated products increasingly include machine learning models that allow users to benefit from linear and non-linear forecasting models. These enterprise products also allow auto-selection of a forecasting model for each individual time series by examining the features of the time series.

Using features such as skewness, auto-regression, kurtosis, trend etc., a model is selected from the available panel and used to create the forecast. Two areas of possible improvement are (a) improving the selection process whereby more accurate models are selected for the forecast and (b) broadening the panel of models used for creating forecasts. These are the aims of this paper.

The Proposed Model

In this paper, we similarly use a panel of models (written in R) to create a forecast from 5 monthly time series. The time series were sourced from the ***tsdl*** package in R, created by Hyndman and Yang (2018). In this approach, the models are fitted to the existing data in the time series. The one with the best fit is then used to create a 3-lag forecast. The models included in the panel included:

1. Exponential smoothing (using the **ETS** function in the FORECAST package)
2. Exponential Smoothing State Space Model With Box-Cox Transformation, ARMA Errors, Trend And Seasonal Components (using the **TBATS** function in the FORECAST package)

3. Neural Networks (using the **NNFOR** function in the NNFOR package)
4. Neural Networks (using the **NNETAR** function in the FORECAST package)
5. Bayesian time series modeling (using the **BSTS** function in the BSTS package)
6. Auto-Regressive Integrated Moving Average meta-model (using the **ARIMA** function in the FORECAST package to select an appropriate sub-method)
7. Exponential Smoothing with Drift (using the **THETA** function in the FORECAST package)
8. Support Vector Machine (using the **SVM** function in the E1071 package)

For the purpose of this research, a comparison was made between the model above and SAS VIYA forecast engine over 5 monthly data sets from the tsdl package. The model is shown below.

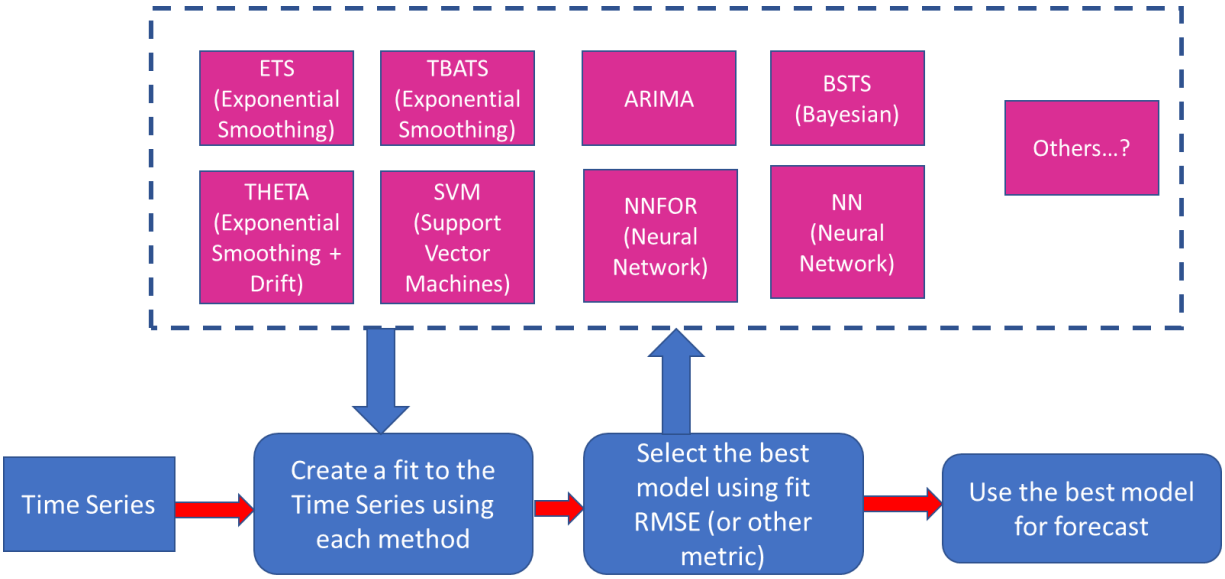


Figure 1: The Proposed Ensemble-Based Forecasting Model

The Data Set and Model Testing

Using 4 monthly time series from Hyndman and Khandakar's (2008) tsdl dataset, the results are shown in the chart below. We show for each method, the number of times it was the best by RMSE in the eventual forecast vs. the number of times the panel-based model selected by fit to the time series was the best.

Model	Time Series 1 (RMSE/Rank)	TS2	TS4	TS8	Total by sum of Rankings
ETS	307(3rd)	50.50 (7th)	12,753 (2nd)	109 (5th)	17
TBATS	341(5th)	17.19 (4th)	20,346 (7th)	109 (6th)	22
NNFOR	488(7th)	5.23 (1st)	13,951 (4th)	68 (2nd)	14
ARIMA	318 (4th)	58.69 (8th)	13,873 (3rd)	64 (1st)	16
THETA	212 (1st)	8.19 (2nd)	15,036 (5th)	102 (3rd)	11
SVM	460 (6th)	44.93 (6th)	10,357 (1st)	121 (7th)	20
BSTS	2,575 (8th)	34.59 (5th)	227,795 (8th)	542 (8th)	29
NNETAR	276 (2nd)	16.59 (3rd)	18,159 (6th)	102 (3rd)	14
SAS (Viya) Forecast	357	14.09	5,260	24	
Panel-Based	276 (2nd)	16.59 (3rd)	13,951 (4th)	102 (3rd)	12

Table 1: Results of Forecasting Accuracy for 4 Time Series

Results and Discussion

The results of this exploratory research show some promise for the research approach. The panel-based model selected a forecasting model based on the goodness of fit (using RMSE) of each forecasting model to the time series. The best filling model was then chosen to forecast 3 months ahead (3-lag) for that time series. RMSE was computed for all 3 forecasted months based on known actuals.

The panel-based model selected the second-best model once, the third-best model twice, and the fourth-best model once over the four time series. When totaling the sum of rankings for each individual method, it was bested only by the THETA model (exponential smoothing with drift) based on an 11 vs 12 combined ranking. Therefore, the panel-based model came close to being the best for the time series.

In comparison with the new SAS forecasting tool, VIYA however, the approach was inferior, beating the SAS forecast only once. Overall RMSE was also much greater.

It should be mentioned however, that at this exploratory stage, the forecasting models received little tuning and were simply used as-in from the packages. Additional tuning will certainly increase the accuracy of the models and overall panel forecasting accuracy. Second, the sample size for this study included only 4 time series, which is insufficient to draw more concrete conclusions. It serves only to show the mechanism and viability of the panel-based approach.

Further research will:

(a) Add more models to the panel based on the hypothesis that more models lead to potentially greater forecasting accuracy
(b) Tune all the forecasting models as well as the selection technique based on fit. The latter will ensure that the best fitted model results in the most accurate forecast an overwhelming majority of the time.
(c) Testing an improved model over hundreds of time series to draw statistically significant conclusions.

Ultimately, the aim is to make this approach competitive with commercial forecasting packages.

References

Dunning, T., & Friedman, E. (2015). Time Series Databases (1st ed.). California: O'Reilly Media. Retrieved from http://shop.oreilly.com/product/0636920035435.do

De Giorgi, M., Malvoni, M., Congedo, P., Comparison of strategies for multi-step ahead photovoltaic power forecasting models based on hybrid group method of data handling networks and least square support vector machine, Energy, Volume 107, 15 July 2016, Pages 360-373.

G.E.P. Box, G.M. Jenkins, Series Analysis Forecasting and Control, (first ed.), Holden-Day, San Francisco (1976)

Hyndman, R., & Athanasopoulos, G. (2017). Forecasting: Principles and Practice (2nd ed.). Retrieved from https://www.otexts.org/fpp2/

Hyndman, R., & Khandakar, Y. (2008). Automatic time series forecasting: the forecast package for {R}. Journal of Statistical Software, 26(3), 1-22. Retrieved from http://www.jstatsoft.org/article/view/v027i03

Rob Hyndman and Yangzhuoran Yang (2018). tsdl: Time Series Data Library. v0.1.0. https://pkg.yangzhuoranyang./tsdl/.

Zhang, P., Time series forecasting using a hybrid ARIMA and neural network model, Neurocomputing, Volume 50, January 2003, Pages 159-175

What Factors Impact Savings and Investment of Canadian Households?

Doc. PhD. Dorjana Nano

York University, Toronto, Canada

MBA Bavneet Singh Nagpal

York University, Toronto, Canada

MA Carina Matutina

York University, Toronto, Canada

Abstract

Saving patterns of households is an important barometer of individual welfare and well-being in a country. Changes in savings provide insight about the retirement status. Statistics have revealed that Canadian households' savings have decreased considerably, reaching the lowest level in a decade. Millennials are shown to have no difference from their baby boomer parents. Research has revealed a causal relationship between savings and investment. However, many other factors are found to influence this relationship. This paper examines the main socio-demographic variables impacting savings and investment for Canadian households. It aims (i) firstly, to identify the importance of savings and investment (ii) secondly, to explore the existing literature on factors impacting savings and investment; (iii) thirdly, to reveal the main personal factors impacting savings and investment in the case of Canada; and (iv) finally, to suggest recommendations and policy implementations in order to help households and policy-makers to make smart decisions. A structured questionnaire comprising of nine personal, open-ended questions such as family income, marital status, family size, annual expenditure, property type, etc., is delivered electronically during the period May-June 2019. Multiple regression analysis is utilized to reveal whether there is any statistically significant relationship between the variables. Results revealed a positive relationship between dependent variable savings and investment and independent variables income, expenditure, property type & family size.

I. Introduction

Savings are recognized as the source of investments that fuels the individual welfare and the economic growth of a country. Many would be worried to consider savings as the main drag to growth and prosperity, fearing what John Maynard Keynes called "The Paradox of Thrift" - if everybody saves, then the economy would shrink. However, evidences have shown that countries with high level of financial literacy, regarding saving and investment, have gained competitive advantage and have shown economic growth and progress. Saving is considered as setting money aside for future use, such as to buy a home, child education, hospitalization, or for other unexpected life event. Domestic saving consists of three parts: household saving, corporate saving and public saving. Household savings constitute one of the main parts of the total savings in a country. In Canada, personal saving is personal disposable income less personal expenditure on consumer goods and services, less current transfers from persons to corporations and to non-residents as a percent of disposable income. Meanwhile, investment is defined as investing in assets such as bond, stocks, mutual funds, pension plans, GIC, real estate, etc., hoping to benefit a higher return in the future. Statistics Canada has shown that Household Saving Rate is reduced to 1.10 percent in the first quarter of 2019 from 1.40 percent

in the fourth quarter of 2018. Household Savings Rate in Canada averaged 7.63 percent from 1961 until 2019, reaching an all-time high of 21.60 percent in the first quarter of 1982 and a record low of 0.30 percent in the first quarter of 2005. On the other hand, households relying mainly on investment income hold about one fifth of non-pension related financial assets.[1] The main question raised in this case is: What factors determine personal savings and investment in the case of Canada?

The purpose of this paper is to explain the observed savings and investment patterns among Canadian households based on different personal factors. This research employs multiple regression model to explore the main demographic variables impacting savings and investment. Results of this study will be helpful for individuals to make sound financial decisions regarding savings and investment, and policymakers to implement incentives that promote individual security and national prosperity.

Definition of Terms

Family Income: Income is an important factor to determine the budget for savings of the household. More income could lead to more savings.

Marital Status: Marital status is one of the factors that affect the planning of the household's budget. A married couple would consider saving more important than a single person.

Family Size: When the number of people in a family increase, it will affect the amount of money allotted for savings. The more dependent family members are in an household, the more would be the expenditure and less savings.

Annual Expenditure: When annual expenditure increases, there would be less amount of money to save.

Property Type: Owning a house or renting it, is an important expense which affect the significantly affects the household's budget for savings.

II. Literature Review

Studies have shown that most households are not financially literate to make sound financial decisions regarding saving and investment. For households, savings decisions generally reflect a preference by individuals to smooth consumption over time. As a result of this consumption-smoothing preference, savings rates are thought to vary according to the individual's life cycle (Modigliani 1986). Demographic trends contribute to a shift in investors' portfolio preferences, affecting long-term interest rates. Population aging might impact the pension funds to be shifted their asset composition towards long-term bonds, consequently leading to lower yields. Although this portfolio reallocation might have magnified the recent decline in real interest rates, it cannot explain the long-run decline. Evidences have shown that people display a relatively low ratio of savings to income when they are young and during the early stage of their careers, a high savings rate as they approach the end of their working life, and a low savings rate in retirement.

A research report for the Retirement Income Adequacy, provided by the Department of Finance, Canada (2009), examined the level of savings among Canadian households. This study aimed to determine whether Canadians are saving enough in order to sustain their standard of living prior to retirement. Researchers employed a benchmark savings rate model that is derived from a simple model of consumption and savings over the lifecycle. The model is based on the hypothesis that people seek the same level of consumption before and after retirement. The benchmark increased strongly with earnings, reflecting the diminishing role of public pension income as earnings rise, and varied widely according to household type (e.g., single vs. couple, homeowner vs. renter). Result of the study showed that about 69% of Canadian households saved in registered pension plans (RPPs) and registered retirement savings plan

[1] https://www150.statcan.gc.ca/n1/daily-quotidien/190327/dq190327b-eng.htm

(RRSP) at rates sufficient to fully maintain their consumption levels in retirement or 100% replacement rate. On the other hand, about 78% of households met a lower target consistent with a 10% reduction in consumption at retirement or 90% replacement rate.

Rehman, et al., 2010 analyzed the determinants of household savings. Authors adopted a stratified random sampling technique in a sample of 293 respondents from Multan District of Pakistan. The extended model of Life Cycle hypothesis postulated by Ando and Modigliani (1963) and Ordinary Least Square method were used to analyze the data. Results were found to be in consistency with the life cycle hypothesis. Authors revealed age to have a positive relationship with household savings. Meanwhile, other factors such as education of household head, family size, liabilities, marital status and value of house were found to have a significantly and inversely relationship with household savings.

To examine the adequacy of the accumulated private savings of Canadian households for retirement, Liu, et al., 2013, adopted the life-cycle consumption model to come up with a life-cycle optimal savings. This tool served as a benchmark of the financial resources required to maintain similar living standards before and after retirement. The model was calibrated using the Longitudinal Administrative Databank, which provides essential information on life-cycle earnings realization, private pension coverage, and tax and transfer systems. Results of the study showed that 62% of the sample households have accumulated wealth exceeding the simulated median wealth implied by the life-cycle model. The overall risk of under saving is small; only households that fall below the bottom 23rd percentile of the wealth distribution is estimated to save less than the simulated targets by the model.

In another study, Vaillancourt et al., (2015) examined to which extent the historical increases in Canada Pension Plan (CPP) contributions affected the private savings of Canadian households. The data used were based on the saving patterns and demographics of Canadian households and the historical increases in the CPP rates from 1986 to 2008. Results showed that past increases in the compulsory CPP contribution rate were followed by decreases in private savings of Canadian households. The drop in private savings was not explained by changing interest rates or shifts in demographics such as age, income or home ownership. In terms of policy, the implication was that the benefits of increasing the CPP must be weighed against the inflexibility and choice offered by private savings vehicles such as RRSP.

Recently, Reid Institute (2019), conducted an online survey among a representative randomized sample of 1,500 Canadian adults. The survey aimed to determine Canadians' attitude towards savings and factors affecting it. Results showed that only 12% of Canadians displayed to have savings in the bank that meet or exceed their personal goal. Although Canadians are encouraged to save, this is not so the trend among the Canadian public. The study also showed that respondents over the age of 55 say they are comfortable with their saving while those below this age say that they have little or no savings. Savings also appears to be correlated with gender as men – especially young men – are much more likely to feel that their savings are "significant" than women of the same age are.

Despite the vast literature studying the determinants of the household savings, there is still a lack to investigate both savings and investment. The purpose of this study is to investigate the main demographic factors influencing both savings and investment in Canada.

III. Methodology

The database for this study is provided by a research project conducted to measure savings and investments of Canadian households. A structured questionnaire was administered among 101 key households' decision makers located mainly in the Ontario area. Participants are asked to complete a questionnaire consisting of nine main socio-demographic questions such as: gender, marital status, family size, gross annual household income, household annual expenditure, property type, annual rent, annual mortgage and current total savings and investments. The data are collected during the period May-June 2019. Descriptive statistics are considered to analyze the sample profile, while the Variance Inflation Factor (VIF) is employed to diagnose any multicollinearity among the independent variables. The rule of thumb in this case will be: If VIF>5, then severe multicollinearity may be present. Finally, the least square regression is utilized for investigating variables that have a statistically significant impact on the dependent variable households' savings and investment.

IV. Data Analysis and Results

Based on the frequency analysis in the table below, out of 101 who responded to the survey, 71.3% are shown to be male, mainly married (72.3%). Most of the families displayed to have 4 or less members. Over half of the participants (59.4%) have declared to live in their own house. Meanwhile, most of the families reported their income to fall under the category of C$61,000-C$80,000 with average median income of C$70,500 and a standard deviation up to C$28,175. Families with annual expenditure falling under the category of C$41,000-C$50,000 have an average median income of C$45,500 and a standard deviation of C$30,070.

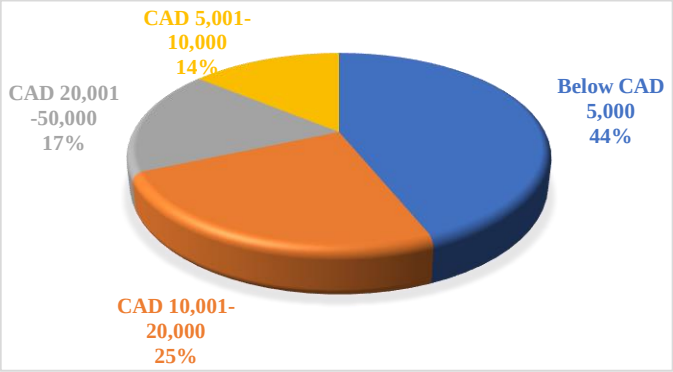
Sample Profile

***Table 1*: Characteristics of the Sample**

		Frequency Percentage	
1.	**Gender**	101	100%
	a. Female	29	28.7%
	b. Male	72	71.3%
2.	**Marital Status**	101	100%
	a. Single	14	13.9%
	b. Married	73	72.3%
	c. Divorced	13	12.8%
	d. Widow	1	1%
3.	**Family Size**	101	100%
	a. 4 or less	67	66.3%
	b. 5	29	28.7%
	c. 6	5	5%
	d. 7	0	0%
	e. 8 and over	0	0%
4.	**Property Type**	101	100%
	a. Rent	41	40.6%
	b. Own	60	59.4%

The majority of participants declared to have less than C$5,000 on their savings and investments. Only 17% of them reported to have around C$20,001 – C$50,000 on their saving accounts or different investment instruments.

Graph 1: Savings and Investment



Based on the multicollinearity statistics represented in *Table 2* below, multicollinearity issues can be observed for the variable "Property Type" and "Annual Rent", since their VIF value is greater than 5. Hence, to increase the adequacy of our model we have excluded these two variables from the regression analysis.

***Table 2*: Collinearity Diagnostics**

Variables	Tolerance	VIF
Gender	.932	1.073
Marital Status	.968	1.033
Family Size	.982	1.018
Annual Expenditure	.576	1.736
Gross Income	.541	1.850
Property Type	.117	8.527
Annual Mortgage	.296	3.384
Annual Rent	.147	6.803

In order to explore the relationship between independent variables and savings and investment, a multiple regression analysis is employed. R Square, or the coefficient of determination, measures how close the data are to the fitted regression line. As shown n in Table 3, R square stands at 0.418, showing that 41.8% of the variation in the dependent variable, Savings and Investment, is explained by the variation in the six independent variables – Gross Income, Annual Expenditure, Gender, Family Size, Marital Status and Annual Mortgage. This result is expected as our model attempts to predict human behavior of saving and investing, which typically have R-squared values lower than 50%. While the R-squared estimates the strength of the relationship, the F-test of overall significance will provide information if there is at least one independent variable that is statistically significant. One-way ANOVA table below show an F value of 11.26. Using an α of 0.05, the $F_{0.05:\,6,94} = 2.197$. Since the F statistic is much larger than the F critical value, we reject the null hypothesis that the model explains zero variance in the dependent variable, and instead conclude that there is at least one independent variable that is statistically significant with the dependent variable.

Table 3: Model Summary [a]

Model	R Square	F	Sig [b]
	.418	11.260	.000
a. Dependent Variable: Savings & Investments			
b. Predictors: (Constant), Annual Mortgage, Marital Status, Family Size, Gender, Annual Expenditure, Gross Income			

Table 4 below shows that Annual Expenditure, Gross Income and Gross Income are represented statistically significant in the model at 5% level of significance, while Annual Mortgage is shown to be significant at 10% level of confidence. Hence, we reject the null hypothesis that the coefficient is equal to zero. These variables are meaningful addition to our model because changes in the predictor variables are related to changes in the dependent variable, Savings and Investments. The equation regression fitted to this relationship is presented as follows:

Savings and Investment = 2.019 - 0.290 (Annual Expenditure) + 0.74 (Gross Income) -0.156 (Annual Mortgage)

Table 4: Regression Model [a]

Model	Standardized Coefficients Beta	t	Sig.	Collinearity Statistics Tolerance	VIF
(Constant)	2.019	2.483	.015		
Gender	.039	.490	.625	.960	1.042
Marital Status	-.131	-1.654	.101	.982	1.018
Family Size	-.054	-.676	.501	.988	1.012
Annual Expenditure	-.290	-2.899	.005	.618	1.618
Gross Income	.745	7.402	.000	.612	1.635
Annual Mortgage	-.156	-1.947	.054	.962	1.040

a. Dependent Variable: Savings & Investments

V. Conclusions and Recommendations

This study surveys 101 households located mainly in the province of Ontario, Canada. It reveals the main socio-demographic factors that influence savings and investment of Canadian households. Results of this research reveal annual expenditure and mortgage expense to have a reverse relationship with savings and investment, and annual gross income to impact them directly. Even though the discrepancy between annual gross income and annual expenditure revealed in this study, still the statistics for savings and investment remain low. This result raises another question whether Canadian households are financially literate to manage proactively their personal finances.

Further studies are recommended to investigate Canadian households' financial literacy, different investment products invested in, and barriers to save and invest. Investigating these topics would help to better understand if there is any lack on financial literacy among Canadians, their attitudes towards several financial instruments and implementing policies to promote savings and investments. It is recommended that policymakers take initiatives to motivate employers, and financial services providers and households to drive investment demand and desire savings. In addition, financial education in the school, could help next generation to become more financially knowledgeable, which in turn will be valuable to invest smart. Finally, promoting savings and investment will lead to a more robust economy in the long run.

VI. References

"Debt, Savings and Stress: A Study of Economic Experiences and Attitudes in Canada Today", Angus Reid Institute, January 28, 2019.

Cavana, R., Delahaye, B., Sekaran, U., Applied Business Research: Qualitative and Quantitative Methods, (3rd ed.). John Wiley & Sons Australia, Ltd, 2001.

Francois Vaillancourt, Charles Lammam and Ian Herzog, 2015. "Compulsory Government Pensions vs Private Savings: The Effect of Previous Expansion to the Canada Pension Plan", Fraser Institute. https://www.fraserinstitute.org/sites/default/files/compulsory-government-pensions-vs-private-savings.pdf

Huju Liu, Yuri Ostrovsky and Jie Zhou, "Savings and Wealth: The Adequacy of Household Saving in Canada", Statistics Canada, June 2013, http://publications.gc.ca/collections/collection_2013/statcan/11-622-m/11-622-m2013029-eng.pdf

Keith Horner, 2009, "Retirement Savings by Canadian Households", Department of Finance, Canada, , https://www.fin.gc.ca/activty/pubs/pension/ref-bib/horner-eng.asp

Modigliani, F. 1986. “Life-Cycle, Individual Thrift, and the Wealth of Nations.” American Economic Review 76 (3): 297–313.

Nano, D. & Cani, S. (2013). The Differences in Students’ Financial Literacy based on Financial Education. Academicus International Scientific Journal, (8), 149-160.

Rehman, H., M.Z. Faridi and F. Bashir, 2010. Households saving behavior in Pakistan: A case of Multan district. Pak. J. Soc. Sci., 30: 17-29.

A Need of Farm Records and Accounting in Agriculture Sector

Ms. Neha Saini, **Dr. Jai Kumar Sharma,**
Research Scholar, Associate Professor
Akal College of Commerce
Eternal University, Baru Sahib Sirmour (HP) INDIA.

ABSTRACT

The importance of records and account to evaluate the farm performance enterprise, managerial control, budgeting, gains and losses and also to enable bank loans to be obtained if the farmer deems it fit cannot be overemphasized. This article aims at analysing the activities of the farmer on the farm of any type practiced in both physical and monetary terms. In India agriculture income is tax free with some conditions. But account officer want to see the record that it is essential for former to produce the Accounts. Therefore it is advisable to all big farmers to maintain the agriculture accounting books. In India agriculture is operated and maintained by family of farmers. The proper financial accounting is not maintained in agriculture. Attention should be given on proper accounting in agriculture. The incomplete records are maintained on cash basis. Proper maintenance of accounts is useful for owners, government and research agencies. Government decided subsidy for fertilizers, manures and for other activities based on proper maintenance of records. The accounts should be classified to ascertain cost of each crop, to compare various crops productivity, profitability and measure the effectiveness of allied activities. Lack of proper farm management and accounting system are the main reason for low productivity. The people are still demanding that agriculture should be treated as industry in India.

Keywords: Farm records, Agriculture accounting, Employee satisfaction and Farm management.

IMPACT OF ETHNOCENTRISM AND ENMITY ON CONSUMER INTENTION TO PURCHASE WITH SPECIAL REFERENCE TO CHINESE PRODUCTS

Neha,

Assistant Professor,

Guru Nanak Khalsa College, Sultanpur lodhi,

Kapurthala (Punjab) India

ABSTRACT

This study examined that ethnocentrism and enmity are the two factors which have strong impact on consumer intentions to purchase. The research design of the study consisted of survey, where important factors against Indian College students were measured, along with their intentions to purchase to imported Chinese products. After analyzing the results, it was found that both ethnocentrism and enmity had a significant negative impact on consumer purchase intentions related to Chinese products. Moreover, there was also an evident positive impact of enmity on the level of ethnocentrism demonstrated by the respondents. The findings of the study suggest that the country of origin effect is a factor that should be taken importantly by both local and foreign companies when developing their marketing strategies, as it directly affects consumer intentions to purchase domestic versus imported production.

Consumer decision making of Indian buyers at modern retail outlets in Delhi/NCR

Ramneet Kaur
RESEARCH Scholar,Department of Business Administration,Chaudhary Devi Lal University, SIRSA, HARYANA , INDIA

Mahak Mahajan
Research Scholar, ,Department of Business Administration,Eternal University, Himachal Pradesh,INDIA

Abstract

India is on the threshold of a new revolution in modern retail, coupled with the permit of 51% FDI stake in multi-retail, along with entry of layers like Big Bazaar, Westside, Shoppers Stop, Spencers and Easy Day etc. is changing the consumption habits of the Indian consumer in Tier-1 & Tier-2 in India with the entry of Indian and foreign players like Metro, Wal-Mart etc. The market is divided into the traditional i.e. Mom and Pop stores popularly known as kirana stores and the modern format i.e. organized retail, the stronghold of Mom and Pop stores or Kirana stores is being challenged by the on slot of organized detail, though the market share is small i.e. 3-5 percent.

Many issues need to be resolved, like future pattern of consumption and which formats would be referred by consumers, other factors also like the entry of E-Tailors like Amazon, Myntra, Flipkart, Ebay, and Shopclues etc need to be kept in mind as E-Marketing becomes popular with the tech savvy teens in India(22-40 years of age). With the increasing GDP, economic independence and empowerment of women, their role in decision making in family purchases is increasing. The role of children in purchase of certain items like mobiles is also increasing and marketers would have to include them and their influences in the marketing strategies crafted for the future. The study justifies the need for consumer marketing research which becomes important for aiding retailers to frame the right marketing strategies for the modern retail format.

Key words*:* Shopping behavior, hypermarkets, SKU, FDI in retail, brands, product category,Buying Behaviour Flipkart, Wal-Mart.

Financial Reporting Language and Information Asymmetry

Zahra Amirhosseini
Department of Management, Shahr-e-Qods Branch, Islamic Azad University, Tehran, Iran. Email:z.amirhosseini@qodsiau.ac.ir

Erfan Hooshmand
MBA Student, Faculty of Advance Science and Technology, Islamic Azad University, Tehran, Iran

Abstract

The main objective of this research is to investigate the effect of adopting an expanded financial reporting language (XBRL) on information asymmetry in listed companies in Tehran Stock Exchange. This research is an applied research in terms of purpose and in terms of data collection is a descriptive survey. The population of this research is all Iranian companies accepted in Tehran stock exchange. we used the data from the financial statements of 278 companies as a sample of the companies listed in Tehran Stock Exchange. The research goal was surveyed during the period from 2011 to 2017 by using the data panel regression method.

The results of the study indicated that there isn't any significant relationship between the financial reporting language in the studied companies and the information asymmetry, and the first hypothesis of the research has been rejected, but the results of the research in the second hypothesis indicated that there is a significant inverse relationship between the firm size and the relationship between the financial reporting language in the companies studied and information asymmetry. Also, the results in the third hypothesis indicated that a higher level of technology has a significant relationship with the financial reporting language in the surveyed companies and asymmetry information.

Keywords: Financial Reporting Language, Information Asymmetry, Company Size