



ECO-ENA: Economics & ECO-Engineering Associate, Inc.®, Canada



**The Annual Conference of Economic Forum of Entrepreneurship &
International Business
ACEFEIB**

The 6th Annual Conference of the Economic Forum of Entrepreneurship &
International Business

January 28th, 29th & 30th 2017

Venue: LMH, Oxford University, Oxford, United Kingdom

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The 6th Annual Conference of Economic Forum of Entrepreneurship & International Business - (SACEFEIB)

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**The 6th Annual Conference of Economic Forum of Entrepreneurship &
International Business
(SACEFEIB)**

Conference Program

First Day Symposium

January 28th, 2017

Venue: Lady Margaret Hall: Old Library Room: Mary O'Brien Room, Oxford University, Oxford,
UK

Entrepreneurship, Start-ups, Firms' Behavior, Empowerment and International Business

8:30 am - 9:00 am Registration & Refreshments

Program: From 9:00 a.m to 5:00/ 6:00 p.m

Duration/ Presentation: 40 Minutes

1:00 - 2:00 pm (*Lunch Break - All delegates are invited*)

3:30 The Second Coffee Break - Refreshments

Participants

Paper (1-1)

Morrison Handley-Schachler, Manchester Metropolitan University, United Kingdom
Conference Chair and Keynote Speaker

Keynote Speech: "Migration and Growth"

Paper (1-2)

- Ali Raza, University of Padua, Italy

*"A 26 Years' Systematic Literature Review: Formal and Informal Institutions in Entrepreneurial
Behavior"*

Joined with Moreno Muffatto and Saadat Saeed

Paper (1-3)

- Toby Chambers, Goldsmiths University of London, United Kingdom

*"Dissecting the "Invisible Hand": Re-Conceptualizing Firm Theory. A Practical Innovation
Framework for Social Entrepreneurs."*

Paper (1-4)

- Rachana Patil & Aisha Mohani, Welingkar Institute of Management Development & Research
Mumbai, India

*"Entrepreneurship Leads to Reduction in Migration: A Case Study of Woman Entrepreneur in
Palghar District of Maharashtra"*

Paper (1-5)

- Maheswaranathan Sarojini, Eastern University Sri Lanka, Sri Lanka

“ICT Adoption in Small and Medium Enterprises: Special Reference with SMEs in Batticaloa District Sri Lanka”

Paper (1-6)

- Passant Ihab, the American University in Cairo, Egypt

“The Experience of Passenger Transport Start-Ups in Greater Cairo: An Analysis”

Paper (1-7)

- Lucy Maina Kiganane, The Cooperative University of Kenya, Kenya

“An Assessment of Perceived Influence of Short Messaging Service (SMS) on Performance of Manufacturing Firms in Thika Town -Kenya”

Paper (1-8)

- Ridhima Sharma, Amity University, India

“Ten Driving Interactive Media Contact Points: Opportunities to reach Empowered Shoppers.”

Paper (1-9)

- Ghada G. Mohamed, York University, Canada

“The Impact of Media in Changing the Consumers' Behavior toward the Economic Internal Balance.”

Paper (1-10)

- Morrison H, Schachler, Manchester Metropolitan University, UK

"The General Framework of the Theory of Effectiveness and its Impact on the Internal Audit Environment: A Field Study on Industrial Companies in Tripoli."

Authors: Dr Abdulhamed Ibrahim Matuge, Tripoli University, Libya, Dr Shala Abulgacem Al-Abiyad, Tripoli University, Libya, and Dr Morrison Handley-Schachler, Manchester Metropolitan University, United Kingdom.

Second Day Symposium

January 29th, 2017

Venue: Lady Margaret Hall: Talbot Seminar 1: Mary O'Brien Room, Oxford University, Oxford, UK

Agricultural Economics, Agribusiness, Energy and Oil Price Fluctuations

8:30 am - 9:00 am Registration & Refreshments

Program: From 9:00 a.m to 4:00/ 5:00 p.m

Duration/ Presentation: 40 Minutes

1:00 - 2:00 pm (*Lunch Break - All delegates are invited*)

3:30 The Second Coffee Break - Refreshments

Participants

Paper (2-1)

Daniel May, Harper Adams University, United Kingdom
Conference Chair and Keynote Speaker -

Keynote Speech: *"Understanding Farmers: Incentives to Innovate"*

Paper (2-2)

- Justyna Kufel-Gajda, Institute of Agricultural and Food Economics - National Research Institute,
Poland

"Influence of Different Shocks on the Cyclicity of Market Power of the Polish Food Enterprises"

Paper (2-3)

- Toktam Mohtashami, University of Torbat Heydarieh, Iran

"The Efficiency of Silk Production in Traditional Silk Reeling Industry of Iran"

Paper (2-4)

- Sneha Nalla, Nalla Malla Reddy Engineering College, India

"Comparison of Income of the Farmer from Commercial Crops Grown in Green Grown in Green Houses, Modern Farms and Seasonal Farms during 2015 - 2016"

Paper (2-5)

- Najeh Mazoughi, Jazan University , KSA

"Agricultural Trade Liberalization Effects, case of KSA"

Paper (2-6)

- Tuğba Dayıoğlu, Nisantasi University, Turkey

"Parametric and Non-Parametric Volatility of Oil Prices."

Paper (2-7)

- Nicola Rubino, Universitat de Barcelona, Spain

"Oil Volatility Pass Through and Real Exchange Misalignment in Leading Commodity Exporting Countries"

Paper (2-8)

- Ghada Gomaa A. Mohamed York University & ECO-ENA, Inc., Canada & Hanan Rezk, Future
University in Egypt, Egypt

"The Direct Food Subsidies Policy on Restraining Egypt's Political Unrest and Sustaining the Development of Egypt."

Panel Discussion and Closing

Third Day Symposium

January 30th, 2017

Venue: Lady Margaret Hall: Talbot Seminar 1: Mary O'Brien Room, Oxford University, Oxford, UK

Islamic Economics & Finance, Financial Economics and Economic Analysis

8:30 am - 9:00 am Registration & Refreshments

Program: From 9:00 a.m to 4:00/ 5:00 p.m

Duration/ Presentation: 40 Minutes

1:00 - 2:00 pm (*Lunch Break - All delegates are invited*)

3:30 The Second Coffee Break - Refreshments

Participants

- Ghada G. Mohamed, York University, Canada
Conference Chair - Opening

Paper (3-1)

- Rodney Wilson, INCEIF, Malaysia

Keynote Speaker - *Over Skype*

Keynote Speech: *Research in Islamic Finance*

Paper (3-2)

- Mohammad Ashrfaul Mobin, Universiti Teknologi PETRONAS, Malaysia

"Finance, Growth and Human Development: An Islamic Economic Development Perspective"

Joined with Md. Akther Uddin, Mansur Masih and Syed Othman Alhabshi

Paper (3-3)

- Trisiladi Supriyanto, Ibnu Khaldun University, Indonesia

"Rate of Profit as a Price Benchmark in Islamic Banking to Create Financial Stability"

Paper (3-4)

- Zainab Ahsan, INCEIF & Finocracy, Malaysia

"Exploring Zakah and Awqaf as Tools of Community Development: Synergies and Convergence with FinTech Possibilities"

Paper (3-5)

- Noor Raihan Ab Hamid, UNITAR International University, Malaysia

"Factors Influences Service Quality in Halal Restaurants"

Joined with Muhamad Zamri Idris, Munira Saaidin, and Muhamad Naim Kamari

Paper (3-6)

- Rania Abdelrazek; Arab Administrative Development Organization, Egypt

"The Impact of Terrorism on the Economic Growth of USA and its Reflections on Egypt: Econometric Model"

Followed by a Panel Discussion on *the Confusing Link Between Islamic Finance and Terrorism*

Paper (3-7)

Morrison Handley-Schachler, Manchester Metropolitan University, United Kingdom
"Finance, Ethics, and Christianity"

Paper (3-8)

Ghada G. Mohamed, York University, Canada
"Islamic Finance in Canada - Contributions of our Conferences"

Closing

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ECO-ENA, Inc. ® Organizing team

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SELECTED PAPERS & ABSTRACTS

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Ten Driving Interactive Media Contact Points: Opportunities to reach Empowered Shoppers

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Abstract

Market structures change as a consequence to economic development and as the markets change from monopolies to monopolistic competitive markets, brand becomes the focal point of all marketing efforts. Market developments enforce brands to move their business strategies beyond the traditional markets. The media in general, has also developed with economic development and changes in market structure. The media is changing the way we work, socialize, create and share information. Media gives brands novel innovative ways to interact with customers and drive growth (Medenhall).

Supporting McHulan statement “*Medium is the Message*”. The communication in this revolutionized marketing realm is driven by the medium. The most important aspects of marketing i.e. Branding and Brand Equity are driven by the current media. When we talk about current media it has evolved from traditional to digital and now with tremendous transformation in technologies digital is advancing to Interactive. The paper thus elucidates ten Interactive Media Contact Points of Branding acting as catalyst to drive businesses. It focusses on how these Interactive Media Contact Points can be opportunities for brand managers to interact and stay connected with their prospective customers subsequently leading to returns.

Keywords

Digital Media, Interactive Media, Contact Points, Online Shopping, Digital Touch Points

Introduction

Millward Brown, WPP-Kantar's brand, communications and media research unit, conducted its annual Millward Brown Media Conclave in February 2016 in Mumbai. He quotes that in spite of the fact that advertisers have grasped the idea of making consistent and compensating brand encounters along the shopper's journey, the complexities of organizing the large number of retailer and media contact points has made purchaser showcasing hard to put into practice. It is well known that innovation empowers purchasers to look for items, substance and encounters, on the other side it is equally important to explore how predictable interactive media contact points crosswise over various media permits the customary media to open up the effect of computerized resources.

Brands are highly valuable assets for the firms. A brand engages its customers at different levels – Financial, Emotional, Utility, Knowledge, Entertainment, Interaction, Trendiness, Customization, Word of Mouth, Experience, Perception to name a few. Whether it's refreshing Coco Chanel Perfume or Burberry's scarf the key to a valuable brand is a very large number of very happy customers who interact with the brand. It's about constantly delivering the best customer experience possible, it's about delighting your customers whenever they interact with your organization. It is rightly said creativity strengthens and enlivens brand, but the science of branding is equally important. A successful brand requires both. We must understand a target audience's likes and dislikes as well as their hot buttons.

Companies in every aspect try to create strong brands by communicating with its consumers in rich and clear manner that leaves a persuasive and a compelling impact on its audience. When brand communication comes to mind, the first thing that clicks is mass advertising and promotion. Firms' main objective is to reach as many prospective customers at the lowest possible cost.

The key question that every marketer is attracted to is how they would like to communicate with their customers (Schultz, 2003). Talking about the current scenario, for communication to be effective and efficient, it is utmost important to have a strong digital footprint within the Interactive Media. Therefore, a business needs to define its digital platform presence strategy very clearly.

A shopping behavior, be it physical or over the Internet is always affected by the responsiveness and the encounters. The positive word of mouth is the result of the positive perusal of offline/online buying. At an intense competitive marketplace of today where the modernized atmosphere is surrounded with start-ups and competitors, low switching costs and elevated commoditization, it becomes a necessity to recognize and re-evaluate every contact point. Since, numerous platforms are available for customers to reach the brands, customer's experience and engagement during interaction at the contact point has become the prime focus of the marketers. Every contact point interaction contributes towards the customer experience, and effective management at these points counts for improved consumer experience.

Ron Shevlin, author of *'Everything They've Told You About Marketing Is Wrong'* and an analyst at Aite Group, LLC defines contact points as repeated interactions of the consumer that strengthen the emotional, psychological and physical connect of a brand. The broader definition of marketing communication rightly covers the various aspect of ongoing, interactive; cross functional (Duncan and Mulhern 2004) contact points (or touchpoints). Seeing the enormous popularity of the digital interactive media and its applications, it would not be wrong in saying that the contact point analysis in the marketing communication in the near future should happen through the Interactive Media Contact Points study. This study not being in place, new client acquisitions, brand positioning, imagery and visibility, possessing a strong hand over the competitors would be at stake.

This study focusses upon the contact points that have come in picture as a result of the popularity gained by the New Media. Henceforth we coin the term as 'Interactive Media Contact Points' Why Interactive Media ? Why not Digital Media? Interactive is the new wave, with the upcoming technological advancements, for instance launch of smart televisions, video games, iwatches etc. Interactive media is the future of tomorrow (Jeremy Ozen, Co-founder and President, Vistar Media). Proliferation of the internet connected screens and so much changing in the world of Web 2.0 platforms, content and digital environment it is the time to redefine Digital

Media. Jim Tobin, President, Ignite Social Media says Social media sites such as Facebook and Twitter are going to build tools to allow consumers to chat with brands, but they'll do so faster than brands will be able to use them coherently (2016 Social Brand Trend eBook). With such news and releasing trends of 2016, digital medium will soon transform itself into Interactive Medium.

Interactive Media Contact Points are also gaining popularity because there was one time when marketers in traditional purchase cycle were only managing few contact points that was driving word of mouth whereas now in this digital space the marketers task has not changed much, what has changed is the ease with which the word of mouth is spreading as a result of upgraded and advanced technologies. The modern day consumers are very social when it comes to the shopping behavior, their choices are determined by the peer opinions and inspiration and advices from surroundings (Sharma & Sahni, 2016). Interactive media contact points are the new wave of innovation in shopping behavior as the online shoppers are not just buyers; they have become reviewers, critics, pro, and influencers.

Summarizing, we can say Interactive Media Contact Points as any points or marketing activity on a digital interactive platform where you can communicate with your audience, customer, prospect or web user or *"All consumer interaction platforms which cater to 2-way effective communication act as a part of Interactive Media Contact Point"*. There are numerous Interactive Media Contact Points which has to be taken care of for effective selling. The most popular ones include websites, social media, content, blogs, e-banners, emails, press release and Smart Phone and tablets etc. Effective Management of Interactive Media Contact Points leads to customer engagement and increased chances of lead conversion and consequently sale.

1. Website

It is a platform where consideration starts. Like in the conventional model having a store/shop/office is the primary requirement. When you start your venture online website or a fan page or a blog acts as your working place. A working place or a website can also be coined by a term 'Discovery Platforms' (Gonzalez, 2014).

A website can be defined as a collection of related webpages on a single domain. It is a window to your business, available in front of your prospect customers 365*24*7. A person interested in

your product/service can view those on your website anytime of the day or night. An organization looking for an online presence should have a website. It should be designed and developed in a way that it is engaging and easily navigable. It is like a showroom to your offerings. The categories and web pages should be well defined and arranged so that whatever a customer wants is a click away.

2. Social Media

Social Media refers to the application which can convert one way communication to two way by means of web and mobile technologies upgrade. Andreas Kaplan and Michael Haenlein defined social media is "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user-generated content."

Social media is gaining popularity with more and more number of visitors registering daily. More than 50% of social media users follow brands on social media be it Facebook, Twitter, Youtube (Van , et al., 2011). Organizations have started increasing their marketing spend on social media almost by \$ 4.3 billion, as indicated by an annual report on ‘Wordwide Marketing Spend on Social Networking Sites’ (Williamson, 2011) Marketers, private business owners and even government organizations are focusing more on social media for better relationship and communication (Kim & Ko, 2012). The most popular way of marketing on social media platforms is by creation of Fan Pages and inviting the target group to like and follow them. Brand managers communicate all events, news, press releases to stay in constant touch with the consumers. The followers of the fan page regularly post comments and views over brand posts. A study by (Bagozzi & Utpal , 2006) shows that the brand’s fan page followers are more loyal customers and are more prone to reading information which brand posts. According to (Kaplan & Haenlein, 2010) there are six different types of social media: collaborative projects (e.g. Wikipedia), blogs and microblogs (e.g. Twitter), content communities (e.g. Youtube), social networking sites (e.g. Facebook), virtual game worlds (e.g. World of Warcraft) and virtual social worlds (e.g. Second Life). With more and more new platforms coming up the categories can be

extended to image and video sharing sites (e.g. Instagram, Pinterest and Snapchat) and professional networking (e.g. LinkedIn, digg.com). Thus, social media is not gaining popularity only as a medium of entertainment and communication, but also as a source of information (Mangold & Faulds, 2009). The traditional medium like Television, Radio, Magazines, Newspaper are slowly losing their charm and are being empowered by the gradually increasing popularity of the new medium especially digital (Keller, 2009).

A study on Social Media's impact on business and decision making by the Society for New Communications Research by Jeff Bulas shows that social media is playing an extensive role in decision making process. It has transformed the way discussions or meetings were done. It is a new form of customer centric relationship building approach which marketers are following as a result of great deal of attention put in social media. The brand gurus are following a mantra of building a network on various social media platforms which results in strong relationship building between the brand and its customers (Wolny & Mueller, 2013).

3. Content

Irrespective of Traditional or Interactive Media, content was, and is always the king. As smart marketers, brand managers understand the purpose of creating valuable content which is to attract and retain their customers. Content is designed in a way that humans and visitors connect with it. In case of interactive media, since there is no personal interaction the content plays the role of changing or enhancing consumer behavior.

Content in terms of interactive media is the skill through which the marketers get in touch with their web visitors and potential clients without even promoting and selling their brand. Rather than pestering your clients with sales pitch it focusses on delivering valuable information that creates sense to the consumer and motivates them to come back to the same platform and gain something valuable if not convincing them to purchase.

There are several studies conducted in the similar context to measure the ability of interactive media platforms to influence the buyers in decision making and based on the content delivered by varied platforms like social media, blogs etc. some have used the data source from Twitter (Rui, et al., 2009) (Toubia & Andrew, 2013). Studies have also been conducted for evaluating content on blogs and forums/discussion groups (Godes & Mayzlin, 2004) (Kozinets, 2002) and websites reviewing product and services (Moe & Trusov, 2011) (Tirunillai & Gerard, 2012).

4. Blogs

Blogs are also websites which are also treated as subset of parent websites. Blogs can be used to keep your user updated on information for your businesses. Blogs are generally used as directories for the website on the same domain. The purpose of developing blogs may vary as per individual's choice, preference or business type. Blogs are very good source for content, it plays a key role in search engine optimization for your webpages. It also helps businesses in conducting market research for their ongoing product/service's improvisation and new product/service's launch.

In 2003, a debate was created over the excess amount of trans fat above the permissible amount in Oreo Cookies. As a feature of its quick reaction frameworks Kraft Foods (the Oreo maker) instantly evaluated the general society feedback communicated through websites, public reviews and blogs and decided to reduce the amount of trans fat from Oreo Cookies (Terdiman, 2006). In specific reference to fashion industry, bloggers have become the trusted resource to communicate and predict the emerging trends and products for fashion consumers to rely upon. Blogs are referred to as a tool of two way communication, which on one hand help the companies in encouraging consumers to buy their products (Dozier, et al., 1995) and on the other hand enhances the learning about the products for audiences who follow the desired blogs.

Like most other social mediums, "the network of blogs is performing an important role in creating trends, sharing news and opinion, and spreading information via word-of-mouth" (Ahn, et al., 2010).

5. Banners

With the technology upgrading and advancements in marketing strategies by brand managers, presence on online space becomes vital. Traditional mediums are still in the market and will never disappear, but the pace of growth of expenditure spend in online advertising is the fastest in comparison to traditional sources like television and radio. In comparison to online advertising over traditional, the former appears as investment of the company whereas latter proves to be the cost (Thomas, 2011). Online channels are much more effective because of its remarkable property of measurability; the user behavior can be easily tracked and evaluated once he/she mark their presence online (Kaushik, 2010).

Banner ads by search engines are another category of paid advertisements apart from the inorganic listings on the Search Engine Result Page (Spindler, 2010). The banner advertisements are similar to the billboards, hoardings in case of traditional advertising; just the platform turns into online. Moreover, the effectiveness of online banners is measurable through click rate (Cho, 2003) (Sigel, et al., 2008).

The banners can be of various types depending on the shape, size, animation and text. Different banners work differently depending on the type of businesses. Some of the researches were conducted in past to evaluate the impact of different styles of banner against human behavior.

| S.No. | Type Of Banner & Human Factors | Previous Research |
|-------|---|---|
| 1 | Animated Icons clarifies the purpose and attracts the user | (Baecker, et al., 1991) (Dormann , 1994) |
| 2 | Animation should be hittable by expert clients. | (Alpert, 1991) |
| 3 | Large sized rectangle banners work well in terms of click ratio as it attracts maximum eyes | (Cole , 2012) |
| 4 | Pop ups to catch the moving eye once window is closed. | (Yoo, 2007) |

6. Email

When online, it is very important for a brand to customize a platform where the visitor can have access to communication either through mails or facility of customer service. The email as contact point thus plays a crucial role in personalization with the customers.

“If you’ve been in business for more than a week, you know that if someone is happy they’ll tell two friends, but if they’re unhappy, they’ll scream to 200. So it is with your businesses’ online reputation, and how it’s built” (Faber, 2012). It is very important to be in regular conversations with your audiences which is possible through emails.

Because of email marketing being so effective organizations have now started including costs in their budgets that email marketing is allotted to. Several organizations for effective emails have started using tools like autoresponders by getresponse, aweber etc. to methodically managing the emails sent. Email marketing is extremely cost effective and can be highly targeted and customized. The best part of email marketing is it is highly measurable, the marketers can view the click rate, open rate, bounce rate and then design their content and strategy accordingly.

7. Live Chat

Customers are now more inclined towards usage of web and mobile platforms as their initial step to contact any product/brand/service. The reliability of digital channels like ‘Chat’ is rapidly increasing because customers expect brands to value their time and effectively resolve their queries instantly.

Live chat can be termed as Digital Customer Care. McKinsey survey shows that online customer care results in paradigm shift in the level of customer satisfaction. Live chat acts as a hot point for lead conversion or a point where a potential sale is about to happen. Studies have also shown that chances of conversion of person who has undergone live chat is significantly higher (approximately 5 times) than those who haven't interacted. "The latest Customer Service Benchmark results suggest that the easier a company makes it for a customer to contact them, the more satisfied they are likely to be," said Derek Eccleston, global commercial officer at eDigitalResearch.

Live Chat is one of the highest rated interactive media contact point as per researches. eDigitalResearch found that, of the 2,000 consumers surveyed, 31% were currently using live chat, and 73% of those rated their satisfaction with the channel as high. 67% said they found live chat easy to use. (Bronwen, 2015) "Brands who are managing their live chat well are making live chat easy to find on their website, clearly signaling to users when their customer service team are available and how long they may have to wait, as well as allowing them to talk openly and honestly about their issues, queries or complaints."

8. Discounts and Reward Programs

When we talk about the new Interactive Media, we do not wish to loose any point of relationship forming. Discounts and Reward Programs are means to create communities for customers. They act as means of generating satisfaction, retention and increasing sales.

"Loyalty has a definition to it that is dated," said Andy O'Dell, Co-Founder and Chief Strategy Officer at Clutch, in an interview with Retail TouchPoints. "A lot of people consider loyalty a one-dimensional experience: I spend money and I get points or I buy a certain number of things and I get something for that." But the reality is the definition that has turned 360 degrees when it comes to interactive media. Discount vouchers and reward points should be considered as tools to strengthen relationship with customers; the intensions should not be to increase sales.

With the transformation in media, the economies are advancing are so are the marketing strategies. June 2009 issue of McKinsey Quarterly Review talks about the consumer decision journey. The research compares the consumer's journey to a wide funnel where a prospect starts

searching with a few name in mind. The task of the brand managers using digital media is to guide them along the path down the funnel and close the deal at the end. The decision making process can be summed up by an online consumer's buying journey. (Figure1)

9. Forums & Groups

Online forums or boards or discussion groups have been a topic of interest for many years. Forums are being used on regular basis even when social media has been so prevalent (Li & Bernoff, 2011). These online forums affect in improving the civic engagement at individual and society level and are of assistance in enhancing the applied importance (Pendry & Salvatore, 2015).

In the fast paced competitive online world of today, it is of prime importance to attract visitors on your website and retain them to reduce your bounce rate and enhance engagement. Forums act as a tool in maintaining this and hence improving the page rank for the web page. The major benefit is forums never go extinct it will keep your post indexed forever and will be a golden goose in generating the fresh content.

Forums generally play a role in the pre purchase phase of the customer buying cycle. It is also important tool for market research, as you get real time feedback and reviews. They can also act as platform where the companies can share releases and announcement of their upcoming project. It helps in designing a stage where beginners and pro can share their opinions and exchange ideas, the discussion boards can also result in generating your list which will contain visitors' comments, impressions and in turn can be converted as a useful source of information. The forums also give you a competitive edge over similar players.

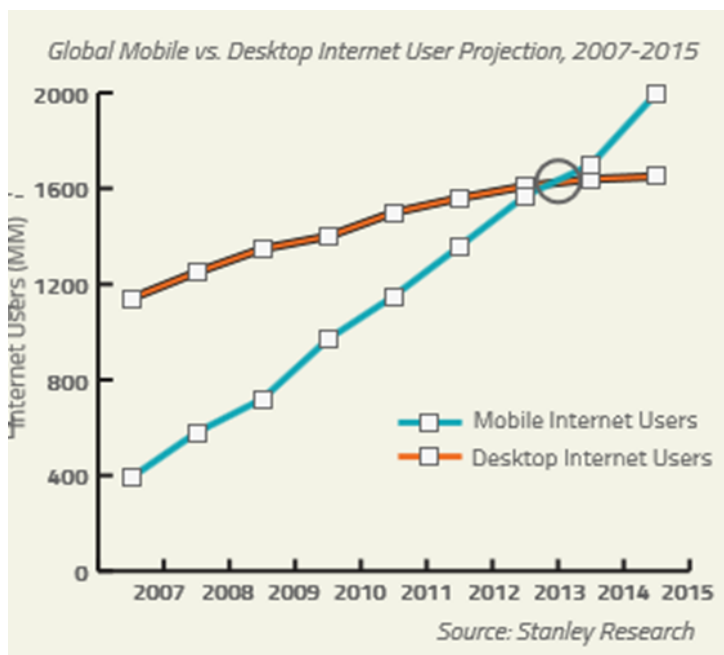
10. Handheld Devices - Mobile/Ipods/Ipads/Tablets

Handheld devices are the game changers of today. These are the quick access tools which are more or less always near to you. The success rate depends on understanding your customer. When designing a platform keep yourself in the customer's shoes, the mobile platforms are designed in a way that they are easy, fast and user friendly.

"2011 was indeed The Year of Mobile. Not only did mobile sales increase dramatically, with US\$6.7 billion in 2011 m-commerce sales, but mobile also proved itself as an incredibly valuable tool for accelerating online and in--store purchases on the customer's terms." (Rathee & Ramanan, 2013).

Handheld devices are predominant accessories for increasing the online and offline sales. They have been of immense support in cross channel integration from customer's perspective.

Companies have started investing more in mobile applications with increasing number of consumers using mobile websites and apps in lieu of desktop versions. (Graph 1)



Organizations have started investing more in Customer Centric technologies. As per the study by Lister Technologies, “when asked to select all areas of investment over the last 18 months, mobile (68 percent), Website analytics (68 percent), e--mail marketing (53 percent), and social programs (47 percent) topped the list, followed by user reviews (broken out separately from social programs, at 45 percent). Capturing lower percentages were internal facing technologies, including content management systems (41 percent) and e-commerce platforms (36 percent).”^{*} Thus, for the startups and the new entrants, investment in Facebook is the top priority followed by mobile and then other platforms. (*Source: Lister Technologies White Paper on Mobile Commerce).

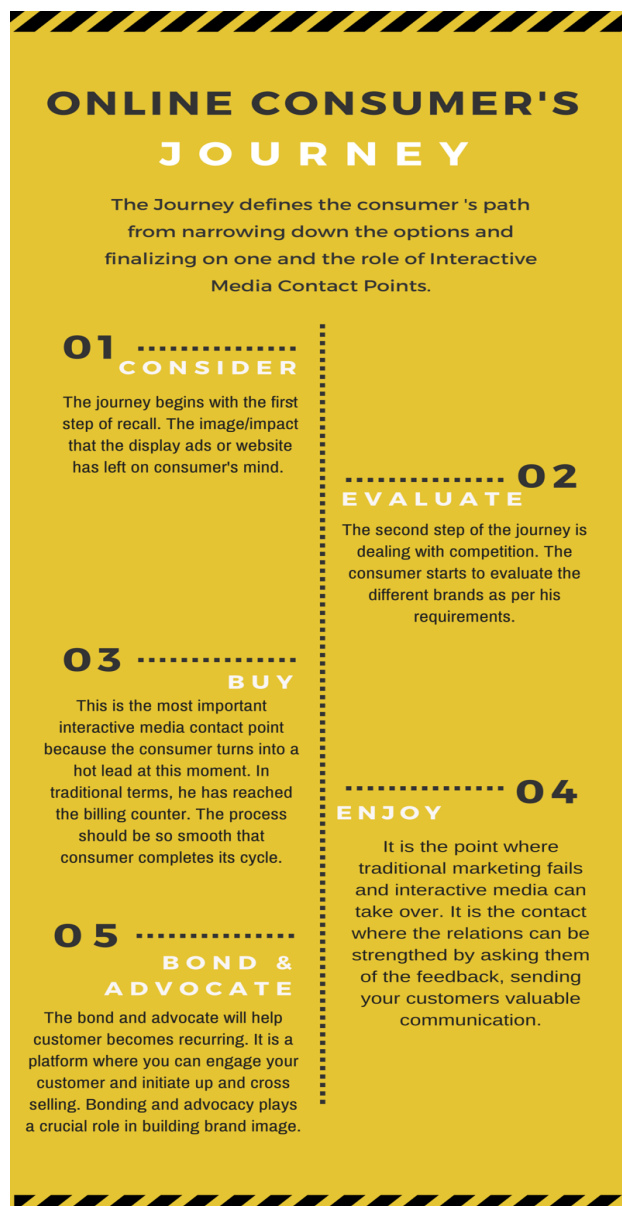
Interactive Media Contact Point is bound to make an impact on your Business

Conclusion

Interactive media contact points are points at each online stage of the customer relationship from awareness, acquisition, retention, to expansion, and gauges marketer’s effectiveness at managing the end-to-end customer lifecycle. Henceforth effective management of interactive media contact

points is important to maintain long term profitable customer relationship and also enhancing advocacy. By delivering valued Interactive Media contact points you improve customer experiences which lead to better results for company as well as clients in their journey.

A survey by McKinsey's on European countries shows that brands effectively managing more of the Interactive Media Contact Points are able to gain a 2.5% more sale over their competitors who are working on Lesser Contact Points. Interactive Media is providing platform for a massive pool of footprints from multi-channels to talk and share views/reviews of the product. The audience is right there in front of us, the key to success is to strategize how to capture them.



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**An Assessment of Perceived Influence of Short Messaging Service (SMS) On
Performance of Manufacturing Firms in Thika Town -Kenya.**

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ABSTRACT

Short Message Service (SMS) which is an advent of entrepreneurial technology innovation has become the world's most pervasive communications technology with a reach of 5 billion phones worldwide. Communication via SMS has become vital since the average consumer sends approximately 600 messages per month. Manufacturing firms all over the world are applying this entrepreneurial innovation to achieve business efficiency and effectiveness through improved productivity, cost savings, communication and customer satisfaction. The purpose of this study was to investigate application and perceived influence of SMS on performance of manufacturing firms in Thika town- Kenya. A total of 120 firms were sampled from a population of 200 manufacturing firms. A two-stage sampling technique was employed where firms were stratified according to size (Small, Medium and Large). Using Simple random sampling technique a sample of 120 manufacturing firms was picked in the ratio: 3:7:15 respectively. Self-administered questionnaires yielded 100% response rate. The data was subjected to detailed exploratory analysis through descriptive and inferential analysis. Technology Acceptance Model (TAM) and Task Technology Fit (TTF) model were used to measure performance. Analysis of Variance (ANOVA) was engaged to calculate the statistical significant differences between means. Post Hoc analysis was conducted using the Scheffe test to check the statistical significant differences between independent variables constituting the farm characteristics (moderating variable). Findings revealed that SMS had enhanced performance of manufacturing firms by increasing : sales volume (40.2%), profitability (42%), improved cost of quality (52.2%), improved market share position (39.3%), better ROI, ROS and ROE (53%), increased worker

productivity and responsiveness (50%), improved customer satisfaction ratings (48.8%) and improved firm's security (39.1%). Over three quarters of the respondents (76.8%) agreed that SMS deployment was critical for the long-term success of the firm. One Sample t-test results revealed that influence of SMS was significantly different from zero (leading to rejection of the null hypothesis). This implies that the perception of the respondents was that SMS, with its unique characteristics such as mobility, asynchrony, and intimacy, facilitates business communication and operation globally and had significant influence on the performance of manufacturing firms. Adoption and application of SMS therefore was critical for long-term success of manufacturing firms.

KeyWords: Short Message Service, Disruptive Innovation, Firm Performance, manufacturing firms

Introduction

Text messaging was first developed almost by accident in 1991 for GSM digital mobile phones (Baron, Patterson, and Harris, 2006). It is the act of typing and sending a brief, electronic message between two or more mobile phones or fixed or portable devices over a phone network. Chaffey et al, (2009) define Short Messaging Service (SMS) as a form of e-mail or marketing communication tool with high speed text message delivery, interactivity, more customer reach and response rate of which creates communication between mobile phone users. This wireless technology is said to be one of the fastest developing and exhibits great increase in the number of users (Menke, 2007). Marketers in manufacturing firms are using SMS for ordering products or services, advertisements and promotions as well as payment due dates.

Recent development of mobile technology has made firms to consider the possibilities of mobile devices from perspectives in which their use was not feasible in the past (Nisula, 2013). According to Mouelhi (2008), information and communication technology provide speedy, inexpensive and convenient means of communication. He reckoned that the adoption of technologies like mobile telephony by many developed countries has been found to have positive effect on firm performance. Firms that use ICT grow faster, invest more, and are more productive and profitable than those that do not (WorldBank.2006).

Statement of the Problem

Short Messaging Service (SMS) has witnessed a global remarkable growth and acceptance. It is estimated that SMS are globally being sent in trillions. In the last two decades it has emerged as one of the fastest, instant, private and the third mobile phone service with the greatest influence on performance of manufacturing firms (Lucy 2012). In her paper Lucy carried out a comparative study on the effect of the six mobile phone services so as to establish which one had the greatest effect on firm performance but did not pay special attention on the extensive usage and perceived influence of SMS on the performance of manufacturing firm.

Studies have shown that SMS technology is so dependable that even in rural areas with scanty coverage, SMS could be stocked up within the server and easily accessed as soon as signals were restored (Fitzerald, Spriggs, &Steinfeld, 2010, in Kang &Maity, 2012). Mobile phone services which are an entrepreneurial outcome and a constructive destruction technology have progressively rendered themselves in pervasive ways cutting across several firms as well as other sectors of the economy (Vuolle, 2010). Entrepreneurs in manufacturing sector are now using SMS to target mobile consumers' needs through intelligent advertising and promotion in which case the consumer receives location based advertisement on their mobile phone that are tailored to their personal preferences. It is therefore evident that a firm's competitiveness rests to a very large extent in its ability to innovate and align itself with current wireless technology.

Recent studies indicate the indisputable use of SMS technology :a study carried out in the US indicated that amedian USteen text users send out 60 texts a day (Pew Internet & American Life, 2012, in Kang &Maity, 2012, another study indicated that 37% BOP women in other four developing nations had used SMS (GSMA Women, 2012). According to Rao & Soumya, 2007, manufacturing firms that are using mobile phone services are thought to perform better than the rest. Manufacturing firms are exploring ways in which they should position themselves with

regard to fast paced changing mobile technological innovation. Under the assumption that the process of creative destruction will lead to the eventual demise of some manufacturing firms that do not adapt to the new techno-status quo(Vuolle, 2010), what can be done to move the manufacturing firms into the current techno-status quo and reap maximum benefits?

Many studies have been carried out to establish the application of SMS and the question of to what extent the application of SMS influence firm operations has not been adequately answered .Manufacturing firms must evaluate influence of SMS to know exactly to what extent its application contribute and improve their performance. This study therefore sought to establish application and influence of SMS on performance of manufacturing firms in Thika Town- Kenya. Findings of the study were aimed at aiding Manufacturing firms and other industries in decision making in as far as adoption and application of SMS in their business operation to ensure consumers get a better customer service is concerned .Very little had been done in exploring application and influence of SMS on performance of manufacturing firms . Most studies were mainly on the adoption and usage of the technological entrepreneurial innovation. A clear picture of the benefits of adopting SMS in relation to firm performance had not emerged from previous studies ; a gap existed in as far as assessing the influence of application of SMS is concerned. This study aimed at enhancing understanding influence of SMS on performance of manufacturing firms.

Literature Review

The world is filled with examples of how entrepreneurial innovations and new technologies have transformed the way people work, relax, shop, and socialize. Mobile phones which have made communication more portable and faster are used in ways. Disruptive wireless technologies like the SMS render enormous benefits including simplicity, convenience and cost

effective. This study was anchored on three models: Disruptive Innovation Model, Technology Acceptance Model (TAM) and Task –Technology Fit (TTF)

Table 1: Theories and Models that inform the primary research

| Authors | Topic | Models | Findings | Comments |
|---|--|-----------------------------------|---|--|
| Christensen (2011) | Pace of the technological progress which signifies the rate at which firms adopt the new technology (SMS) to develop new attributes to their products. | Disruptive innovation model | The rate of adoption of Wireless technology is extremely high displaced other | Helps explain why the rate of adoption of SMS is high |
| Davis, F. D. (1989) | Perceived Usefulness, Perceived Ease of Use and User Acceptance of SMS Technology | Technology Acceptance Model (TAM) | Usefulness was significantly more stronger linked than was ease of use (pp. 333) | Useful in explaining behavioral intentions |
| (Goodhue, 1998) Gebauer, et. al., 2010). | Importance of fit between SMS and the user task in achieving individual performance impacts Commerce | Task –Technology Fit | Ease of use in undertaking individual task was key in achieving performance targets | Helps measure the degree to which SMS technology assists an individual in performing his tasks.. |

Disruptive Innovation Model

In his simple Disruptive innovation model Christensen (2011) identified a very important element of disruption as the pace of the technological progress and development which signifies the rate at which firms adopt the new wireless technology to develop new attributes to their products. Various mobile technology evaluation models have been used for measuring the

adoption and application intentions of mobile technologies and its effects on performance.

Technology Acceptance Model (TAM) is a measurement model which predicts user intentions through perceived usefulness and ease of use. Usefulness is conceptually related to performance and productivity (Gabauer, 2008; Bouwman & van de Wijngaert, 2009). In this study Perceived usefulness was measured using statements concerning how using SMS enabled workers to accomplish tasks more quickly, improve job performance, enhance effectiveness of the job, make it easier to do the job and how the worker found technology useful in his/her job hence raising customer satisfaction levels. Kim (2008) examines employee's intention to use mobile Phone services due to perceived cost saving implying user's perception on smart phones provide cost effective communication and information exchange in terms of monetary factors, time and emotional effort. TAM was used to evaluate employees' willingness to adopt SMS in their day to day firm operations and evaluate the effectiveness of their perceived usefulness of SMS and its ease of use in enhancing customer satisfaction.

Task –Technology Fit (TTF)

Task-technology fit (TTF) theory proposes that Technology has a positive influence on individual performance and is useful if its capabilities match the tasks that the user must perform. It shows the importance of the Fit between SMS and the user's tasks in achieving individual performance impacts from Information technology (Gebauer, et. al., 2010). This theory serves as a strong diagnostic tool for assessing whether SMS is meeting user needs and is key in measuring the degree to which SMS technology helps employees in performing their portfolio of tasks aimed at enhancing customer satisfaction.

To measure task-technology fit you must consider: quality, locatability, authorization, compatibility, and ease of use, production timeliness, systems reliability, and relationship with users. Each factor is measured using between two and ten questions with responses on a five

point scale ranging from strongly disagree to strongly agree. In this study TTF was used to investigate the application of SMS and measure using statements, how well the technology assisted individual employees in performing their tasks.

1. Mobile Messaging Service

Mobile Phone services are strategic weapons for enhancing business performance. Several previous researches explored such opportunities (Gressgard and Stensaker, 2006; Smith, 2006; Andreou et al., 2005; Buellingen and Woerter, 2004; Mathew et al., 2004). These services play a wide range of roles in an enterprise with varying effects on productivity, profitability, and processes (Baez et al., 2010). The importance of personal innovativeness as a determinant of adoption has been verified in various consumer studies (Lu et al., 2008; 2009; 2; Zampou, Saprikis, Markos, & Vlachopoulou, 2012). Mobile services play a wide range of roles in an enterprise with varying effects on productivity, profitability, and processes (Baez et al., 2010). SMS is a phenomenon that has grown and spread around the globe at an amazing speed (Sulaiman & Zolait, 2012) with an approximate 2.4 billion users worldwide (Grinter & Eldridge, 2003; Short Message Service, 2008). It is so adopted due to its instantaneous nature, location independence, and privacy (Reid & Reid, 2005, in Taiwo, 2010). It has become very popular especially among young cell phone users and is described as the 'killer' application of cell phones since its usage has exceeded all Expectations. SMS is compatible with approximately 5 billion handsets in use in the world today and as such its importance on for marketing and enterprise-level communications strategies cannot be over-emphasized. It is a proven communications channel in business which provides the immediacy and interactivity that no

other medium can offer besides helping to reduce costs and increase ROI as well as provide efficiency and effectiveness on all firms operations.

The study by Knowledge Networks, (2007) revealed that 25% of respondents sent SMS from their cell phones, including one in three (32%) teens in America. UNCTAD (2006) reveal that there were over 122.6 per 100 Inhabitants in Hong Kong mobile phone subscribers in. It was projected that in the year 2011 alone, eight trillion text messages would be sent worldwide (Global Mobile Statistics, 2011, in Tossell, Kortum, Shepard, Barg-Walkow, & Rahmati, 2012). This revelation signals researchers, potential and practicing entrepreneurs on the need to understand influence of SMS on business performance. According to Liang et al. (2007), application of mobile technology may create two kinds of impacts on business operations: facilitate communication among employee, customer and supplier, and increase organizational productivity and profitability by taking advantage of enhanced communicating efficiency and information timeliness and re-vitalize business processes through changing data access patterns. SMS – or text messaging – is an effective tool for business communications because of its simplicity, ease of use and reach. SMS is available on virtually all mobile phones and over all mobile networks with a reach of 5 billion phones worldwide, making it the world's most pervasive communications technology. For example, in the United States alone, consumers exchanged more than 5 billion text messages per day in March 2010 (CTIA 2010). According to Nielsen Mobile, the average consumer sends 600 messages per month compared to using less than 200 voice minutes. It is astounding that almost one quarter of the U.S. population lives in mobile-only households, meaning that they have substituted their landline for mobile phones (CTIA 2010). The payoff is significant considering that more than 90 percent of text messages are opened and read, compared to less than 40 percent of email solicitations, according to research commissioned by SinglePoint in June 2010. It offers

services such as balance enquiries, mini-statements, SMS alerts on credit and debit transactions to an account, pay utility bills and funds transfer

Consumers are increasingly turning to SMS which gives them choices in the way they communicate with businesses. It is evident that the universal accessibility, usage of SMS, and its ability to provide real-time information is a unique opportunities for marketers. According to mBloxinc (2010) enterprises can use SMS to enhance brand awareness loyalty by stimulating dialog and interaction, create frequency with 1:1communications, reach consumers who do not have a smart phone or a data plan , aAcquire new customers, Monetize interactions through timely incentivized offers, Provide consumers with an additional contact option, Create highly targeted campaigns, Build purchaseintent, Promote timelyoffers, Build customerloyalty, Improve customer service and decrease call centervolume/costs , Activate traditional media and make it moremeasureable

In developing countries, more persons have access to mobile phones than to computers and many services and applications have been developed to take advantage of this technology which is said to improve the ability of manufacturing firms to, survive, and thrive in the current technological paradigm. In Kenya, the basic mobile phone is widely used in texting. A lot has been done and said about the benefits of firms embracing mobile technology but very little has been done on analysis of application and influence of short message service on the overall firm performance. Application of SMS include direct text marketing by sending short messages to mobile phone users about promotions, payment due dates, and other notifications. Text messaging is most often used between private mobile phone users as a substitute for voice calls in situations where voice communication is impossible or undesirable. The use of text messaging for business purposes has grown³⁸ significantly during the mid-2000s. SMS for business use include both business-to employee and business to business applicationthat are

used to enhance the mobility and accessibility of employees and the efficiency of business processes (Liang et al., 2007). As companies seek competitive advantages, many employees turn to new technology, collaborative applications, and real-time messaging such as SMS. Some practical uses of text messaging include the use of SMS for confirming delivery or other tasks, for instant communication between a service provider and a client (e.g., stock broker and investor), and for sending alerts.

Industry has had to develop new technology to allow companies to archive targets. Security, confidentiality, reliability and speed of SMS are among the most important guarantees industries such as financial services, energy and commodities trading, and enterprises demand in their mission-critical procedures. By providing cost effective, pervasive access to information, wireless networks and mobile devices are reducing errors and improving access to all information that was once central (Chatterjee, 2003). Businesses can use SMS for time-critical alerts, updates and reminders, mobile campaigns, content and entertainment applications. Mobile interaction can also be used for consumer-to-business interactions, such as media voting and competitions, and for consumer-to-consumer interaction, for example, with mobile social networking, chatting and dating.

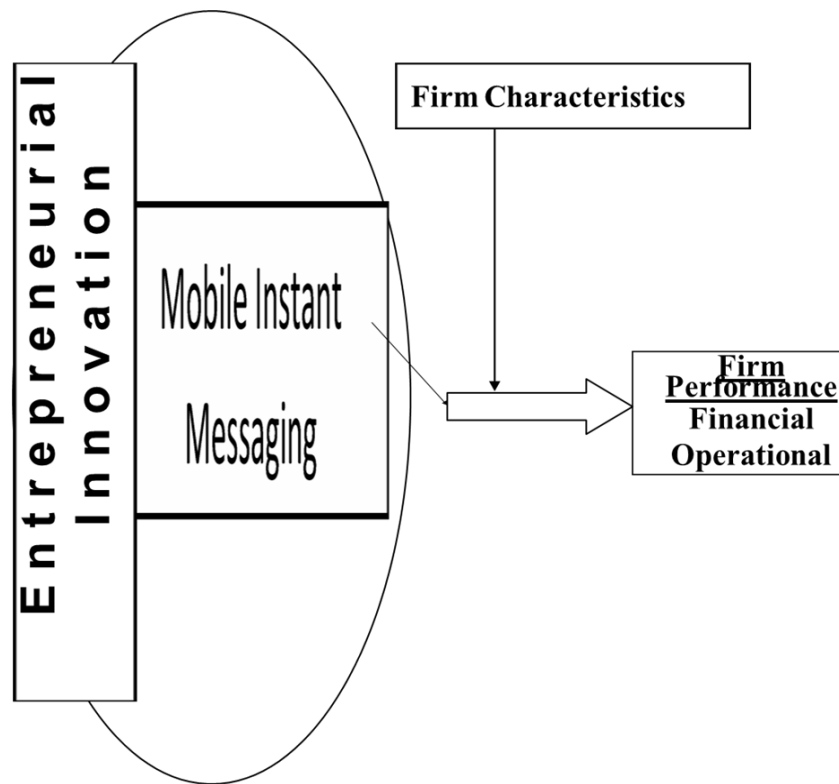
Pangani (2004) mentions mobility, availability (anytime, anyplace), and personalization as important benefits of mobile services. Mobile marketing lets businesses get in front of customers on the devices they use the most: their smartphones and tablets. From text messages to push notifications, mobile check-ins, emails and even social media, mobile marketing helps boost sales by sending coupons, special discounts, announcements and other promotions to highly targeted customers. Churchill and Munro (2001) state that changes in technology led to subsequent changes in the nature of work practices, as a result many work practices that have

been traditionally seen as static in fact involve considerable amount of local mobility. By reaching out to customers on devices that they take everywhere they go, mobile marketing can work wonders on in-person walk-ins and onlineshoppers.

SMS is a unique marketing tool with a variety of useful transactions, that manufacturing firms can implement to improve communications and to deliver content or critical information to their customers instantly with tailored and personalized offers to achieve higher rates of consumption while improving brand awareness and creating customer loyalty. Marketers who embrace mobile marketing have the opportunity to differentiate their services and better serve their customers.

Conceptual framework

In the conceptual framework the relationship of independent variables-SMS which is an advent of entrepreneurial innovation with firm performance was established. This was done taking into account that their causal relationship could be moderated by some firm characteristics.



Independent Variables

Moderating Variables

Dependent Variables

Figure 1: Conceptual framework

Research Methodology:

Exploratory research design with both descriptive and inferential analysis was employed. To ensure a more complete approach to empirical research data on firm performance of 120 manufacturing firms was examined. The sequence of statistical data accumulated over three years was analyzed to track the changes that would have taken place linked to application of SMS to firm operations. In this case data was collected retrospectively and reported for three consecutive years (Yin, 2009). The target population was a total of 200 manufacturing firms comprising all Small, Medium and Large manufacturing firms in Thika town that had been in operation for at least three years. There were four main manufacturing sectors in Thika which included: Agricultural Producer/Processor, Mining or Natural Resources Extraction, Industrial Plants, and Workshops.

Probability sampling techniques which allow generalizability and use of inferential statistics was employed in this study. In this study the formula for determining the sample size and a procedure for categorizing data (Cochran, 1977) was adopted.

The sample size was calculated using the following Formula:

$$e = Z_{\alpha} \sqrt{\frac{pq}{n}}$$

$$n =$$

.This is simplified $n = \frac{z_{\alpha}^2 pq}{e^2}$, where $q = 1 - p$

The sample size required

z_{α} = Confidence Level at 95% (standard normal value at α level of significance of 1.96)
 p = Estimated SMS users
 e = Margin of error at 5% (standard value of 0.05)

With thoroughly estimated SMS usage of between 70% and 80%, p was assumed to be $75\% \pm 5\%$ that $p = 0.75 \pm 0.05$.

Given that $\alpha = 0.05$, 1.96 and $e = 0.05$ $n = \frac{1.96^2 \times 0.75 \times 0.25}{0.05^2}$
 $n = 288.12$ Approximately 288

This is the representative sample size for an infinite population but in this study the sampling frame of manufacturing firms in Thika town as per the list obtained from Thika Municipal Council Business Register dated 27th January 2011, was 200.

Since N is finite the researcher adjusted the sample using the formula:

$$n = \frac{n_0 N}{N + n_0}$$

$$= \frac{288 \times 200}{288 + 200}$$

$$n = 118.05 \quad n \geq 118$$

Using the standard values and formula provided above a sample of at least 118 manufacturing firms was representative.

A two-stage sampling technique was employed. In the first stage firms were stratified into Small employing between 1-49, Medium employing between 50-99 people and Large employing 100 and above. In the second stage simple random sampling technique was applied where each manufacturing firm from each group was given a serial number in its respective category and the numbers picked at random. The total number of large manufacturing firms was approximately 14; Medium was approximately 34 and small was approximately 72. The sample size was therefore 120 in the ratio: 3:7:15 representing Large, Medium and small manufacturing firms respectively.

Data was collected by use of a structured questionnaire. Participants were first asked to provide demographic information and the survey instrument to test the research model was adapted from the original TAM scales. The perceived usefulness of SMS and the perceived ease of use of SMS were measured with five items. A five point Likert scale (1= strongly disagree, 2= disagree, 3=Neutral, 4=agree, 5=strongly agree) was used to determine the perceived level of influence of SMS on the Performance of small, medium and large manufacturing firms. In this study, Acceptance Model (TAM) which predicts user intentions through perceived usefulness and ease of use conceptually related to performance and productivity (Gabauer, 2008; Bouwman & van de Wijngaert, 2009) was applied. Perceived usefulness is the degree to which a person believes that using a particular system or technology would enhance his or her job performance and ultimately overall manufacturing firm productivity. Task –Technology Fit (TTF) model was also used to measure how well the SMS technology assists an individual in performing his or her work tasks and the level of profitability as well as business income.

Coded data was entered into SPSS, cleaned and variables transformed. In this case frequencies, percentages, measures of central tendency, measures of dispersion, graphs, tables and figures were used in addition to descriptive analysis of the responses on statements used for measuring

perceived usefulness and ease of use of SMS using TAM andTTF models. For inferential analysis, several statistical methods were employed including: One- way sample t-test, One-way ANOVA, and Scheffe's test. In this case the assumption is that the dependent variable is normally distributed. If the null hypothesis is rejected then the perceived influence is significant. Any value above 3 is useful in that it means that the respondent's perception was that use of the SMS was critical to the overall performance of the firm. Any selection of a value below the reference line (3) meant that respondents are not satisfied with the service. In this case the maximum value was 5 implying a very high perception of the respondents that SMS had a significant effect on the performance of the firm.

The purpose of an ANOVA test is to determine the existence of a statistically significant difference among several group means. In this study Analysis of Variance (ANOVA) was engaged to compare means across groups and the perceived scores. This was to help calculate the statistical significant differences between the means of the four moderating variables:

- a) Location with three groups (within Thika CBD, 2kms from Thika CBD and 5-10Kms from ThikaCBD).
- b) Entrepreneur's Age with three groups (25-30 Years, 31-41Years, 45Years andabove).
- c) Entrepreneur's religion with three groups (Christianity, Islam andHinduism).

If the corresponding-value from ANOVA test was below the threshold value (0.05) then the pairs would be considered to be significantly different hence the need to engage a post hoc test to see if there was a significant difference between pairs of groups. Scheffe' test which is a

Post-hoc method designed for the situation in which n-sizes are not equal was employed. It is customarily used with either equal or unequal sample sizes when all or many pair wise comparisons are of interest. This procedure was preferred because it has a minimum (5%) chance of making any type-1 error (probability of identifying significant difference when they do not exist).

Research findings and discussion:

The researcher informally gathered that SMS was widely used by most manufacturing firms- in a sample of ten firms, at least seven were found to be using in their day to day business operations. The proportion of manufacturing firms using SMS was roughly estimated to be between 70% and 80%. It was established that SMS was the third (73%) most frequently used mobile phone services. Thus, SMS has a significant positive effect on the overall performance of manufacturing firms. The response rate of this study was 100% which was highly significant and a reasonable representation of the sample and indeed the entire population.

Considering figure 2, there is slight progressive increase in profitability of manufacturing firms from year 2008 and 2009. This could mean that the manufacturing firms were slowly recovering from the adverse effects of post-election violence that rocked Kenya during this period. It is important to point out that there was a remarkable improvement in profitability in the year 2010 indicating that most manufacturing firms were using mobile phone services- among them SMS for business transaction and had recovered from the effects of post-election violence hence improved performance.

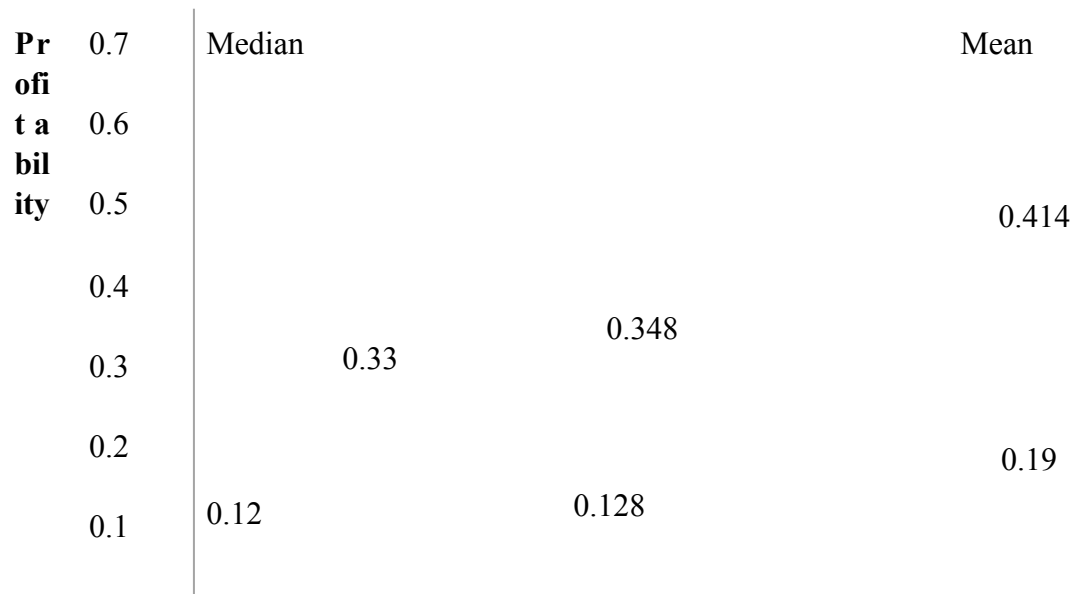


Figure 2: Financial performance of the manufacturing firms

Findings revealed that SMS was widely used by manufacturing firms for: making enquiries from customers (3.3%), informing customers of new prices of goods or services (1.7%) as well as new products (1.7%) and confirmation of delivery of products (3.5%). It was also being used for placing orders with the suppliers (5%), and for giving instructions to the employees among other uses.

Research findings (table2) indicate that many firms agreed that SMS had increased their sales volume (40.2%), profitability (42%), improved cost of quality (52.2%), improved market share position (39.3%), better ROI, ROS and ROE (53%), increased worker productivity and responsiveness (50%), improved customer satisfaction ratings (48.8%) and improved firm's security (39.1%). Over 50% of the respondents (76.8%) agreed that application of SMS was critical for the long-term success of the firm. The results indicate that majority of the firms

felt that usage of SMS had positively affected firm performance. The SMS mean effect on performance of the firm is the aggregate of the measures of the firm performance e.g. increase in sales volume, improved profitability, improved market share position etc. In this case it is 3.63 which is way above the neutral (reference value) of 3.

Table 2: Influence of SMS on Firm Performance:

| Performance indicators | Strongly | Disagree | Neutral | Agree | Strongly | Mean | Std |
|---------------------------------|----------|----------|---------|-------|----------|------|-----|
| | % | % | % | % | % | | |
| Sales Volume | 1.1 | 12.6 | 20.7 | 40.2 | 25.3 | 3.8 | 0.9 |
| Profit | | 10.2 | 25 | 42 | 22.7 | 3.7 | 0.9 |
| Cost of quality | 2.2 | 10 | 17.8 | 52.2 | 17.8 | 3.7 | 0.9 |
| Losses | 62.9 | 27 | 6.7 | 1.1 | 2.2 | 1.4 | 0.7 |
| Market share position | | 11.2 | 22.5 | 39.3 | 27 | 3.8 | 0.1 |
| ROI,ROS and ROE | 1.2 | 7.2 | 22.9 | 53 | 15.7 | 3.7 | 0.8 |
| Productivity and responsiveness | 1.2 | 6 | 14.3 | 50 | 28.6 | 3.9 | 0.9 |
| Customer satisfaction | | 7 | 14 | 48.8 | 30.2 | 4.0 | 0.8 |
| Firm's security | | 9.2 | 21.8 | 39.1 | 29.9 | 3.7 | 0.9 |
| long-term success | 3.7 | 9.8 | 9.8 | 18.3 | 58.5 | 4.1 | 1.1 |

Considering the findings of One Sample t-test depicted in table 3, the results revealed that the effect is significantly different from zero ($p < 0.001$) leading to rejection of the null hypothesis. This implies that the perception of the respondents is that SMS has a significant influence on the performance of manufacturing firms.

Table 3: Effect of SMS on firm performance:

| Variabl e | Mean | Std | t-value | p-value | Verdict |
|--------------|------|-------|---------|---------|-------------|
| SMS | 3.63 | 0.584 | 8.241 | <0.001 | Significant |

In concurrence, this study indicates that use of SMS with customers included informing clients about finished goods (16%), Enquiries (14.4%), advertising/promoting new products (11.2%), placing orders (4%), and following up/making payments (3.2%) with suppliers.

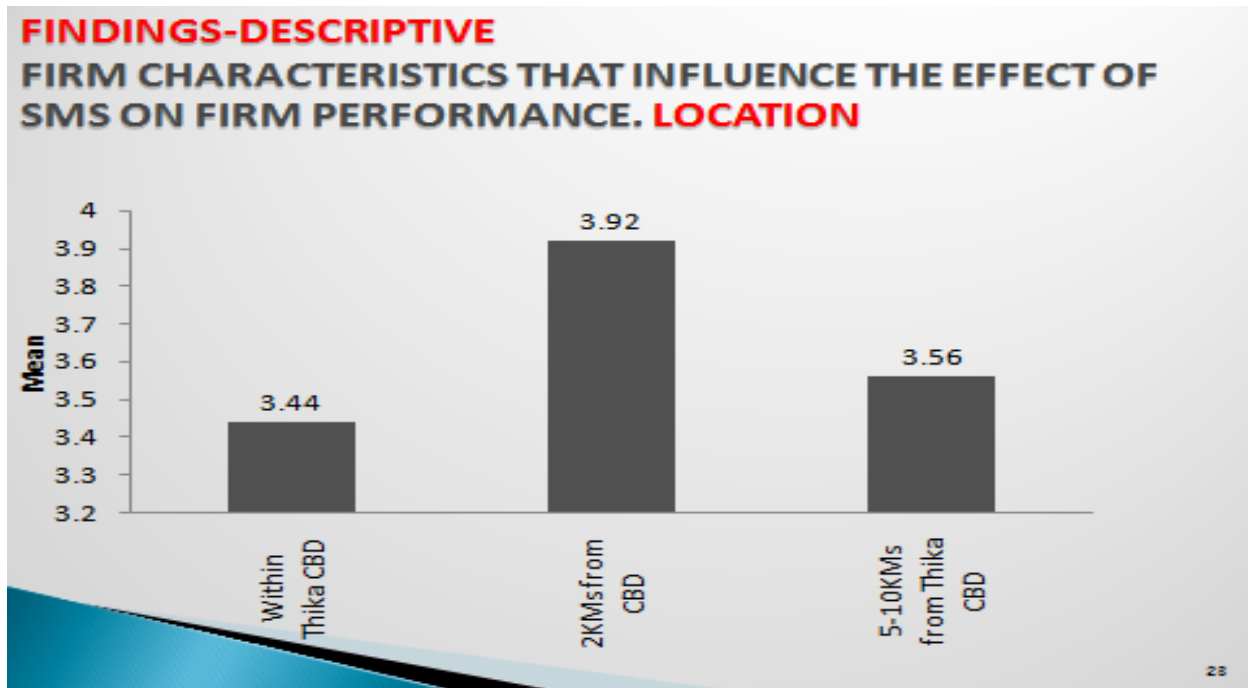
Descriptive analysis indicated that SMS is among the most widely used mobile phone service for various firm operations. This is congruent with Garcia-Montes et al., (2006) findings that initially mobile phones were used simply to communicate, but currently perform multiple roles.

Chang-tseh Hsieh (2007), reports that SMS has been one of the most popular mobile phone services that enable most of the M-Commerce applications today. He further reveals that SMS has provided the ability to send and receive text messages (Each message contains up to 160 alphanumeric characters) to and from mobile phones containing news, stock prices, new

stock. This concurs with the findings of this study where SMS was ranked third most frequently used mobile phone service. The results of one sample t-test revealed that the effect of SMS is significantly different from zero implying that the perception of the respondents is that it has a significant effect on the performance of manufacturing firms. SMS is therefore an ideal technology for business communication where small amount of text information is pushed from one person or firm to another or to many other firms or people.

2. Moderating effect of location:

Looking at figure 2, location of the manufacturing firm seems not to have had any significant influence on the effect of SMS on firm performance. The magnitude of the influence is the same within the CBD, 2Kms away and 5-10 Km away. It must be noted that firm location had a significant influence on the effect of SMS on firm performance at 2kms from the CBD. This raised an interesting question—would distance from CBD be an important factor in understanding the attitude of perception towards SMS? Probably this could be explained by the fact that communication to clients could basically be through sending short messages.



In the one -way ANOVA conducted to explore the effect of location on perceived effect of SMS on performance, location was divided into three categories with reference to the Thika central business district (Within Thika CBD, 2kms from CBD and 5-10 kms from CBD). To determine the output of the ANOVA analysis and whether we have a statistically significant difference between the group means, the interaction effect was: Location and SMS ($F(2, 72) = 4.78, p = 0.011$). It had a p value of below 0.05 indicating that there is a statistically significant difference in the mean effect of SMS on firm performance between the different locations with reference to Thika CBD. The interaction effects were statistically significant as indicated by the p values. This means rejecting the null hypothesis and accepting the alternative hypothesis, that is, the relationship between SMS and firm performance is moderated by the location of the firms. Results revealed that, there was a statistically significant difference between the indicating that at least one category differs with the rest.

Posthoc Analysis

To identify the differing categories Post Hoc analyses, specifically Scheffe' test was applied. Scheffe's test results indicate that there were 2 homogeneous groups identified (Group 1 and 2). CBD and 5 km are in the same group while 5km and 2km are in the other. Since 5 km is in both, it does not differ with either but CBD and 2 km differ. The p values below each group could be taken as the error one would make if one claimed they were different. Minai and Lucky (2011) asserts that location does moderate the relationship between firm characteristics and firm performance and in fact has strengthened the relationship between firm characteristics and firm performance. Findings of this study concur with the findings of past studies in that location has greater influence on the influence of SMS on firm performance 2kms away from the CBD. This can be explained by the fact that most manufacturing firms prefer being slightly out of CBD to avoid having to contend with issues resulting from concentrating businesses within the CBD e.g. packing

Conclusions and Recommendations

From the research findings many firms agreed that SMS had increased their sales volume (40.2%), profitability (42%), improved cost of quality (52.2%), improved market share position (39.3%), better ROI, ROS and ROE (53%), increased worker productivity and responsiveness (50%), improved customer satisfaction ratings (48.8%) and improved firm's security (39.1%). Over three quarters of the respondents (76.8%) agreed that SMS deployment was critical for the long-term success of the firm.

One Sample t-test results indicated that influence of SMS was significantly different from zero ($p < 0.001$) leading to rejection of the null hypothesis. This implies that the perception of the respondents was that SMS had a significant influence on the performance of

manufacturing firms. SMS was ranked third with an average mean of 3.63; a standard error of 0.08 and mean was significantly greater than 3 which mean that it had a significant positive influence on the overall performance of manufacturing firms and was critical for the long-term success of the firm.

SMS is getting more common as an effective medium of communication and business that manufacturing firms cannot afford to ignore. SMS provider may consider innovating the hand set to include more preformatted words and short sentences that will make it much more user friendly. The issue of privacy is of great concern because SMS may be trapped by others people in the mobile phone network. To raise the security level and encourage more manufacturing firms to use SMS for private business communication mobile service providers should explore the possibility of encrypting SMSs with some personal passwords before sending them. This also fits into the growing concern about privacy information of consumers (Caudill and Murphy, 2000; Franzak et al., 2001). We argue that SMS, being more and more popular due to its unique characteristics such as mobility, asynchrony, and intimacy, facilitates business communication and marketing ubiquitously.

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**ICT Adoption in Small and Medium Enterprises: Special Reference with SMEs in
Batticaloa District Sri Lanka**

Mrs.S. Maheswaranathan¹

Abstract

Small and medium enterprises (SMEs) play a vital role not only in developing countries' job creation, productivity, innovation and economic growth but also in developed countries. Also at present, firms of all types are adopting Information and Communication Technologies (ICT) around the globe, not only for cutting costs and improving efficiency, but also for providing better customer service. Further, the rapid development of information and communication technologies (ICT) which changes the existing business structures and ways of communication extremely influence transformation and the growth of SMEs. Therefore, the purpose of this study is to gain a deep understanding of the factors which influence the adoption and usage of ICT by SMEs in Batticaloa District, Sri Lanka and examines the relationship between ICT adoption and its four factors which are perceived benefits, cost of ICT materials, ICT knowledge, and administrative support. The study was conducted through a survey questionnaire covering a convenient sample of 100 respondents drawn from 318 SMEs in Batticaloa District in Sri Lanka. Both qualitative and quantitative methods were used to analyze data. The results of this study show that three factors examined are significantly important to the adoption of ICT whereas perceived cost is found to be insignificant in determining its adoption. Initiating basic ICT facilities is an effective way to help SMEs to adopt internet at relatively cheaper cost.

Key words: ICT, SMEs, Adoption, Cost, Benefits

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Introduction

Entrepreneurship is increasingly recognized as an important driver of productivity, innovation, employment, and poverty eradication on a country. European Union (2011) classified a business with a headcount of fewer than 250 employees as a medium-sized; a business with a headcount of fewer than 50 employees is classified as small, and a business with a headcount of fewer than 10 employees considered micro business. Current era Information and communications technologies (ICT) pay attention and a central position in the development agenda in every sectors of most countries also it is facilitating to socio-economic development. ICT enhances self employment efficiency, reduces costs, and broadens market reach, locally and globally; resulting in job creation, revenue generation and overall country competitiveness Mokaya (2012).

Alam and Noor (2009) argued that nowadays small business are increasingly using ICT due to SME development programs have become a priority in many economies worldwide and have seen an increasing proportion of developing countries boarding on SME policies for economic growth and poverty alleviation. As well as ICT offers great potential for growth, profitability and competitiveness Thika (2013). Knowledge is an asset, must be exchangeable among persons, and must be able to grow in order for an organization to succeed. Information and Communication Technology (ICT) has established itself as one of the most effective tools to exchange and cultivate knowledge.

This paradigm, knowledge resources rather than physical resources determine growth. Scholars such as Burton-Jones (1999) proposed models based on knowledge - led growth, knowledge-centered organizations and knowledge supply to enable companies to thrive in this novel economic environment.

However, the adoption and use of ICT by small enterprises has been below expectations Mokaya (2012) and reports on the success of information-rich economies, many developing countries are still not catching up with the trend (Alam 2009). It is therefore important to analyze the adoption of ICT at the SME level in developing countries like Sri Lanka.

The research questions of this study;

- 1) Is there a relationship between ICT Adoption and SME's performance?
- 2) What factors influences the decision to adopt ICT at the SME level?

Objectives

The main objective of the study is to investigate the adoption of ICT at the SMEs in Batticaloa district and to reach this purpose; the following specific objectives were formulated;

- To examine the relationship between ICT flow and SME performance in Batticola district.
- To identify the factors that influences the decision to adoption ICT among the SMEs in Batticaloa district.
- To recommend policies based on the findings.

Literature Review

A study by Akomea-Bonsu and Sampong (2012) on the impact of ICTs on SMEs in the Kumasi Metropolis in Ghana, found that most of the SMEs in Kumasi reported a positive performance and other benefits of ICT adoption.

Any new technology like ICT may be considered too expensive to many SMEs because of their lack of financial resources (Poon and Swatman, 1999).

Bayo-Moriones et al, (2013) found a positive link between perceived benefits of internet adoption using an empirical study conducted in Spain among manufacturing SMEs. The results exhibit the wide array of benefits for SMEs in adopting internet based technologies and emphasizes on the fact that persistence in use is advisable to derive good results in many aspects of businesses.

Arendt (2008) examined some of costs of ICT as costs of relevant hardware and network equipment, software and licensing costs, as well as recurring costs which may also be considered as investments generating business returns and success. Many of the European SMEs still consider the financial aspects (costs) associated with adopting ICTs to be the utmost barrier towards the absorption of Information and Communication Technologies which defer the

associated performance benefits to the organization.

Research Design and Methodology

The main objective of this study is was to investigate the relationship between the dependent variable (ICT adoption) based on its covariance with all the independent variables (the factors).

To reach the objective of the study the structured questionnaire was administrated among the 100 respondents of SMEs owner, manager and executives personally in two D.S divisions in Batticaloa district, Sri Lanka from the population of 318 SMEs. A purposive sampling was conducted in two divisions in order to reach the targeted sample from March 2016 to May 2016. The questionnaire is designed based on the objective and existing literature of adoption of ICT at the SMEs.

Descriptive data was analysed by use of arithmetic mean and standard deviation. The Likert type scale was used using a scale of SD – Strongly Disagree; D – Disagree; N –Neutral; A – Agree; and SA – Strongly Agree as recommended by Alan (2001). During analysis of data collected by Likert scale, according to Carifio and Rocco (2007), Strongly Disagree (SD) $1 < SD < 1.7$; Disagree (D) $1.8 < D < 2.5$; Neutral (N) $2.6 < N < 3.3$; Agree (A) $3.4 < A < 4.1$; and Strongly Agree (SA) $4.2 < SA < 5.0$. These propositions were followed in data analysis in this study in the interpretation of descriptive data obtained by use of Likert scale.

In addition, a multiple regression analysis was conducted in order to determine factors affecting the ICT adoption in small and medium enterprises in Batticaloa district. Further simple Correlation analysis also was employed in order to bring out the relationship between SME performance and ICT adoption in Batticaloa district. The SPSS software was used for this purpose. The multivariate regression equation $Y = \text{ICT Adoption in SMEs}$

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where:

X_1 = Perceived benefits

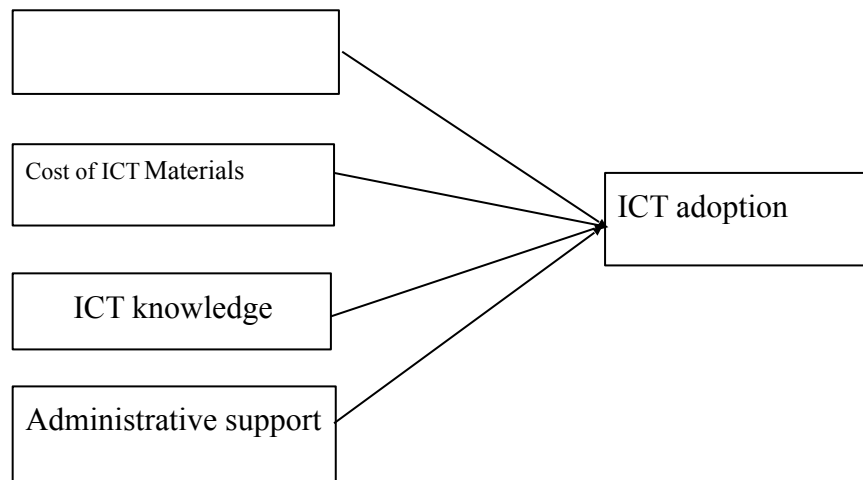
X_2 = Cost of ICT Materials

X_3 = ICT knowledge

X_4 = Administrative Support

ε = Error term

Conceptual Frame Work



Source: Alam & Noor (2009) with some modification

Test of reliability and validity

Reliability

The measurement of reliability provides consistency in the measurement of variables. Internal consistency reliability is the most commonly used psychometric measured assessing survey instrument and scales (Zhang et al., 2000). Cronbach alpha is the basic formula for determining the reliability based on internal consistency Kim and Cha, (2002). The values of alpha for perceived benefits, Cost of ICT materials, ICT knowledge and administrative support yields reliability co-efficient of 0.876 and above. The value of 0.876 generates a strong indication that there is an internal consistency in the measurement.

Results and Analysis

The main objective of this study is to identify the factors that influence ICT adoption by SMEs and investigate the relationship between ICT adoption and performance of SMEs in Batticaloa in

Sri Lanka. The table - 1 analysis the General Profile of SMEs

Table 1 General Profile of SMEs

| Demographic Variables | % |
|-------------------------------------|----------|
| Types of Business | |
| Wholesale and Retail | 20 |
| Professional firms | 20 |
| Education and health | 20 |
| Computer industries | 20 |
| Telecommunication | 20 |
| Age of the Business | |
| Less than 5 years | 55 |
| More than 5 years | 45 |
| Respondents | |
| Owner | 45 |
| Manager | 30 |
| Executive | 25 |
| Computer and internet access | |
| Yes | 68 |
| No | 32 |

According to the above table among the total sample of SMEs 55% of SMEs has less than five years of business experiences and 45% of SMEs has more than five years of business experiences. And 68%of SMES are using computer and internet access for the purpose of business only 32 % SMEs hasn't computer and internet access.

Correlation between SMEs performance and ICT adoption

The correlation analysis is carried out to explore the linear use SME performance and ICT adoption, if it exists. Results indicate that there is statistically linear significant and positive relationship ($r = 0.805$, $p < 0.01$) between the SME performance and ICT adoption (Table 2). Thereby, accept the Hypothesis (H1), the adoption of ICT significantly influences on SMEs performance in Batticaloa district.

Table -2 Correlation between SMEs performance and ICT adoption

| | |
|------------------------|---------|
| Pearson Correlation: r | 0.805** |
| Sig. (2-tailed) | 0.000 |

** Correlation is significant at the 0.01 level (2-tailed). (Source: Survey Data)

Regression analysis Table 3 Regression Analysis

| Adoption of ICT in SMEs | Coef. | Std. Err. | P value |
|---|--------------|------------------|----------------|
| Intercept | .332 | .257 | .196 |
| Perceived benefits** | .179 | .047 | .005 |
| Cost of ICT Materials | -.062 | .046 | .234 |
| ICT knowledge* | .178 | .065 | .013 |
| Administrative support** | .231 | .042 | .0001 |
| *p≤0.05; **p≤0.01; N=100 | | | |
| Overall model: F=50.04; p≤0.0001; R ² =0.658; Adjusted R ² =0.643 | | | |

intention.

The results provided in table 3 showed that dependent variable “SMEs adoption of ICT is explained well by independent variables perceived benefits (+), ICT knowledge (+) and administrative support and to a large extent as demonstrated by R² of 65%. This means that the independent variables explain 65% of the variation in the dependent variable in this study, which is high large. The remaining perceived cost (-) had no significant direct effect on ICT adoption

Conclusions

According to the results, a perceived benefit has a strong, significant relation to ICT adoption. It is expected since past literature has consistently shown that perceived benefit has a significant

and positive influence on the ICT adoption. Most of the respondents believe that doing business over the Internet will generate desired returns in terms of profit.

The relation between ICT knowledge of the employees with ICT adoption is significant. It is important for the organisation to determine its employee's knowledge of ICT because those knowledge or previous experiences may influence organisation decision in adopting ICT.

A significant proportion of SMEs identified the cost of internet as the main obstacle to its adoption.

Administrative support has a significant and strong positive relation to ICT adoption.

Setting up and promoting computing infrastructure was proposed as an effective way to help SMEs adopt internet at relatively cheaper cost. Ultimately, ICT adoption is important for effective decision making and improving the SME sector in an economy which in turn improves the aggregate growth of economy.

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The Experience of Passenger Transport Start-Ups in Greater Cairo: An Analysis

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ABSTRACT

This research explores start-ups that provide passenger transport services in Cairo, Egypt. It studies the various factors that affect these start-ups' operations and lead to their survival or closure. It adopts a qualitative approach depending on both primary and secondary data, in-depth interviews conducted with different stakeholders with different roles, and content analysis. The findings cover a list of external and internal best practices that increases the probability of a transportation start-up's survival. The researcher recommends as well some means of Public Private Partnership that can be implemented in the transportation domain in Cairo, Egypt that might support start-up's operations. The research enables the start-ups and the public sector to better understand the possible impacts of liaising with each other to reach a win-win situation for the sake of both the start-ups and the public sector, where the start-ups would operate the business smoothly and at the same time reduce the burden on the public sector as a public transport provider, thus lead to more effective operations.

Keywords: Start-ups, Transportation, Founders, Entrepreneurship, Ecosystems, and Public Private Partnership.

Introduction and background:

This research explored the experience of Passenger Transport Start-ups in Greater Cairo, Egypt. It focused on three main topics: studying the factors that affect the start-ups operations and either lead to their survival or closure, studying the start-ups support ecosystem, and recommending Public Private Partnerships (PPPs) that can improve the start-ups operations. The motive behind this research is the significance of the transportation problem in Greater Cairo, and the contribution such start-ups might have on the community if succeeded. Yet, many of the initiatives that appeared recently had a very short life span for many internal and external reasons, and during different phases in the start-up's life cycle. Accordingly, this research aims at spotting the light on these reasons, analysing them, and proposing solutions to eliminate them.

Transportation has direct impact on the economy, the environment and people's mobility. On one hand, the air quality is getting worse and there is pollution due to vehicle emissions resulted from the increasing fuel consumption. On the other hand, the large number of people working in places far away from their residence directly affect traffic negatively.

Transportation System in Cairo

Greater Cairo transport system is suffering from several problems such as traffic congestion, insufficient parking areas, as well as illegal parking resulted from inadequate traffic capacities of streets and intersections, incompetent traffic management, and massive growth in private cars traffic due to the inefficient and unreliable subsidized public transport system (Mahdy, 2012).

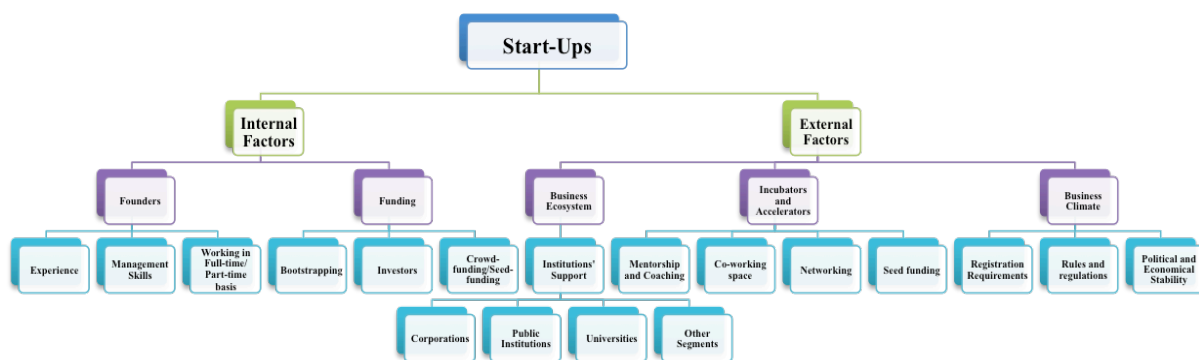
Due to the poor performance of the public transport system, there have been major changes in the methods of travel in Greater Cairo. Private cars have become the favourite mode of transport for a large percentage of Cairenes, and among the public transport users there has been a move from the formal public transport services (metros, buses, minibuses and rails) to the informal and private services (taxis, minibuses, minibuses and three wheeled rickshaws) which have a great impact on urban transportation as it is filling the gaps of the formal public transport services in terms of accessibility, speed, and route flexibility.

1.1.1. Private Transport Problems

Despite the partial success in filling the gap of the public transport services, there are several problems emerged from the private transportation facilities. For instance, the issues related to the minibuses consolidation and services regulation, like safety concerns and operations impact on traffic congestion. Most of these issues are due to the quasi-legal status of many minibuses operations and the deficiency of the regulatory agencies in providing them with necessary infrastructure (i.e. bus stops, parking areas, etc.) further to the absence of implementing the existing driving behaviour regulations. Moreover, the monopoly of service on certain routes leaving users with few, if any, alternate service option, besides the quality of vehicles and the fare policy are other problems (World Bank, 2006). As for the minibuses, most of the drivers do not have license, further to the required route license that its implementation is practically difficult because it does not have to be shown. Cars and other vehicles suffered from the inadequate junctions designs in most of Cairo roads that were planned when the number of vehicles were much lower, also lack of facilities for car parking impeded traffic and hindered pedestrian movement because of the cars parked on sidewalks and roadways (World Bank, 2006).

Since Egypt ranks the fifteenth amongst the countries in the world in terms of population size because of the dramatic population growth (Worldometer in 2016). As a result of the high rates of population and challenges that the government faces in meeting the transportation and mobility needs; solutions have been more complicated and untraditional, that is why citizen-based innovation and initiatives are strongly encouraged to take place in solving the problem. Few years ago, new private initiatives in Egypt have offered diverse solutions to alleviate transportation problems in Greater Cairo, such as crowdsourcing mobile applications and customized ride sharing platforms, promoting fewer car usage and ownership; besides other flexible routing transit services that facilitate commuters' trips.

Although the emergence of transport start-ups and the solutions they provided might help in solving the transport complications, and might have a great contribution to the community if successful, some of them had a short life span for various internal and external reasons (as shown below, figure (1)), and might be terminated at any phase of the start-up's life cycle. The objective of this study is to explore the concept of start-ups while reflecting on passenger transport start-ups and franchising private companies. The study aims to describe the problems and challenges start-ups faced that might affect their performance or survival. It aims as well at clarifying the role of



support channels and evaluating their effectiveness from the start-ups point of view. Also, this research attempts to know the factors that make two start-ups, having almost the same idea and somehow offering the same service, one survives and the other disappears.

Figure (1) Conceptual Framework

1.1.2. Literature Review

There are barriers to start a new venture, despite the presence of many people who have ideas and want to generate something, as well as the great shifts in business and technology that reduce the cost (Gruber, 2014). Individuals think that manufacturing a product or delivering a great service is the toughest part of being a successful business owner, however the hardest part is what comes afterwards like involving customers, sharing value and persuading them to give you money; taking

into consideration the time span that should be short for the sake of business survival (Ready, 2011).

The following section is discussing the different variables that affect the entrepreneurial domain.

Founder's Experience and Leadership

Oe and Mitsuhashi (2013) suggested that entrepreneurs should develop strategies to avoid failure that majority of new start-ups are exposed to, including the formulation of business plan, business environment, legal arrangements, and organizational routines. For start-ups rapid growth, expertise in the areas of human resource management, gaining competitive advantage, and operating procedure development are needed. It has been proven that founders who learn by doing, generate ideas concerning business opportunities and improve predictability of customer demand and future technologies. Moreover, previous job experience of the founders is beneficial in accelerating start-ups growth.

Moreover, Beckman et al (2007) recommended that there is a correlation between prior experience in human capital and positive organization outcomes, advocating that team composition, experience, and turnover are altogether essential for creating new perceptions to the firm and increasing the probability of an entrepreneurial firm to succeed.

Also, Rubenson and Gupta (1996) indicated the scholars and theories that studied entrepreneurship and recognized that there would be a positive connection between founders' educational level, general management experience, relevant industry expertise, diversity of founders' practical experience and the founders' tenure. Furthermore, there was a suggestion that if the skills and competencies of the organization's leader are outdated; an up-to-date replacement should be assigned.

Moreover, Ensley et al (2006) studied the leadership in the new ventures and the impact of vertical against shared leadership inside of top management teams and how it affects the start-ups' performance. The researchers studied two samples, in which the vertical leadership branches from a formal or an appointed leader (ie. CEO), while the shared leadership stemmed from within a team as kind of leadership distribution. They concluded that shared leadership is crucial for the new ventures growth and development. The growth of the new ventures not only requires the leadership of the principal founder, but also needs the input of a group of talented individuals from within. Thus, the selection and improvement of the top management team is of a great importance than only focusing on an idol CEO.

Additionally, Beckman et al (2007) studied the impact of the top management demographic characteristics on the firm outcomes and provided in-depth analysis of the relationship between the entrepreneurial team and the outcomes, using two measurements for the new venture success, which are the ability to attract venture capital² (VC) and the ability to successfully complete an initial public offering (IPO). The key independent variables were functional diversity, turnover and background affiliations which impact the overall new venture performance. They reached that the prior team experience concerning "What and where" are main influencing factors in the entrepreneurial performance and success. They also concluded that diversification in the top management team (TMTs) help the new venture to reach their milestones, which brings new knowledge for them. Those results are similar to what Kaiser and Muller (2015) reached about the good impact of diversity on entrepreneurial firms' formation and performance.

² Dollinger (2005, p.266) defined venture capital as "outside equity that comes from professionally managed pools of investor money"

However, when Grilli (2010) studied the prior experience variable, he emphasized the role of prior experiences of founders in industry crisis and their ability to apply exit strategies. He examined the relation between the human capital and the entrepreneurial firms' survival during industry crisis period. The study suggested a heuristic model of the relationship between founder pre-entry work experiences and firm exit routes during industry shocks. He mentioned that "Two main characteristics affect the relationship between entrepreneurial pre-entry work experience and firm exit decisions during an industry recession: namely, the level of outside options available to entrepreneurs to escape the industry crisis and the economic value of the ICT business project at the time of start-up" (Grilli, 2010, p. 628). The findings were interesting as the managerial experience exerts a significant negative impact on 90% level of the probability to exit and that the pre-entry work experience exerts a significant positive effect on the probability to exit or being merged and acquired. The research indicated that founders with high level of specific work experience followed merger and acquisition (M&A) exit route during industry recession periods, while founders with a higher level of generic work experience are associated with the closure option. Less experienced entrepreneurs may survive in markets simply because they do not have any other more profitable alternative.

These results is contrasted with those reached by Oe and Mitsuhashi (2013) which indicated the role of information distribution and interpretation activities in boosting the fast growth of start-ups. The research used the breakeven point analysis as a main goal for the new ventures where costs are equal revenues, which is the first milestone for the founders. The results demonstrate positive impacts of job and same industry experience on the rates at which start-ups reach the break-even points but did not support the founding experience effects. The study highlighted the importance of information distribution and interpretation to increase the positive relation between pre-founding experience and the start-ups growth. It also mentioned that forming a systematic process to sort and utilize information increase the start-ups benefits from those information. The results indicated that the pre-founding experience has no significant effect on start-ups' growth; this may be caused because the data did not differentiate between success and failure founding experiences. It also mentioned that the high commitment to share the founders' previous experiences might be harmful except if these experiences were in the same industry field so the shared information should be selectively chosen. The main findings were that the start-ups reached their break-even points earlier when their founders have pre-work experience in the same industry, and that impact became stronger when these firms commit more resources to information distribution and interpretation. Those findings are similar to what Cassar (2014) has reached while studying the impact of industry and start-up experience on entrepreneur forecast performance in new firms. The research explored whether the industry and start-up experience improve the entrepreneur's forecast and evaluation of the new project or not. It mentioned that most new ventures fail to achieve the entrepreneur expectations and sunk. Many arguments agreed that work and start-up experiences improve the entrepreneur judgments. While the main argument of this research was that work and start-up experience could increase human capital, and improve the entrepreneur's judgment, only if the impediments to learning and applying knowledge were overcame. Findings were realistic and cope with other researcher about the positive impact of the work experience on the entrepreneur judgments and tend to have more realistic expectations. The results also showed that the industry

experiences are more beneficial in industries with greater uncertainty, such as high-tech industries.

However the research found no evidence on the benefit of the start-up experience whether in the same industry or not in improving the entrepreneur's expectation.

Investment and Funding

Besley (1995) emphasized that the institutional environment has a substantial influence on investment decisions. Also, North (1987) indicated that institutions set the rules in an economy by defining incentives, decreasing uncertainty and controlling transaction costs. While Michael Crum and Thomas Nelson (2015) pointed out that countries differ to the extent in which property rights are protected and currency is stable. If there are unfavourable conditions like high inflation rate and weak property rights, investment decision-making would be hard and organizations might face uncertainty. Thus, business plans are most likely affected by these factors, particularly the new investments. Entrepreneurship appears to flourish even in tough environments. Those factors might not exclude entrepreneurial investment completely, but make it more challenging to happen through restricting new ventures investment that yields high-expected returns within short payback periods. Moreover, Firms and individuals became more hesitant, in high uncertain inflation, to enter into contracts and even if they entered, it would be short term. While high levels of inflation led to negative economic outcomes, such as raising the rate of returns needed for business investment that makes business operation less attractive. Consequently, Individuals would undertake new businesses when the projected return on investment is adequately high. On the contrary, when inflation is low, entrepreneurs will invest in low return entrepreneurial projects because of the low discount rate of these projects at that time.

Sanyal and Mann (2010) analyzed the financial structure of the start-ups to provide a benchmark for any financial problems faced by start-up firms during internal or external crisis. The research differentiated between four types of finance:

Internal equity: The equity is owned by the entrepreneur or his family/spouse/employees of the company and this type represented about 26% of start-ups covered by the research.

Internal debt: when the entrepreneurs take loans from the family or any personal sources and it counted about 3% of start-ups financial structure covered by the research.

External debt: when the business takes loans from banks, the government, business loans from business credit cards, other businesses, and/or from other sources. 70% of start-ups use external debt to start their business. Of this external debt used to fund start-ups, 58% of the value of external debt is credit card debt, 5.6% is bank debt, and the rest are loans from government and other sources.

External equity: when equity financing is obtained from angel investors³, other businesses, government, venture capital, and/or other sources. Approximately 1.4% of ventures use external equity financing in their initial year of operation.

³ Authors defined angel investors as "wealthy individuals who provide capital for start-up companies" (Degennaro, 2010, p.55).

The findings of Sanyal and Mann (2010) proved that start-ups with tangible assets as potential collateral are more likely to use external debts. Entrepreneurs with other businesses as collateral are less likely to give up control to external equity investors. On the other hand, all else equal, start-ups with higher human capital embodied in the entrepreneur or more intellectual property assets have a lower probability of using debt than other start-ups, consistent with the higher asset specificity and lower collateral value of these assets. While start-ups that are solo, first time, home office based, small, less organized mainly depend on internal equities and debts and credit cards.

Those results could be analyzed through a research conducted by Calopa, Horvat, and Lalic (2014), the research analyzed the start-ups development stages and the potential financing sources at each stage. The research was mainly investigating the start-ups in Croatia to determine if it made a shift from traditional to newer methods of financing. The data was obtained from online questionnaires conducted with previously selected start-up companies in Croatia. The main covered points were:

Main sources of finance used by Croatian companies.

Their development stage and the used finance methods.

The preferred financial source (informal or formal/ traditional or modern).

The findings were interesting as it showed that the Croatian start-up companies prefer traditional and informal financial sources with emphasis on family and relatives finance. While after passing the first period the founders begin to search for more professional source of finance, such as business angels, either foreign or Croatian ones, and seed investments, although the level of development of the company and the experience of managers are not necessarily associated with the financing method.

Korosteleva and Mickiewicz (2011) studied the determinants of start-up financing covering wider geographic range; they investigated 54 countries during the period from 2001 to 2006. The research aimed mainly to determine the Globalization impact on start-up finance. They mentioned that raising capital to operate and launch is one of the main constraints faced by new ventures. The start-ups financing problems are accompanied by a weak business environment and inadequate legal framework.

The research analyzed mainly the impact of the financial environment, property rights system, international financial flows on financing the start-ups, and determined the role of informal sources of finance. The effect of net financial flows from abroad on the start-ups. The main findings could be summarized as follows:

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The strong protection of property rights has positive impacts on external financial flows and its size.

Financial liberalization increases both the likelihood of the use of external finance and its volume in start-ups. It also creates ample opportunities for entrepreneurs to accumulate savings to be subsequently used for launching their own businesses.

Informal finance while facilitating start-ups' access to external finance does nothing to enhance large-scale project.

Inflow of remittances leads to higher volume of own finance.

The larger share of offshore deposits affects both external and own funding negatively.

It is obvious that property right plays an important role in the business segment. Crum and Nelson (2015) pointed out that individual's decision of whether to start a business or not, is a decision of how he/she will invest his/her time and resources (counting property) which will be influenced by how solid property rights are. Absence of formal property rights might constraint individuals' capability to get capital for starting or expanding a business. Further, weak property rights discourages investment as those who invest in new ventures do not know whether they are going to keep any generated profit and/or improved property or not, and vice versa. When property rights are pretty strong, both entrepreneurs and angel investors might accept longer payback intervals and lower financial returns. Whereas, when property rights are comparatively weak, their requirements will be shorter payback intervals and higher financial returns. Crum and Nelson (2015) added that Angel investors are like entrepreneurs, they provide risk capital and expose to significant risks in their investments. But they are diversified, unlike entrepreneurs who are usually undiversified, because of having a large sum of personal wealth not invested in start-ups besides money invested in different new ventures, by financing several deals individually or with another angel investors. Angel investors use complicated tools for screening new ventures before investing in them, therefore, to a great extent, angel investors assess their market and business exposure to market accurately compared to entrepreneurs. Hence, they asked for high compensation returns when their investment is subjected to larger degrees of risks.

Kerr and Nanda (2009) also considered that the financial constraints faced by the entrepreneurs are one of the biggest hurdles to starting and growing new business. The researchers aimed to determine the impact of financial market development on entrepreneurship and examine how tendencies to start new businesses relate to personal wealth or recent changes therein. They reviewed two major streams of work examining the relevance of financing constraints for entrepreneurship. The main findings were that financing constraints are one of the biggest concerns impacting potential entrepreneurs around the world; whereas the public policies have a main role in stimulating the start-ups role in the economy. Also, it also concluded that wealthy people tend more to be entrepreneur because of the lower risk aversion and preference for being their own boss.

Business Ecosystem

Peltoniem and Vuori (2004, p.6) highlighted that in 1993 Moore introduced the concept of business ecosystems, he defined a business ecosystem as: "An economic community supported by a foundation of interacting organizations and individuals--the organisms of the business world". While Peltoniem and Vuori (2004, p. 13) defined business ecosystem as "A dynamic structure, which consists of an interconnected population of organizations. These organizations can be small firms, large corporations, universities, research centres, public sector organizations and other parties, which influence the system."

Moreover, Moore (1993) mentioned that the companies cannot be considered only as a member of a single industry but a part of the Business Ecosystem that crosses variety of industries. He also differentiated the development of the business ecosystem to four stages mainly which are (Birth, Expansion, Leadership, and Self-renewal); each stage has its own co-operative and competitive challenges. He also structured the business ecosystem for new ventures to three layers, which are:

Business Ecosystem: Investors, trade associations, research intuitions, public bodies, investors, other stakeholders, competitors, and unions.

Extended ecosystem: customers, complementors, suppliers' suppliers, and standard bodies.

Core business: suppliers, core contributors, and distribution channels.

Heikkila and Kuivaniemi (2012) agreed on those results and added a deeper analysis for the business ecosystem of new ventures. This research identified how the business ecosystem develops around a service business idea proposed by the entrepreneur. The research aimed to recognize the different domains of players that are or should be involved in the ecosystem while it is under construction. He stated that the expansion of an ecosystem can be analyzed and even perhaps planned by considering six differing sub-ecosystems: technology change, research insights, changes in customer demands, competitors, social environment, and legal and policy environment. He mentioned that innovative ideas might come from big companies, but they are proposed and drove by entrepreneurs or spin-off companies, adding that many new businesses die young, but there are possibilities to be restored later through ecosystems that support the growth.

In the same line, Valkokari (2015) provided a scientific and more defined definition for ecosystem types and their interaction. His research was a descriptive one as he analyzed previous researches conducted in the same field to conclude a clear definition for business ecosystem types. The purpose of his conceptual article was to define what is meant by different concepts regarding an ecosystem and especially describe the relationships between the three different ecosystem types: business, knowledge, and innovation ecosystems. He mentioned that "First, business ecosystems focus on present customer value creation and large companies are typical key players within them. Second, knowledge ecosystems focus on the generation of new knowledge, and research institutes and innovators, such as technology entrepreneurs, play a central role in these ecosystems. Third, innovation ecosystems occur as an integrating mechanism between the exploration of new knowledge and its exploitation for value co-creation in business ecosystems." Valkokari (2015, p. 22). The research emphasized that the three ecosystems are interrelated and interact with each other to form a complementary ecosystem for the new ventures.

While Smith, (2013, p.25) investigated the risk of entering the new ventures specified business ecosystem. He identified the business ecosystem by "a strategy for entrepreneurs to access and exchange many different aspects of value, resources, and benefits". He mentioned that the limited resources and choices available for entrepreneurs push them to accept higher risks to establish their business. Choosing and evolving in a certain business ecosystem has benefits and risks. These risks are significant and can inhibit the start-up's growth. The study reviewed previous researches conducted in the same field and linked the results to determine how to overcome the risks related to different business ecosystems and provided recommendations to avoid those risks. The research findings of Smith (2013) related to the category risks of business ecosystems are mainly: general risks (nature of relationship between actors/keystone & Nature of control), Platform risks (loss of intellectual property rights, keystone interdependence), Community risks, and replication of the company business model by its competitors. While risks related to participating in a certain

business ecosystem related to four areas: general risks (dominant actors, relationship type between actors, and change in actors, alliances), keystone risks, (location in the value chain), and standard risks like war or rapid change. The research provided five recommendations to avoid those risks, which are:

Identify the category of business ecosystem before entering.

Conduct a systematic pre-entry inspection of the business ecosystem before entering.

Pay attention to horizontal relationships, because risks are different between actors.

Pay attention to coalitions, because they can add value or destroy value.

Practice real-time resource management after entering the business ecosystem

Business Accelerators

Miller and Bound (2011) conducted research to understand how to better support the growth of innovative start-ups and determine the role of start-ups' accelerators problem. They mentioned that the number of accelerator programs has grown rapidly in the USA and Europe over the past few years and that the accelerator programs created dozens of successful start-up companies. They also mentioned that the rise of the accelerator programs is associated with the change in the start-up economics, as the costs of new technology start-up projects decreased sharply during the past few years. The findings were realistic as they reached that the accelerators have a positive impact on founders through increasing their knowledge and creating powerful network. Accelerators also benefit angel investors and venture capital investors through creating a pipeline of investable companies, scouting and filtering talent and connecting them with a concentrated stream of mentors and strategic resources. Accelerators help in building trust between investors, founders and stakeholders.

But there are different results regarding the accelerators under the public umbrella. Gonzalez-Urbe and Leatherbee (2015) investigated whether government funded business accelerators create value for start-ups or not. They focused on the case of Start-Up Chile (SUP), an accelerator sponsored by the Chilean government. Their research focused on governmental accelerator program that gained participation of public and private sector. The results were unexpected, although they concluded a positive impact of accelerator services related to mentorship on start-up performance, as whenever mentorship is bundled with some basic services such as co-working space and seed capital will lead to an increase in fundraising significantly, more hire, and fast customer base growth. Yet, they found no evidence that the basic accelerator services such as money and space led to the development of venture fundraising.

Whilst Fehder and Hochberg (2014) discussed the impact of accelerators on venture capital's supply, they attempted to assess the impact of such programs on early stage venture capital funding. They mentioned that the role and efficacy of the seed accelerators was little at best and the government used the accelerators hoping to transform their local economies through the establishment of start-up technology clusters. The research focused mainly on a particular aspect of the ecosystem, which is the availability and provision of seed and early stage venture capital (VC) financing for start-ups. The research aimed to measure the impact of start-up accelerator formation on the venture capital financing activity. The results could be summarized as follows: accelerators regionally influence the business ecosystem. Accelerators present more seed and financing activity

in early entrepreneurial stages, which is not only restricted to accelerated start-ups, but also extended to non-accelerated companies, as what is offered in the accelerator such as mentorship activities and the demo day might increase the non-accelerator companies' exposure in investors area.

Business Incubators

Al-Mubarak and Busler (2013) conducted a research based on a wide range of literature review, focused on the definition and role of the incubators. The paper identified the strength and weakness of business incubation in developing countries. They mentioned that incubators led to economic development through a three-stage cycle, which are 1-incubators phase, 2-post incubators phase and 3-extension phase. The findings showed the mixed support offered within the incubation phase to the entrepreneurs and the jobs created by the start-ups inside the incubators. Moreover, it highlighted the success of the graduated companies in the Post-incubation phase where each start-up has reached the maturity stage and being able to stand free in the local market after leaving the incubator. Whereas in the Extension phase, the graduated start-ups will have the ability to expand in the market and will positively affect the economic development, because of the incubators' outcomes that embraced entrepreneurship, graduated companies, and job creation.

In addition, Garibay et al (2013) reached the same results. They presented a preliminary study on the regional impact of business incubation in ecosystem knowledge-based companies. Their research aimed to define the impact of business incubation on economic development of the entire region. They mentioned that the positive impact of business incubation on technology start-ups was proved; however its impact on the entire region was still unknown. They reached that business incubation has a positive impact on the regional economic development, but only if the support provided by an incubator is tailored to the individual firms.

Also, Cantu (2014) reached the same findings in a research exploring the role of the incubators in the business environment. The study aimed to investigate the roles of incubators and accelerators in the Entrepreneurial Network. The research applied qualitative perspective with a multiple case study approach. The findings were similar to the previous researches; indicating that the role of incubators is to accelerate the path of new ventures, facilitate the relationship between different actors in the business ecosystem, promote the development of local economy and reach competitiveness.

Networking

Witt (2004) analyzed the role and impact of entrepreneurs' networks on the success of the start-ups. He clarified how we can measure the impact of networking and how to quantify the start-up success. By reviewing the existing literature on the relationship between networking activities, entrepreneurs' network-by-network partners and success of start-up. The research indicated that the measurement of the start-up's success depends on its phase; in the creation phase the success measurement would be the actual foundation, while in the proving phase the success measurement would be the survival, and in the growth phase the success measurement would be the profits and

growth rate of sales and employment. The research reached that there is a positive relationship between the degree of entrepreneurial networking activities and structural measures of the founders' network, and that the relation between network structure (size and diversity) and the respective start-up's success is expected to be inversely U-shaped.

Huse (2014) reached a near result in his thesis that examined the impact of the networking on the entrepreneurial process. The thesis purpose was to determine how the entrepreneur uses his/her network to plan, develop, and accelerate his/her business. This study was based on the combination of two strands of theory: entrepreneurship theory and network theory. The thesis reached that the entrepreneur's networking is a vital part of the entrepreneur's decision to start business. The research provided evidence of the important role of well-developed network during the entrepreneurial process, and that the different feature of the network enhances and facilitates the resource acquisition. The thesis presented evidence that informal networks of strong and weak ties are used differently throughout the entrepreneurial process to gain information, knowledge and resources.

Likewise, Christopoulos (2011) reached the same results in his thesis, in which he explored the role of networks in establishing an entrepreneurial venture. He aimed to determine the extent of the relationship between entrepreneurship and networks. The thesis concluded that the network assist the start-ups to overcome establishment challenges. Also the network benefit is not tied by only one stage but it continues throughout the business life cycle.

Mentorship

St-Jean and Tremblay (2011) emphasized the role of the mentoring process in accelerating the entrepreneur's knowledge. The study investigated the impact of the mentorship on the entrepreneurial process through helping the entrepreneur to identify the opportunities. The research surveyed novice entrepreneurs and the findings reached that the mentees more trust their capabilities in recognizing opportunities when they learn more with their mentor. Also, it has been indicated that mentorship might be a good method in supporting novice entrepreneurs in the start-up growth and in the expansion of their SMEs.

In the same line, St-Jean (2011) aimed to explore the main functions of the mentors for novice entrepreneurs. He mentioned that the provision of many mentorship programs accelerate the entrepreneurial process. Many experts advised mentors to improve their performance in order to benefit the mentees. The research aimed to determine the main functions of the mentors to benefit their mentees. The results confirmed mainly four psychological functions (reflector, reassurance, motivation, and confidant), four entrepreneurial career-related functions (integration, information support, confrontation, and guide) and a role model function. These results are useful to raise the awareness of volunteer mentors about functions they may likely exert when they are twined with novice entrepreneurs.

Also St-jean (2012) studied the impact of mentoring on the development of novice entrepreneurs. He mentioned that mentoring is an essential element in the professional development of entrepreneurs. This study aimed to understand how to maximize the learning and benefit gained during the mentoring process. The research investigated the influence of the mentor characteristics on the mentoring process. The research concluded that to maximize the benefits of mentoring process, many factors should be considered. The study demonstrated that the mentor's career-related functions are the most effective factor in the development of learning, followed by psychological functions and the role model function. In order to foster these functions, trust and perceived similarity are needed to build a strong and high-quality relationship, as is mentee self-disclosure.

Pivoting

Ries (2011) identified Pivot by a structured course correction designed to test a new fundamental hypothesis about the product, strategy and engine of growth. He mentioned that when the company pivots, it starts the process all over again as it establishes a new work frame. A successful turn on and a more productive project is the sign of the good pivoting process. He summarized the types of pivot as follows:

Zoom-in pivot: a single feature of the product became the whole product.

Zoom-out pivot: whole product became a feature of a larger one.

Customer segment product: the product is partially confirmed, solving the problems for other customer segments.

Platform pivot: A change from an application to a platform or vice versa.

Business architecture pivot: the start-up changes its production strategy from high margin/low volume to mass market or vice versa.

Value capture pivot: how do companies capture value?

Engine of growth pivot: change in the company growth strategy to a faster one.

Channel pivot: delivering the same solutions through different and more successful channels.

Technology pivot: achieving the same solution using a completely different technology.

Also Hart and Wood (2015) mentioned that Pivot is a sharp correction point in a fledging company's business model, which is done by big public companies. They emphasized the role of culture pivot that when the company pivot strategically, the lead director has to make sure that the

company is pivoting culturally as well, he/she owes that to the shareholders.

Whereas LaRose (2014) presented a paper that determines the meaning of the pivot point and its role in start-ups' success. The research defined the pivot point by "the juncture at which a fledgling company realizes its original business plan must be reshaped or even scrapped entirely. The inability to recognize the need for such drastic change is often what dooms start-ups, while those that can adapt tend to have a greater chance of success." The paper emphasized the key role of the pivot point, as the business should evaluate the capital costs and human resources to determine how to proceed.

In addition, Comberg et al. (2014) analyzed the main influencing factors affecting the pivot process for start-ups. They mentioned that the probability of start-up failure and struggle is high, so the pivot is a crucial point to pass the hard times and correct the path. The research determined six factors that influence the pivoting process in start-ups, which are the role of founders, sustainability of the business model, cash and financing, market conditions, business financials and new technology. The role of the founders was the strongest driver of the pivot, as in most of the start-ups; founders combine both ownership and management. The research also emphasized the interrelation between the market conditions' factor and new technology factor.

It has been concluded that there are many variables that affect the start-ups sustainability, both internal and external factors, but most importantly the human capital is one of the core influencing factors in each business. Start-ups founder's demographic characteristics and work experience are critical factors that have been analyzed to determine their impact on start-up businesses. Moreover, it is obvious that to start any business there should be a good amount of money, therefore, funding is considered one of the main factors that affect start-up's growth and one of the main milestones for each entrepreneur to construct the business. Furthermore, the business success not only depends on the entrepreneur and funding factors but also the business ecosystem is very crucial component in the success equation. Since the Business Ecosystem is the surrounding environment for any new venture, it is comprised of all bodies interpret the business during its life stages like investors, associations, research institutes, competitors, customers, suppliers, public and private sector...etc. that is why it plays a vital role in the business's life cycle. Looking at the current weak economic conditions that affect all the economic aspects and leave its shadow on the inefficient use of the resources. The overall slowdown led to a higher unemployment rate. Many policies have been conducted to overcome these obstacles but few ones left good consequences on the employment rate. Start-up accelerators programs are one of those successful policies that benefit the whole economy. Additionally, the business incubation programs, which are an Eco-social programs that aim to accelerate the start-up role in the economy, that are provided by the accelerators and incubators to coach entrepreneurs through business training courses and guide them to define their way to success. The incubators help start-ups in creating new jobs, developing a better economic system and accelerating the new ventures. Moving to networking that is one of the main features of our era, any business depends on the surrounding network to achieve its objectives, as without network how could business expand. Many literature indicated a positive relation between networking and entrepreneurial development. Also, mentorship is an important factor for businesses to expand and grow efficiently. Mentoring is an advanced method to guide and build professional entrepreneurs. Moreover, mentoring is considered as an essential element in helping entrepreneurs to build their knowledge and determine the appropriate opportunities and seize them. Last but not least, pivoting is a crucial point in any new venture; it is the point of change needed. It should not be a 180-degree change but it should be a corrective path to the start-ups. Entrepreneurs

have to recognize this moment when they realize their wrong path then correct their way and pivot their start-ups.

Because there is a gap in the literature, there is a lack of research with particular focus of comparing “Collapsed” versus “Sustained” start-ups in Cairo, specially in the transportation field. Hence, this study develops a base for further research in this area.

1.1.3. Research Methodology

Since the qualitative method is useful in exploring specific experiences, it indicates evolving concerns and the type of the data is illustrative. In addition, this technique answers the why and how questions that could not be answered in detail in the quantitative method. Consequently, as for the data collection, the researcher used the qualitative approach in the research because of its flexibility in measuring the reasons behind a specific behavior both in depth and in detail. Besides the scarcity of the literature that covers the area of transportation services provided by start-ups, this research depended mainly on primary data through conducting in depth semi-structured interviews with founders and co-founder of passenger transportation start-ups that encourage the car-pooling and bus-pooling services in Cairo, Egypt, in addition to accelerators and incubators administrators, in which a couple of them are affiliated to Egyptian Ministries, and former consultant to the Minister of Transportation, which were effective and suitable to the nature of the study. Before collecting the data, a pilot interview was conducted with a service provider to check the respondent understanding and further questions were included. Also, an informal discussion with an expert and an investor was done that widened the research scope because of his expertise in the field of entrepreneurship. While the information of secondary sources was assembled from the websites, formal Facebook pages, literature review, World Bank reports, and Newspapers. Moreover, published data in books, theses, and refereed journals were used in the research completion. Exploiting the aforementioned methods, triangulation, validity and reliability of the study were met.

1.1.4. Sample Design, Sample Selection and Sample Area

There are two types of initiatives started in Cairo that provide Passenger Transport services, which are local start-ups and private franchising companies. To avoid sampling bias, this research focused on both types of start-ups; including the collapsed start-ups as well as the continuing ones. The sample included different Passenger Transport services such as two bus-pooling service providers (X and Y), two car-pooling service providers (A and B), and two car-hailing service providers. In addition to different types of incubators and accelerators, because of their important role in the operations of the start-ups that facilitate major issues in the start-ups functions from different dimensions, whereas most of those services are offered by accelerators and incubators: co-working space, access to equipment, seed fund, mentorship, networking, and connection with peers. As shown below in figure (2), there are different types of accelerators and incubators in Egypt which were interviewed in this research, such as non-governmental organization, university-based accelerator, and centers affiliated to ministries.

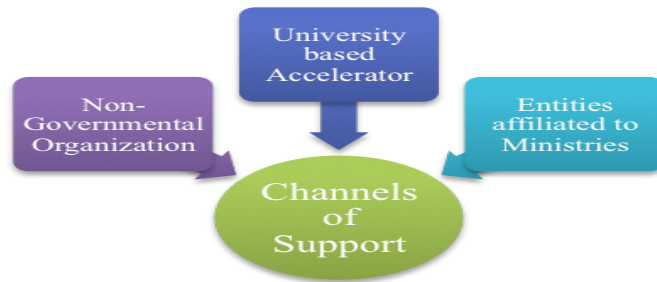


Figure (2) Channels of Support

The following table, figure (3), is a comparison showing the different accelerators and incubators operating in Egypt and the services offered by them.

| | "L" Incubator and Accelerator | "M" Accelerator | "N" Incubator and Accelerator | "O" Incubator |
|-----------------|---|--|---|---|
| Type | "L" is an Egyptian NGO and registered with the Ministry of Social Solidarity | "M" is a University based | "N" is affiliated to the Ministry of Investment | "O" is affiliated to the Ministry of Communication and Information Technology |
| Launched | Started as a pilot project in 2003 and became independent in 2007 | 2013 | 2011 | 2010 |
| Service offered | <ul style="list-style-type: none"> • Training programs to students (12:27 years) to prepare them for entrepreneurship or/ and job market • Cooperation with the private & public sectors • Space, seed fund for registered start-ups, training, mentorship • Demo Day | <ul style="list-style-type: none"> • Selects the innovative, new and interesting ideas for incubation • Promotes entrepreneurship and youth empowerment, which helps in filling the gap of the entrepreneurial ecosystem in Egypt • Cooperation with private sector • Space, seed fund, training, mentorship • Demo Day | <ul style="list-style-type: none"> • Supports the SMEs as they play a crucial role towards economic growth and job creation • Gives access to entrepreneurs and the SMEs to financial and non-financial services • Technical consultation, legal assistance, and business technicalities • Financial aids through "Bank referral program" and "The Center's Fund" • Public and Private cooperation | <ul style="list-style-type: none"> • Supports entrepreneurs in the (ICT) sector • Space, fund, mentorship, consultancy • Offers various programs for different stages to encourage entrepreneurship. • Cooperation with public sector |

Figure (3) Analysis of Different Types of Incubators/Accelerators

1.2. Data Analysis

To analyse what has been reached after the in-depth interviews with different stakeholders working in the entrepreneurship domain. Bus-pooling and Car-pooling transportation start-ups, Incubators and Accelerators and the Public Sector Entities, and a former consultant to the Minister of Transportation. It has been aligned with the conceptual framework, in which both the internal and the external factors directly affect the operations of the start-ups. Reflecting that on the studied start-ups, the below section is analyszing the reasons behind the collapse vs. survival of the studied local start-ups for passengers transportation (X,Y and A,B) that were studied by the researcher, see figure (4).

As for "X" the bus-pooling provider that stopped its operations after implementation and making revenue, the following are the reasons:

- The founders went out of money and the transportation domain needs huge fund.
- There was no staff working with the founders, so they were doing all the operations and logistics by themselves and having no time to focus on the big picture.

- The founders did not find a real mentor in the transportation domain, as they claimed.
- The founders needed a network to operate smoothly.

While what differentiates “Y” the other bus-pooling provider that continues its operations are the following:

- The founders hired full-time staff for operations and used periodic consultancy.
- The founders pivoted their model from Business to Consumer (B2C) to Business to Business (B2B) after reaching to the point that the B2C service needs many enhancements in the country’s regulations.
- The start-up has a high technology platform that differentiates it from another provider.
- They had the capital that helped the founders in the operations.
- The founders have different background in finance, marketing and technology.

Regarding “A” the car-pooling provider that collapsed, the following are the reasons:

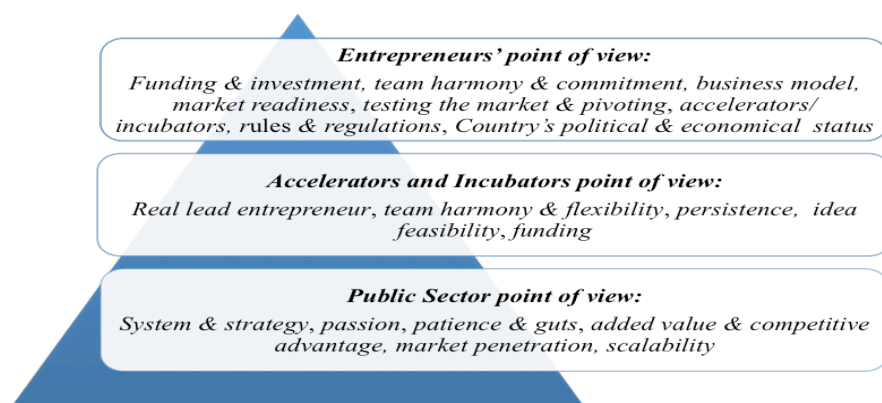
- The partners had a full-time job and were not focused on the start-up.
- The founders were not involved in any accelerator or incubator.
- The founders needed mentorship and network.

What differentiates “B” the car-pooling provider that sustains till now are the following:

- The founder left the full-time job and dedicated the whole time to work in the start-up.
- The founder hired staff for operations and development.
- The founder participated and won in many competitions.
- The founder incubated in a couple of incubators, and received a good amount of funding.
- The start-up has a high technology platform to operate the service through.
- The founder appeared in the media several times, besides the presence in the social media.
- There was one main founder of the start-up and a sibling has joined at the late stages, which led to a harmonized teamwork and dedication.

| | "X" Bus-Pooling Provider | "Y" Bus-Pooling Provider | "A" Car-Pooling Provider | "B" Car-Pooling Provider |
|---|---|---|--|--|
| Status | Stopped | Continued | Stopped | Continued |
| Provided service & launching date | Bus pooling, Nov.2013 | Bus pooling Nov.2013 | Car pooling, late 2013 | Car pooling, 2014 |
| Founders Educational Background and Work Experience | 3 Engineers (1 MBA holder): Work Experience: 2 Software Engineers and sales | 3 Partners: Engineering Finance Marketing | 3 Engineers: Project manager, CEO for start-ups, Developer | Software Engineer |
| Funding | Bootstrapping + seed fund from accelerator + a small angel investor | Bootstrapping + investments | Bootstrapping + investments | Bootstrapping + funds from incubators |
| Ecosystem | Accelerator | N/A | N/A | 2 Incubators |
| Internal Challenges | <ul style="list-style-type: none"> - No enough money - Couldn't hire staff - No focus on big picture founders - Having basic business knowledge - Managing buses | <ul style="list-style-type: none"> - Many duties on the staff, - Limited time to focus on big things like strategy and business development | <ul style="list-style-type: none"> - Introducing the idea to the market late & working on the concept too much - Poorly developed - Looking for investor too early - Busy Founders - Miscommunication | <ul style="list-style-type: none"> - There are some knowledge area still missing in the team |
| External Challenges | Investment, Educating the Market, Unclear Country's rules, Coaching, Country's instability, Consumer behavior | Country's instability, difficulty to attract talented staff | Not being involved in incubators or accelerators | Hiring Talents |
| Reasons behind the Collapse or Survival | Collapsed: they went out of money, no staff working with the founders, did not find a real mentor, and they needed a network. | Survived: had the capital, hired full-time staff for operations, used periodic consultancy, have a high technology platform, pivoted their model from B2C to B2B, and the founders have different background. | Collapsed: three partners had a full-time job, they were not involved in any accelerator or incubator, and they needed mentorship and network. | Survived: the founder left the full-time job, they hired staff, they were shown in the media, they have technology platform, they Participated and won in many competitions, incubated in a couple of incubators, and there is one main founder and a sibling partner. |

Figure (4) Analysis of Collapsed Vs. Survived Local Start-ups



Moreover, It has been noticed that every stakeholder has a set of opinions behind the collapse/closure/failure of any start-up that might differ from others and might not as shown in the below figure (5). Although all the factors play a role in the success or failure of the start-ups, but with different percentage depending on the kind of the start-up itself and what it offers.

Figure (5) Analysing different point of views behind the collapse/closure/failure of any start-up

Entrepreneurs' point of view:

When it comes to the entrepreneurs, the following are the most common reasons behind the success/failure of the start-ups as claimed by the start-ups' founders: *funding and investment constraints*; the *team harmony and commitment*, the *business model*, the *market readiness*, *testing the market and pivoting* accordingly, *joining accelerators and incubators*, county's rules and regulations, and in some cases the *country's political and economic status* have an impact on the start-ups' functions.

Accelerators and Incubators point of view:

Those who manage and work in the accelerators and incubators suggest the collapse of the start-ups because of the following factors: the absence of the *real lead entrepreneur*, the *team harmony and flexibility*, the *idea feasibility*, also *funding* is another challenge.

Public Sector point of view:

The government officials look at the start-ups from different scope, some see the reason behind the failure is the *lack of a strategy and a system*, others say the *passion* towards the start-ups is very essential, as well as *patience and guts* are important factors for start-ups' sustainability, besides the importance of the *added value and competitive advantage* that distinguish one company from another, in addition to *a significant market penetration and scalability*.

“The goal of a start-up is to figure out the right thing to build – the thing customers want and will pay for – as quickly as possible” (Ries, 2011)

It has been analysed that the start-ups that were able to survive are the ones who tested the market, revamped the idea, and pivoted the business model as quickly as possible to avoid the idea imitation till they reached the real market need. Those who succeeded probably changed the idea and the business model in the middle after testing the market. So it is about persistence, are they going to try and persist till they reach something that picks up or not? The bottom line is: if the entrepreneurs are not persistent enough, they will fall in the middle of their way; it is a mix of talent and hard work. What was obvious also, if the main founder is not working on a full-time basis on his/her start-up to enhance the operations, look at the big picture, work on the added value and develop the competitive advantage, the business will collapse.

Here are some ground rules and success factors reached on basis of the research:

- The start-ups that are doing well, started with an idea, tested the market quickly, and then if it does not work, they changed it, then changed it again, then completely revamped it and then continue pivoting till something matures that becomes interesting. When it becomes interesting to people, money comes, even if it comes slowly. In other words, If the idea is not working, start-ups should pivot quickly.
- Real entrepreneurs did not leave their ideas and disappear; they take care of it and lead its success.
- Lead entrepreneur assign the roles precisely and follow-up to assure that things are done flawlessly.
- Harmony between the partners is very important.
- Finding good mentors and coaches to the business is crucial for the start-ups' success.
- Businesses might fail because of the weak operations, although the market is getting large, this is the problem in Egypt. It is not the concept of having more projects; but developing a project to be implemented in a sustainable way to withstand for decades.
- Once there is a system, people working within will be good. The point is to erase the fear of change and convince people to change the system.

Besides, The researcher reached that if there would be a priority list for entrepreneurs to guide them to start their business and sustain, it would be as follows:

Concerning the **internal factors**:

- As for the **founders**; they have to be a real entrepreneurs who has the guts and persistence. It is also essential for entrepreneurs to know how to adapt with the market needs and be flexible enough to change their ideas accordingly. Full commitment and resilience to their start-ups are very crucial for the sustainability.
- Considering the **funding** issue, Entrepreneurs have to be very cautious in raising funds for their start-ups. They have to do it right, if they could not get the right amount to start the business they do not have to start it because they will fail if it is not managed correctly.

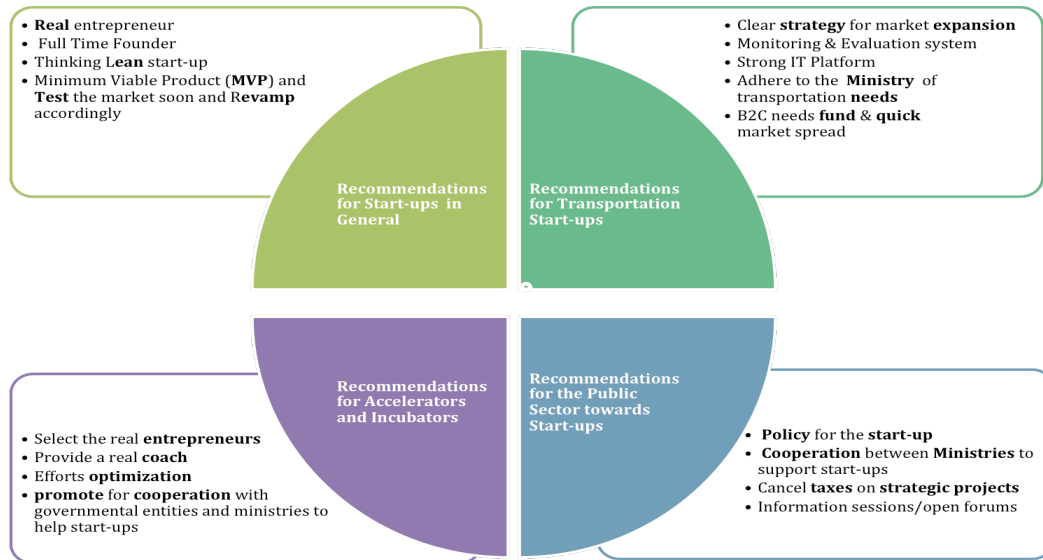
Regarding the **external factors**:

- Entrepreneurs have to search for **ecosystems** and interact with the different organizations to gain experience and needed knowledge, really it makes a difference.
- Being incubated in an **accelerator or incubator** and introduced to different institutions that support start-ups helped in the growth and expansion of the start-up.
- Entrepreneurs have to be careful towards the **business climate**; Before starting a business, entrepreneurs have to make sure that their product/service is needed in the market then decide whether it needs some modification or not, then they can register their company.
- Also, entrepreneurs have to know the **rules and regulations** of getting the support from different sector that support the domain of entrepreneurship. It has been analysed that each sector has its rules and regulations for supporting the entrepreneurs and start-ups, for instance, the accelerators and incubators that are affiliated to the public sector will support the start-ups

that solve a community problem, while others accelerators and incubators will support any innovative idea with specific criteria.

1.2.1. Conclusion and Recommendations

It has been noticed that there is no one-size-fits-all; the start-ups that survived are the ones that are most



adaptable to change, cope with the transformations and keep offering what people want. Perseverance as well as agility are core features in the success of any start-up.

Since this study explored the passenger transportation start-ups in Cairo, Egypt, and reviewed the role of the accelerators, incubators as well as the public sector in supporting the start-ups, there are some concluded recommendations (figure (6) summarizes some recommendations for the following stakeholders:

- Start-ups in general and transportation start-ups in particular.
- Accelerators/Incubators.
- Public sector towards start-ups in general and towards transportation start-ups particularly.

Figure (6) Recommendations

1.3. Recommendations for Start-ups in General

1. The leader should be a real entrepreneur, as per Carland et al. (2002) the main traits of the entrepreneur are rational decision maker, risk assumption, try on hand, provide management to the firm, risk taking and risk bearing. Also, leaders should engage the talented individuals in the start-up and take their input for the sake of the start-up development.
2. The main founder has to work on a full-time basis, which plays an important role for the success

3. of the start-up, especially in the primary stages. As it is like a baby and no one will give much care than the main founder would do.
4. The founders need to go to market quickly and test their assumptions, rather than waiting to finish a fully developed product first. Having a Minimum Viable Product (MVP) and testing the market sooner will help in reaching the right combination faster.
5. Start-ups' founders have to think lean start-up in the execution phase, they should not consume a considerable amount of time to have a product without being sure that there is a market need, the best option is to test the market fast and revamp accordingly. (Ries, 2011) defined the lean thinking, as the value of delivering benefit to the customer, anything else is waste.
6. The start-ups' business model should not be a long document, however, it should be very strong and to the point that attracts the ecosystems to support the business.

1.4. Recommendations for Transportation Start-ups in Particular

1. Since the objective of the passenger transportation start-ups is to solve community problems, which are traffic congestion and poor public transportation, those start-ups should have a clear strategy on how they would expand in the market and affect a larger market segment to attract the attention of the Ministry of Transportation and get its support.
2. Those who are offering business to consumer (B2C) service should be aware that this kind of business needs a large amount of funding, as it needs a quick market spread. If passengers request a transportation service, certainly they need it rapidly; otherwise they will not use the service. This leads to paying a bulk of money in both operations and marketing to reach good results.
3. Monitoring and Evaluation system for the drivers, the transportation domain needs to be managed in a way that protects the passenger from both the road hassles and drivers harassments. By monitoring and evaluation, the passenger would be safe if anything happened he/she could report the problem and the mistaken get punished.
4. Currently, to offer a transportation service used by the public, it is all about developing IT. In this era, investing in a strong IT platform will distinguish one service provider than another. It all boils down to the added value and the competitive advantage.
5. Transportation start-ups that deliver almost the same service have to coordinate with each other, they have to cover a big range and get a large number of users. The transportation start-ups should be implemented in a bigger scale to make a real difference and get the needed support from the public sector, as at the end it is a community service.
6. Since the Ministry of Transportation is a governmental entity, it is like any public authority that has its own priorities, any transportation start-up should fit to the ministry's needs to be supported, the more the scalability and applicability of the service, and how it fits to the ministry's needs, the more opportunity to get the support.

1.5. Recommendations for Accelerators and Incubators

As the accelerators and the incubators play an important role in the sustainability of the start-ups, because of the ecosystem environment they provide to the small companies, the following recommendations have to be taken into consideration:

1. The selection process should target the individual not the idea; as you are incubating the person not the idea. If there is a good team and a real entrepreneur they should be chosen, even if there is a mathematical problem in the idea, it will be solved, as it is one of the roles of the accelerators and incubators. That is why it is a key point to correctly select the real entrepreneurs and offer them coaching.
2. Both time and money should be invested in someone who has a big project that is expected to have a great effect and might sustain, so it will hire many people and has an impact on the economy and social dimensions, has a real added value and a know-how. The Support for the entrepreneurs needs to be very careful to avoid wasting time and resources. Efforts should be optimized because of the small capacity and lack of resources.
3. The expended money as well as the consumed effort in issues that are not important should be used in other channels that benefit the start-ups to breakthrough.
4. Provide a real coach to each entrepreneur to give support, in which every coach could have from four to five entrepreneurs to encourage them and put them on the right track. Entrepreneurs are in a real need for true mentors and coaches.
5. Everyone working in the ecosystem should pressure and promote for cooperation with governmental entities and ministries to help start-ups.

1.6. *Recommendations for the Public Sector towards Start-ups in General*

As most of the start-ups arose in Egypt are initiated to solve community problems, therefore, those companies should be encouraged and supported by the public sector to help them to sustain and continue offering their service. Below are some recommendations for the public sector to be taken into consideration:

1. The first thing that should be done is creating a by-law for the startup companies in Egypt, whether the start-up is local (100% Egyptian) or franchised start-up, a law that encourages people to start a new business and invest in it. The law should cover start-up's registration, closure, taxes, investment and funding, as well as international cooperation criteria has to be demonstrated in the law. The regulations have to be easy for start-ups to start their business, innovate, raise funds, and get in and out.
2. Facilitate the companies' registration, automate the system and avoid red tape.
3. There should be cooperation between all the Ministries to serve the small companies that have excellent ideas and solve public problems.
4. The Ministries and the governmental entities should release the needs and the problems they face to the ecosystem to help in filling the gap and solve the problem. If there is an entrepreneur who has a start-up that could help in solving the problem or even can design a specific tool to solve the problem, it would be great if the entrepreneur cooperate with the government to find a solution. If that happened, the government official have to provide mentors to help in getting a good outcome that perfectly fits their needs.
5. The public sector has to offer information sessions or open forums to the entrepreneurs to know the Ministries' rules, Channels for support, Mentorship and Network that could be provided, and the facilities that could be offered to them to start their own businesses.

6. Most probably the government will not move forward without the parliament, there should be a more of lobbying on important laws from the parliament side.
7. The accelerators and incubators that are affiliated to the ministries should coordinate with the government and the parliament to encourage the ministries to have memorandum of understating with each other to promote the concept of the entrepreneurship and enhance the business environment.
8. The Public sector intervention could help in solving crucial problems that hinder the entrepreneurs to implement their ideas in Egypt; such as: the incompetent human resources, the ineffective administrative system, and the inefficient rules and policies. If those problems are solved, anything will work smoothly.
9. Taxes must be cancelled on the strategic projects. If the project/the business is not strategic, the government should impose more taxes, but if it is strategic, the government should support the project, do not impose taxes and promote it.
10. To become sustainable, there should be administrative stability. If there is any administrative change, someone will leave the office and another will take his place, there should be a hand over and documentation to track the process.
11. Data sharing, transparency and confidentiality issues should be clearly reflected in the by-laws. There should be specific criteria for those issues, as long as they are not mentioned in the legislation openly, so as not to hinder the start-ups operations. There should be a non-disclosure agreements, data will not be used with a third party also it should be anonymous.

1.7. *Recommendations for the Public Sector towards Transportation Start-ups in Particular*

The role of the public sector is always needed for the progress and the development of the community services. Focusing on the transportation services in particular, the government has to encourage people and gives them incentive to leave their own cars and go for the public transport as an initiative to decrease the traffic jam. To achieve so, things should be prioritized, for instance the first step should be developing a good infrastructure, besides using the traffic signals appropriately, also the parking management should be handled perfectly, at the same time, the government has to encourage the private sector that offers solution in the transportation domain to decrease the congestion such as ride sharing in the form of car pooling, bus pooling and car-hailing services. As long as the transportation start-ups are providing a service to the public, the governmental entities should encourage them and facilitate their operation as they are solving a real community problem. The following are some suggested recommendations:

1. Support the start-ups by educating the market and publicizing the idea of bus pooling, car-pooling, and car-hailing to decrease the congestion and save the environment from the carbon emissions as well as cut the percentage of the benzene consumption, as at the end they are helping the government in providing services to the citizens.
2. The Ministry of Transportation has to create an electronic platform to include the different transport applications, there would be a criteria to join this platform such as company's registration, good car conditions and well trained drivers to guarantee a good service and a safe drive as it will be somehow under their responsibility.
3. The Ministry of Transportation should coordinate with other ministries (see below figure (7)) to provide the needed data for the start-ups that offers transportation services to facilitate their operations, such as:
 - Coordinate with the Ministry of **Interior**, to provide the start-ups that provide bus-pooling services a list of drivers, their contacts, bus models, violations, and the buses' quality, that would facilitate their job by selecting both good drivers and vehicles.

- Coordinate with the Ministry of **Petroleum**, as long as the government is subsidizing the benzene, it should promote the companies that provide car-pooling, car-hailing, and bus pooling services which encouraging people to leave their personal cars and share their ride with others. Since those companies are trying to decrease fuel consumption, therefore they should take an incentive in return, even if it is something symbolic.
- Coordinate with the Ministry of **Investment**, to facilitate the registration procedures for the start-ups that offer community service. And if the company decided to shutdown, the closure process should not be complicated.
- Coordinate with the Ministry of **Finance**, to reduce the imposed customs on buses/microbuses/minibuses that will decrease the transportation cost accordingly.
- Coordinate with the Ministry of **Environment**, to give the transportation start-ups incentives for their effort in decreasing the carbon dioxide (CO₂) emissions, by decreasing the number of cars in streets.
- Coordinate with the Ministry of **Information and Communication Technology** and the Ministry of **Planning**, to adopt a monitoring and administrative policy reform in support of public transport.

Figure (7) Cooperation between ministries

1.8. General Recommendations

Finally, the first step to solve a problem is to tackle its roots. To do so, there should be cooperation between different sectors, the private sector, the public sector as well as the social community; all these segments must play a role in developing the country and work together in the strategic projects. Applying this principle to start-ups, the following are some recommendations:

1. There should be forums to hear from the entrepreneurs the challenges they face and try to offer consultation and solution.
2. The Public Sector should promote the concept of the entrepreneurship and introduce it at the early stages in the schools.
3. The system has to be changed, but to do so, people should know that this needs effort; they should not get bored and fear the change to reach a better situation. The status of the entrepreneurship in Egypt is hard because of the inefficient process, if nothing changed, entrepreneurship will stand still. People have to challenge the process that needs more assertive



4. moves. "It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is most adaptable to change." Charles Darwin.
5. Before starting a new business, the entrepreneur should study well both the economic and political status of the country to avoid business failure.
6. It is also crucial that both the public and private sector to offer funding opportunities and involving the banking industry in funding the businesses that offer community service and solve a real problem.
7. Although there is no particular rule for start-ups, but article (28) in the Egyptian Constitution states that the government shall pay attention to SMEs in any field, this should be taken into consideration. The State should issue a specific rule to the start-ups to manage its operations from a primary stage, from the phase of having an idea till having a solid foundation that could compete in the market.
8. Since some units in the public sector believed in innovation and entrepreneurship and noticed that those two components play a significant role in the economic growth, thus several governmental entities initiated centers few years ago to incubate start-ups and Small and Medium Enterprises (SMEs) to help them build their companies in a professional way, so it is crucial to market and publicize these entities and fully utilize their capacities.

1.8.1. Research Limitations

Although the research has reached its aims, there were some unavoidable limitations. A constraint that is experienced pertains to data collection, as the research has been conducted in early 2016 during the taxi drivers' protests against a couple of car-hailing providers. These unexpected protests against two of the well known transportation service providers, hindered the possibility to interview one of both companies' staff because of the huge workload, as communicated. Fortunately, the two aforementioned companies are famous and well established which enabled the researcher to find a large amount of secondary data, as they were interviewed several times in the media. Concerning the role of public administration and public policy towards the start-ups, the data is too little in the literature, or even could not be found, and there is no sufficient information linked to it, so the researcher conducted semi-structured interviews with government officials to know how they interpret entrepreneurship.

1.9. Future Research Recommendations

It is recommended that the future research should shed more light on the following:

- How do the Public accelerators and incubators differ from the Private ones.
- Program Evaluation of the impact of the start-ups in the Country.

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**Entrepreneurship leads to reduction in migration: A case study of woman entrepreneur in
Palghar district of Maharashtra**

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Abstract: Entrepreneurship plays a vital role in economic development as key contributor for a new job growth. It is more important for the area wherein, Migration is prevalent due to unemployment. As migration has an adverse impact on socio economic status of the people. Dahanu Taluka of Palghar district of Maharashtra has been selected for the study. The study was based on the primary and secondary data, collected from different stakeholders and government publications for the year 2015 -16 with focused on qualitative and quantitative method of research. Participatory Rural Appraisal (PRA) tools have been used to collect qualitative data. Different statistical tool like exponential trend model and Coppocks Instability Index were used to analyze the data. Area and production of Sapota have shown significant growth over the period of time. A women entrepreneur leveraged the available resources and started a small scale sapota processing unit which not only helped farmers to reduce the post-harvest losses but also generate higher returns with minimum investment. The venture has a positive impact on their socio economic status and migration can be reduced.

Keywords: Agribusiness, Sapota processing, Entrepreneurial venture, Employment generation, Dahanu, Migration & livelihood, Women entrepreneur, Self help group

Introduction:

Entrepreneurs occupy a central focus in a market economy. Entrepreneurs serve as the catalyst in the economy's engine, triggering and stimulating all economic activity. The economic success of nations worldwide is the result of encouraging and rewarding the entrepreneurial instinct.

A society is prosperous critically determinant of the level of success, prosperity, growth and opportunity in any economy. The most vibrant societies in the world are the ones that have the most entrepreneurs, plus the economic and legal structure to encourage and motivate entrepreneurs to greater activities.

Sapota (*Manilkara achras*) also called sapodilla or chiku is delicious tropical fruit of India. India ranks first in sapota production. It is mainly grown in Karnataka, Gujarat, Maharashtra, Tamil Nadu, West Bengal and Andhra Pradesh. Sapota is an important commercial crop with 50 percent of nation's production at Dahanu and Palghar. It is a tribal belt and predominantly dependent on Sapota and rice cultivation. Dahanu Taluka has more than 7000 hectares of land under Sapota cultivation. A monthly turnover of around INR 3 – 4 crore results from sale of nearly 12, 500 tons of Sapota.

Due to lack of irrigation facilities, people become idle for 8 months after harvest of rice leading to migration at industrial hubs in Mumbai, (MIDC, SEEPZ)*and brick kilns in the vicinity. Migration for livelihoods has malicious impact on their family and their living standard, health, such as children dropping out from school and malnourished children. Sapota is a 365 day crop in a year and is highly perishable and due to mishandling of produce it is being wasted. The processing of Sapota will not only reduce the wastages but also provide additional source of income to women entrepreneurs and generate employment, as an entrepreneurial venture.

Research Design / Methodology /Approach:**Objective of Study:**

1. To study the growth and Instability of Sapota production in Maharashtra.
2. To study the economics of small scale Sapota processing unit
3. To study the scope and impact of Sapota processing venture on socio economic status of women entrepreneurs.

Methodology:

The study is predominantly based on primary and secondary research for the year 2015-16. Qualitative and Quantitative data from Palghar district of Maharashtra was selected for the study purposively as it is one of the important Sapota producing areas in Maharashtra.

The time series data on area production and productivity of Sapota was collected from various government publications and websites for the year 1999-2014.

Primary data of various stakeholders like Farmers, women entrepreneurs, traders, government official, Buyers, Proprietor of Sapota auction market along with other patrons in the ecosystem. As study was based on women entrepreneurs' data was collected from eminent women entrepreneur of the area who runs a small scale Sapota processing unit, i.e. "Amrut Madhuri' Women Mandal".

Qualitative and quantitative data was collected with the help of personal interview and different Participatory Rural Appraisal (PRA) tools like transit walk and focus group discussion. The below statistical tools have been used to analyze the data:

Statistical tools:

Estimation of growth rates

The growth rates in area, production and productivity of Sapota was studied by estimating compound growth rates.

The growth rate was estimated using exponential trend model.

$$Y = a \cdot b^t$$

Where,

| | | |
|---|---|----------------------------------|
| Y | = | Area / production / productivity |
| a | = | Intercept |
| b | = | Regression coefficient |
| t | = | Time variable |

From the estimated function, the compound growth rate was worked out by,

$$\text{CGR (r)} = [\text{Antilog} (\log b) - 1] \times 100$$

Where,

$$r = \text{Compound growth rate}$$

Degree of instability in area, production and productivity of Sapota

The degree of instability in area production and productivity of Sapota and were measured using coefficient of variation and coefficient of instability

$$\text{Coefficient of variation (C.V.)} = \frac{s}{\bar{X}} \times 100$$

Where,

$$s = \text{Standard deviation} = \sqrt{\frac{\sum (\bar{x} - x)^2}{n}}$$

\bar{x} = Arithmetic mean

Coppocks Instability Index

Coefficient of instability was worked out using Coppocks Instability Index.

$$V \log = \frac{\left(\sum \log \frac{X_{t+1}}{X_t} - m \right)}{N}$$

$$\text{The instability index} = [\text{Antilog} (V \log) - 1] \sqrt{100}$$

Where,

- X_t = Area / production productivity of crop in year t
 N = Number of years minus one
 M = Arithmetic mean of the differences between the log of X_t and X_{t-1} , X_{t-2} etc.
 $V \log$ = Log arithmetic variance of the series

Result & Discussion

Table 1: Compound growth rate (CGR) of area, production and productivity of Sapota

| Sr.No | Particular | CGR |
|-------|--------------|----------|
| 1. | Area | 57.36*** |
| 2. | Production | 14.03* |
| 3. | Productivity | -90.28 |

Note: ***, ** and * indicate 1, 5 and 10 per cent levels, respectively

Table 1 Revealed that the area and production of Sapota in Maharashtra shows significant growth rate in the study period. Highest growth rate was reported under area, 57.36 per cent and Production increase was 14.03 per cent. However, productivity shows not only non significant but negative growth rate of Sapota.

Table 2: Coefficient of variation in area, production and productivity of Sapota

| Sr. No. | Particular | Coefficient of variation (%) |
|---------|-----------------------|------------------------------|
| 1. | Area (00 ha) | 43.79 |
| 2. | Production (00 tones) | 32.82 |
| 3. | Productivity (kg/ha) | 42.85 |

Table-2 Depicts the coefficient of variation in area, production and productivity of Sapota in Maharashtra. It could be seen that significantly less variation was observed in Production i.e. 32.82 percent. It means that production of sapota over the period has been almost constant, whereas very high coefficient of variation was observed in area (43.79 per cent) and productivity (42.85 percent).

Table 3: Coppocks Instability Index of area, production and productivity of Sapota

| Sr. No. | Particular | Instability Index (%) |
|---------|--------------|-----------------------|
| 1. | Area | 36.16 |
| 2. | Production | 12.45 |
| 3. | Productivity | 70.40 |

The coefficient of variation measures the absolute variation while coefficient of instability which is also called as instability index measures the variation around the trend. It is a close approximation of the average year to year percentage variation adjusted for trend. Thus the variations around the trend are more pronounced than the absolute variation.

It could be seen from the Table-3 that the instability index of Sapota production was relatively less (12.45 per cent) compared to that of Productivity (70.40 per cent) and Area (36.16 per cent).

A Case of Amrut Madhuri' Women Mandal

1990 is the year of inception of Amrut Madhuri' Women Mandal. Mrs Sharda Patil has fond off catering; she has started this venture as a household experiment on 100 chikus. Over the period of time it was scaled up. She does processing based on market demand. She has developed 140+ recipes of Chiku also published a book and received an honorarium & awards for her Commendable work.

She has trained many women for her venture now they are self-employed through this skill set. She does processing for four months in a year & sells it throughout the year. It's a laborious job, generally require 5 days for drying and need to handle with care. No mechanization is possible in the processing. She only used mixer for grinding & a packing machine means investment cost was very low. Below is the economics of small scale processing unit.

Economics of small scale Sapota processing unit

Economics of small scale Sapota processing unit was calculated with the help of processing cost, Value addition and benefit cost ratio.

Table 4: Economics of the Small Scale Sapota processing unit

| <i>Sr No</i> | <i>Particulars</i> | <i>Rs . per Quintal</i> |
|--------------|-------------------------------|-------------------------|
| 1 | <i>Raw Material</i> | 1000 |
| 2 | <i>Processing Cost</i> | 1030 |
| 3 | <i>Total Processing Cost</i> | 2030 |
| 4 | <i>Cost of Final Produced</i> | 3500 |
| 5 | <i>Value Addition</i> | 1470 |
| 6 | <i>Break Even</i> | 0.426 |
| 7 | <i>BC Ratio</i> | 1:1.73 |

Table 4: Illustrated the economics of Small Scale Sapota processing unit. The Total Processing cost of one quintal Sapota was Rs.2030 and cost of Final Produce was Rs. 3500. Its means value addition per quintal was Rs. 1470. Benefit cost ratio was 1.73. It means on each rupee of investment women entrepreneur was getting Rs. 1.75 additional. It is a profitable venture.

Scope and Impact of Sapota processing venture on Socio economic status:

The research attempts to create a dual impact, firstly in the area of alternative value added products for Sapota which is currently sold and used for table purposes in its primary form and therefore will ensure greater income to producers. Secondly, as a feasible entrepreneurial option for Self help groups, farmers, women entrepreneur & unemployed youth to start an agribusiness unit in village aimed at employment and revenue generation. The processing cost of unit is low and it is economically viable. The training of the venture can be opted from Krishi Vigyan Kendra, Dahanu. The venture will have positive impact migration, incomes, livelihood and overall socio-cultural fabric of the community.

The following will be Socio economic impact on Women Entrepreneur:

- ***Family & Children:***

Women migrate due to unemployment from Dahanu Taluka for livelihoods. They work as laborer at brick klin and at nearby industrial hubs. Migration for livelihoods has malicious impact on their family & children and on their living standard, health, such as children dropping out from school and malnourished children. The venture will provide a stable source of income and as it is a home based unit. They will be able to spend more time with their children and dropout rate from school will reduce.

- ***Additional Source of Income & Seasonal Employment:***

Dahanu is main belt for Sapota and rice cultivation, people are idle for 8 months after harvest as of lack of irrigation; The venture can provide a seasonal employment opportunity and additional

source of income which may reduce migration during the lean period after the harvest of rice.

- ***Women Financial Independence & Social Recognition:***

The venture will provide financial independence to the women, as a result she can have a greater say in financial matters and will be able to play an integral role in decision making and wellbeing of the family. The venture will empower the women and give the women social status in society.

- ***Skill & Personality Enhancement:***

The venture will help woman to build their entrepreneurship skills, decision making, leadership, risk bearing ability etc. and improve their overall personality.

- ***Reduce Wastage of Sapota Fruit:***

At Dahanu, 200 tons of Sapota is produce daily from November to Feb per day, the produce drops to March to June 180 tons a day and it further drops to 80 tons from July to October a day. Due to higher production farmers are getting low rates for the produce ie Rs 2 to Rs 12 per kg and lot of produce is unutilized and gets wasted. Processing of Sapota increases value of the produce. It is efficiently processed to value added products such as Sapota chips, Sapota Powder, etc., this reduce wastage of the fruit. Sapota powder is produce in the season (four months) and further be used year round to make different value added products like, chiku shake, chiku barfi, chikku icecream etc.

Multiple such units will have a larger impact on the ecosystem. As we observe SHG model is dormant in Dahanu Taluka, this could be a viable business opportunity to earn.

Conclusion:

Dahanu is a prominent Sapota growing belt of Maharashtra. Sapota processing unit gives local livelihood opportunity contributing to reduce migration in Dahanu Taluka. Sapota unutilized harvest is used to create value added products and wastage can be reduced. Area and production of Sapota have shown significant growth over the study period. B: C ratio of Amrut Madhuri' Women Mandal is 1.73, is a profitable venture . Such a venture will provide income to women entrepreneurs, farmers and unemployed youths and year round employment opportunity to the community. This will have positive impact on their Socio-economic status and business ecosystem at Dahanu.

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***Dissecting the “Invisible Hand”: Reconceptualizing Firm Theory.
A Practical Innovation Framework for Social Entrepreneurs.***

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Abstract—A theoretical approach is taken, dissecting Adam Smith’s “Invisible Hand,” and relating innovation to Schumpeter’s “Creative destruction.” Reviewing firm theory and practice, together with the intersection of innovation modelling frameworks and new venture creation tools used in the process of innovation will guide what in practice creates and determines the new firm and the innovation execution strategy. Business Model Canvas (BMC) will be challenged as a model framework widely used by social entrepreneurs and currently accepted as a base model for most innovations.

The significance of this paper will:

- A. Challenge long held assumptions that it is only the most profitable innovations that ought to be developed and society benefits from. It is posited this logic may not always hold true.
- B. For all in society to truly benefit from innovation a wider body of stakeholders needs to be actively involved and engaged in the innovation and firm creation process.
- C. Improve the understanding between innovation practice and firm theory.

In conclusion; a practical framework called, “Social Innovation Mosaic, (SIM)” is introduced as an alternative and improved model to guide social innovation. The offered model overcomes the identified weaknesses of the dominant framework of Business Model Canvas. Social entrepreneurs need to be more aware of the limitations of BMC when applying it to social innovation.

Keywords— Firm Theory, Innovation, Invisible Hand, Invisible Heart, Social Entrepreneurs, Social Innovation.

Invisible Heart Thesis

For innovation to truly benefit society, it is not so much the “Invisible Hand,” that provides, but rather the morality of the “Invisible heart,” that guides.

Adam Smith (1759) prophesied the divine intervention of the “Invisible Hand,” implying the free will of individuals in unison with a free market would create synergy, greater than the sum of the parts. Negative unintended consequences would be tempered by the moral sentiments of the “Invisible Hand,” distributing benefits across society for all to enjoy. This paper however argues the case, the “Invisible Hand,” is not as perfect as Adam Smith believed in theory it should be. If it were so perfect, social problems and negative unintended consequences of innovation ought not to exist and or only exist superficially.

The question that needs to be asked is how can all stakeholders in society enjoy the fruits of innovations and not simply the lucky few who grow ever fatter when holding the keys to the Garden of Eden, by their direct ownership or management of the seeds, fruit tree and orchard?

Disruptive Innovation

Disruption is now everywhere, as old and outdated business models are routinely and regularly supplanted by new innovations in the onwards, upwards and never ending quest to crystallize the value of new innovations. There are many causes cited by (Wooldridge, 2015), in “The Great Disruption,” ranging from the internet, robotics, new technologies, emerging

markets and changes to business planning and strategy and many more. What is certain is there is a fundamental shift in the economy as tectonic plates move around the globe. Tremors are felt, with earthquakes shaking all to the core. Volcanoes erupt spewing their lava causing havoc in their path and tsunamis leave devastation in their wake. It is at these very inflection points of time, new theory and practice evolves simultaneously from the ashes of destruction and devastation caused by the disruptive innovation. Adam Smith was an outsider to the dominance of mercantilism. As was then, the time was ripe to carve out new theory and practice as (Smith, 1759), did with his metaphor of the “Invisible hand.” The time has come again.

In practice social entrepreneurs and societies stakeholders are being guided by a new sense of moral obligation. They fill the void between Adam Smith’s (1759), “Invisible hand” theory and the stark reality that divine intervention, nor government intermediaries, nor strict laws and regulations are enough to ensure everyone in society benefits from innovations.

Guiding Hand of Innovation

What guides the process of modern innovation? Extensive application of innovation tools, methods and practices form business modelling technique. Business Model Canvas (BMC) and a number of other frameworks and variants derived using BMC as a base model do not question Alex Osterwalder’s (2004) assumed firm theory logic articulated in his PhD thesis. Value proposition is central to BMC framework. Assimilating and articulating BMC, Osterwalder underpinned his logic using (Coase, 1937) theory of the firm. For different theories of the firm, the constructional definition of what is meant by value (who, what, how and why) can have entirely different meaning. There is no exploration by Osterwalder of the existence of different forms and functions of a firm in his PhD thesis beyond transactional economic firms. Nor did Osterwalder in his work consider “The problem of social costs,” articulated by (Coase, 1960). That is BMC only considers

the transactional efficiency of earned financial income and expenses creating value for consumers in the form of products and services and profit for firms without considering the potential social costs to others of innovation. Therefore the persona of the firm, capturing the value of an innovation will inherently be private profit maximization as a given when using BMC or similar variants. Aims and objectives of firms at the very embryonic startup creation phase of innovation as assumed to be purely driven by profit maximization is challenged in this paper. Social innovators may have other motivations other than profit and therefore need to be aware of BMC limitations, in so much as firm logic is highly unlikely to follow that of BMC. This paper does not specifically critique other innovation modelling frameworks and variants of BMC, but innovators need to be aware of selecting an appropriate model that aligns with their desired firm logic. Reconceptualising firm theory it is argued is a prerequisite for morality to assume centre stage, guiding the innovation process for the benefit of all and therefore account for social costs. It is argued social costs of innovation need to be considered and should assume centre stage. The benefits and value accruing from innovation can only be enjoyed by the many rather than the few, if stakeholders acting as individuals and collectively as society awakened a moral compass that this paper coins “Invisible heart.”

It would be rather remiss without at least an acknowledgment of work by (Hayek, 1973) on spontaneous order. Further work is needed beyond the realm of this paper. Suffice it to say for the future determination of business models in the innovation process it is essential to empirically validate their application. There has been little empirical research despite such wide spread use of business models. Although it has to be acknowledged without some form of road map and therefore plan securing buy-in from stakeholders might be an uphill battle. While business modelling tools

might be helpful as a guide the question needs to be raised are innovators putting more faith than they should in these models?

Innovation : Value Creation

Value creation is central to business practice and it goes without saying the concept of monetization and extracting profit from an innovation has become a monetary phenomena. What exactly is the abstraction of value from innovation and where does it come from? (Schumpeter, 1928) posited, “Value creation results from actions that entail the novel combination and exchange of resources, by which resources are diverted from known applications to be deployed in new contexts.” Innovation discourse typically refers to it as the implementation of a new or significantly improved good or service, or process, or new method. According to how (European Commission Eurostat, 2016) defines innovation, it is a construct of the firm. They state, “The minimum requirement for an innovation is that the product, process, marketing method or organisational method must be new (or significantly improved) to the firm. This includes products, processes and methods that firms are the first to develop and those that have been adopted from other firms or organisations.”

Implied within the innovation process is the assumption competitive and efficient markets ultimately select innovations that create value for end consumers and the firm’s stakeholders. Value creation for end consumers is predominately in the form of novel, cheaper, more efficient or robust products or services. Those innovations not deemed as worthy for respect by consumers are quickly discarded, becoming museum artefacts of a bygone era, lost relicts stored in home attics or unlovingly discarded as landfill. Sony “Walkman,” eventually supplanted by Apple’s “iPhone,” creative destruction in full glory. This is not to say all innovations are eventually destined for the scrap heap, as vinyl records are making a comeback and books in physical form after an initial decline from e-books are back in vogue. Time and time again an innovation that once was of high

value to consumers and those innovative firms supplying such products and services eventually succumb to terminal decline, as new market entrants offer products or services superseding incumbent firms. Value in all its forms is destroyed in the process (Schumpeter, 1943) defined as creative destruction. Combined with a firm's need to continually achieve higher profits and therefore remove external burdensome costs, a complex set of social and environmental externalities become apparent. These exogenous costs range from redundant jobs, skills mismatch and unemployment, to environmental damage, pollution and waste to name but a few. Attempts to regulate and place the burden back on firms can be easily thwarted by them. In the creative destruction process the final demise of a firm with limited liability into bankruptcy and liquidation simply and conveniently absolves a firm from all future liability. The State and therefore society at large shoulders the future costs and clean up operation of externalities left behind by the demised firm. Longer term implications of firm bankruptcy in the process of creative destruction is that, more often than not the State in a variety of ways supported early stage value creation of a firm's innovation. Grants, tax breaks and various forms of incentives are given by the State to encourage innovation at the early stages of value creation. Mariana Mazzucato (2013) cites many examples of how it is the "Entrepreneurial State," and not private investors who provide early stage seed funding. She identifies Google among many other firms who have significantly benefitted from State support of innovation, but rarely is the State given any recognition as being the ultimate risk taker. In essence profits of innovation are privatized with private stakeholders enjoying the upside and losses are socialized with the State and society picking up the tab for the costs. These social costs may take the form of pollution, environmental damage, unemployment, inequality, higher taxes, social welfare, redundant products and services and so forth. To be blinkered and therefore

blinded by the value creation side of innovation as (Smith, 1759) assumed, the “Invisible hand,” would be morally obliged to giveth and never taketh away is to cross a street without looking left and right. The destruction of value has inevitable negative consequences and is extremely burdensome to society. If creative destruction is accepted and underpins the process of innovation, thereby value created by an innovation is not only eventually destroyed in the long run, but more importantly new innovations create destructive forces of external social costs, as the “Invisible hand” can and does taketh away. This paper argues that real value for society from innovation must be viewed from both ends of the lens, that is value that is created, but also value that is destroyed in the process (Schumpeter, 1943) describes as creative destruction. Considering and mitigating the social consequences and therefore costs of innovation should be part and parcel of the process innovation. It is not enough for Adam Smith to simply assume innovations that achieve the greatest profit and therefore value for the merchant trader at the cheapest and most efficient cost for the consumer maximizes value for all in society. Nor is it satisfactory to simply assume a judge in a court of law or government would adequately compensate those who may loose from innovation, as bargaining power in practice is unlikely to be equal. Taxi App (Uber.com, 2016) is a case in point, corralling large amounts of capital to fund global legal cases against those who may stand to loose from their innovative technology that disrupts the taxi industry.

Defining Value Creation

To clarify what is meant by the value creation of innovation and how this paper relates what the “Invisible hand,” in the context of modern innovation refers to : a new definition is offered. Innovation’s value creation : the process of improvement whereby perceived aggregate net benefits of enhanced economic, environmental and social well being, (The Triple Bottom Line, articulated by (Elkington, 1997) of people, planet and profit) is captured and shared as equitably as possible

amongst all those in society who may lay a claim to a stake. For society as a whole to derive value from innovation it is a prerequisite for all in the value chain and not simply those with a direct financial interest to benefit. Perception of an innovation's net benefit can be vastly different and depends on where each stakeholder sits on the continuum. The concept of "Shared value," as articulated by (Porter and Kramer, 2011) of creating community and company cycles of prosperity with enduring profits is their attempt to overcome the value distribution mismatch. Although it should be noted, their proposition still assumes and refers to financial profit as the overarching goal in sharing value.

It is value creation of innovation, captured by merchant traders and assumed by Adam Smith which would be distributed for the benefit of all in society, that this paper argues underpins the abstraction of the, "Invisible hand." Central to this paper's argument and the concluding framework is for society to truly capture and share in the benefits of innovation equitably and as fairly as possible: It is the morals of the "Invisible heart," that guides. Moving beyond the lens of value creation being exclusively a monetary construct of profit, only then can society reap the rewards of innovation. The "Invisible hand," only grabs in an unscrupulous handshake, as much as one's self interest can fit in the size of the palm.

While individuals may have a novel invention or idea, it is the union of forces of firm creation that typically brings about a future innovation. It is ultimately the firm possibly led by the idea creator, but not the individual themselves that creates and destroys future value. This distinction is important in terms of whom and what may guide a firm's decisions. In both contextualizing and defining what innovation is and how it occurs, the legal entity of each firm in the market place is integral and underpins the functioning of modern society. The legal, political and socioeconomic

constructs of how and why social enterprises are formed, constructed and evolve over time needs further research. Recontextualizing firm theory is needed to account for social entrepreneurs as a growing new breed of innovators creating firms referred to as social enterprises. The firm construct of social enterprise challenges neoclassical economic theory of the firm, as they are not purely motivated by cost efficiencies and profit, but seek to find solutions and solve the increasing number of social problems in modern society. This paper argues these social problems are inherently caused by the very nature of how innovation occurs in profit maximizing firms. In essence it is argued all innovators should consider themselves, “Social innovators,” if in the innovation process due consideration is given to the benefits as well as the costs of innovation to all in society with a sharing of the up and downside of innovation. The concluding framework, “Social innovation mosaic (Figure 1. of Appendix 1.),” articulates a new model to guide the social entrepreneur through the innovation process moving the theory into practice.

Dissecting the Invisible Hand

The rich . . . divide with the poor the produce of all their improvements. They are led by an invisible hand to make nearly the same distribution of the necessities of life, which would have been made, had the earth been divided into equal portions among all its inhabitants, and thus without intending it, without knowing it, advance the interest of the society, and afford means to the multiplication of the species. (Smith, 1759, 184-185)

In the context of innovation and division of societies fruits of labour it has to be said and acknowledged, the form and function of society, Adam Smith wrote so eloquently about was not predicated on the illusionary dream of enriching thy self, but more to the point enriching thy neighbour. In so following the commandments of scripture, thy self would be rewarded, but certainly not at the expense of fellow citizens. Society would be guided by a sense of moral virtue, Luke 6:31 (Holy Bible, 2011), “Do unto others as you would have them do unto you.” Individuals

as beings and society as a unifying host of loaves, glorifying looming innovations would equally enjoy the fruits, breads and wines of greener pastures, if thy neighbour were not thy beggar. A moral compass: acting as a roadmap, a guide to the future galaxy, pointing up high, towards the utopian heavens, as the brightest shining star twinkles in the night sky would redeem society from any possible wayward path of sin and evil. Moral bounds of individual character would deliver salvation to all and free society from damnation. Society as a whole would therefore share amongst each other the bounty that innovation delivers, rather than beggar thy neighbour. (Smith, 1759) placed enormous faith in his “Theory of Moral Sentiments.” A tragedy of the commons (Harding 1968) would be an unthinkable and unspeakable act of the devil, as society would simply wither, rotting and dying at Rodin’s Gates of Hell, inspired by poetic justice in Dante’s Inferno.

Adam Smith (1759) argued the divine intervention of the “Invisible hand,” would temper the temptation of powerful forces of evil. Implying the free will of individuals in unison with a free market would create synergy, greater than the sum of the parts, distributing benefits across society for all to enjoy. In simplistic terms the “Invisible hand,” would temper unintended consequences of human’s innate greed and wickedness, believing society would be far better off, if innovation were to flourish at the hands of free markets and individual free will. Moral bounds of society would prevail as Smith (1759) assumed it would in his “Theory of Moral Sentiments.” While “Yes of course,” we can all list many examples of new ideas, new processes, new technologies and new gadgets that have greatly benefitted society, since Adam Smith’s words of wisdom. Society as a whole is no doubt eternally grateful innovations have flourished, forming part of the social fabric of society, rather than remain lost in a scrapbook of forward thinking, creative and imaginative minds. But large swaths of society have been left behind.

Is it just possible modernity comprised now almost exclusively of profit maximizing, rent seeking legal entities, raising and borrowing capital on an unending sea of free floating money, courtesy of Central Banks and the investment bankers, hedge funds and private equity who dispense the elixirs of moneyed capital, do not act in the vested interests of society? Adam Smith (1759) posited otherwise allowing his conscious mind and enduring faith in the landlords and merchants of the day not to be so easily swayed by temptation and evil, but guided by existential forces of the, “Invisible hand.” Perhaps back in the day when traders and merchants with a handshake accepted at face value the unspoken gentlemanly custom, “My word is my bond,” traders would invariable and without question or hesitation, honour thy word. In game theory neither party would attempt to deceive the other, as doing so may have unspeakable physical consequences. However society and legal protection of thy self from physical harm or attack, now renders such gestures or utterances of admirable honour as without substance. A game of deception is now played with regularity between poker players. Unwitting card players draw from the unscrupulous merchant traders stacked deck at their own peril. Proving and laying stake to a claim of property rights is now the name of the game. To even begin to sit at the poker table and place a bet requires greater complexity of laws and regulations. The legal contracts binding such agreements to avoid dispute become so onerous few seldom actually read or invariably understand the contracts they may enter and sign.

Nature of the Innovative Firm

To understand the need to reconceptualise firm theory and why there is a definitive shift towards social enterprise, dissecting the “Invisible hand,” contextualizes the evolution of the modern firm. Is the nature of the firm as simple as (Coase, 1937) assimilated or are there reasons for a firm to develop and exist well beyond price, cost and transactional mechanisms? The outcome of profit as

the overarching goal in neoclassical economic theory is baked in the cake, but what if the firm were underpinned by other goals, motivations and measures other than profit? In the context of social enterprise, does the construct of a firm itself organize disparate individuals into a collective association with a common mission other than profit? The concluding “Social innovation mosaic,” (Figure 1. of Appendix 1.) as a new framework for social innovation is built on the notion the very nature of the firm is guided not by price and profit, but by collective purposeful impact guided by the “Invisible heart.”

Smith had nothing to say about what (Schumpeter, 1943) would describe almost 200 years later as creative destruction, but it has to be said even to this day the value creation and destruction process takes on its own mythical being.

So what currently guides firms? In the UK, Limited Liability Act (Act of Parliament, 1855) - similar versions of the legislation have been enacted in most other countries across the globe, creates the framework form and function for the majority of legal entities colloquially referred to as firms. The firm has become the merchant trader’s paradise with freedoms bestowed well above the common citizen. The granting of limited liability creates a toxic moral hazard risk and a wildebeest not so easily tamed. The firm itself is beyond reproach taking on a life form of its own. Most firms command respect once listed on one of the global stock exchanges - a sign of their coming of age from humble begins as a garage upstart. New firm venture creation process begins by bootstrapping in the bedroom or garage aided with some financial assistance from friends, family and fools. Motivations run high, but success is not guaranteed. Is it just the illusionary pot of gold at the end of the rainbow that keeps nascent entrepreneurs motivated? Or is the intrinsic value of giving birth to a new life form and watching the phases from crawling to walking and talking with a sense of

self, purpose and independent mind as the innovation and firm grows at each milestone more rewarding and satisfying? Is price and profit the ultimate goal for the entrepreneur or is it more the intangible invisibles of solving a problem, being a pioneer or simply enjoy experiences with others who may share in the similar dream and vision? Not that this paper has time to answer such questions, but exploring and reconceptualizing the firm requires greater understanding of entrepreneurial motivations in determining the type of future firm that may evolve. For social enterprise to have any chance of sitting proudly beside profit maximizing firms, clearly articulating a new theoretical framework that does not simply borrow and reframe their firm form and function is essential. The accompanying “Social Innovation Mosaic,” (Figure 1. of Appendix 1.) is offered as a new and improved practical framework for social entrepreneurs to aid in the social innovation process.

Lean startup (Ries, 2011), business models, value proposition, iteration, pivot and minimum viable product (MVP) are all the catch cry of the startup enterprise. As a prepubescent teenager, early stage seed funding is sought from venture capital and investment bank pariahs, each drawing their pound of flesh. Early adulthood may finally arrive as a listed corporate firm. Regularly grovelling and pleading a case for investment in front of those holding and guarding the keys to the vault of nirvana, as these merchants of Venice hold tightly at the wrist bright red briefcases. Each wagging case filled with wedges of shiny newly printed bills. Tempting and tantalizing the eyes of the beggar with insincere offers of investment has become part and parcel of new innovation mantra. The question needs also to be asked, should society put such faith in such a small and elite group of merchant financiers who can’t possibly all be fortune-tellers. They act as high priests determining the fate of the mortal at each sermon. Their status is now so levitated they seemingly assume without question they are doing, “Gods work.” Even to the point of having such arrogance and the audacity to publicly utter such blasphemy, as in the course of (Arlidge, 2009) interview with

Goldman Sachs CEO. These investment bankers now seal the fate of much of the world's innovations, by either switching on the heat for an innovation to be warmed in the oven, in return for a handsome slice of the future backed pie, or as is so often the case, cooled in the freezer never to be thawed again. Once investment finance is secured, the future fate of a firm and its' innovation rests more with the financial wizards. As quick as an entrepreneur could say "Abracadabra!" the investment money could vanish, never to be seen again. Many an entrepreneur has been left stranded high and dry as a tidal wave of "Speculative hot money," magically disappears at the whim of the financier. This hot money does a dance around the latest innovation, but jumps from firm to firm as quickly as a hot potato passes from hand to hand. The times when finance is needed the most is always when there is the dreaded drought. Is the market as free as Adam Smith, so wished it to be, when an essential element of new innovation - handing out the, "Dosh," is so tightly controlled by the carpet bag money changers from Venice? A beggar can quickly see money is not neutral as economic theory would wish it to be. The "Invisible Hand" in the financialized global capitalist system is more guided by the "Green fingered moneyed hand!" who's morals have been dissected then discarded from the head, heart, limb and each gangrenous finger.

If the evolutionary theory of nurture is accepted as how the human mind is shaped, formed and developed from numerous daily interactions and so it is argued the behaviour of the firm is shaped from immaculate conception, birth and early development via similar interactions. It should be acknowledged, nature itself plays its own part in assigning DNA in terms of firm structure at birth. Genetic makeup plays a part in shaping the resulting firm behaviour and characteristics. It is posited if those leading the innovation and firm have a natural tendency towards dominance with little consideration for those around who may hold little power and have contrary views, the

resulting firm is likely to exhibit personality traits more akin to the competitive animal spirits of most major corporations. These kings of the jungle often beat their chest, crowning their glory with a name hoisted high atop monuments of perceived pinnacles of success. Intense competition has been a hallmark of the modern firm and economy. Competition is now last year's fashion as collaboration is now hip-hop and cool. Nurturing and collaborating, rather than competing at each step of the firm's development, it is argued may produce a very different culture, ethics and set of values underpinning the very nature of the firm. Reconceptualizing the firm to account for the changes occurring in firm practice and the rise in social enterprise is beginning to be researched more widely by PhD candidates. (Ohlsson – Corboz, 2013), for example in recent work investigated the nascent field of social entrepreneurship and the firms evolving as social enterprises contributing to new scholarly understanding. The theory of the firm and the existence of social enterprise is not yet well developed. Works by a number of authors including Dees, Nicholls, Drayton and others offers some understanding of what the label of social enterprise means. However the existence of a social enterprise firm underpinned by social value rather than profit is well outside the realm of neoclassical economic theory. It is anticipated this paper may well add to the understanding and explanation of why social enterprises exist and will continue to grow in relevance to the future global economy. At the very least the attached "Social Innovation Mosaic," (Figure 1. of Appendix 1) is a radical departure to the models used thus far by social entrepreneurs when creating a social innovation. It is to be expected this new model will enable the flourishing of social enterprise underpinned, not by profit but by purposeful impact and guided by the "Invisible heart."

Neoclassical economics assumes a competitive market and therefore neither party in a transaction should have the upper hand, but this seems more like fantasy land. Surely in any real model of how

the economy and real firms may operate and behave in practice, consideration needs to be given to power structures and power interrelationships? This is particularly true when considering an innovation and who may have economic power to quickly quash an idea, but equally those who may champion. These power relations extend well beyond competitors in a market place. For example certain funders will only fund specific types of legal entities, therefore exerting power over the types of innovations funded. Legal constraints don't feature at all in BMC and yet can have profound implications on execution strategy. An innovation might be grounded at the start simply due to the fact there is a mismatch between the firm's legal status and a funders ability to dispense funds. The concluding model framework considers these legal and power relationships.

It is too early to say definitively, but it is theorized that altering the genetic make up of the firm and exposing the firm to different stimuli will result in firms of tomorrow acting very differently to the firms of today. In order to understand changes already occurring as new firms assigning themselves the DNA of social enterprise are born and led by social entrepreneurs, reconceptualizing firm theory is needed to account for these new firms that are not driven exclusively by profit maximization, but overarching their mission is social purpose. These new firms and their lead social entrepreneurs may have very different motivations than profit and therefore the very nature of their existence needs further exploration. A new blueprint that does not automatically assume profit maximization is also needed to guide these new firms. The attached "Social Innovation Mosaic," (Figure 1. of Appendix 1.) offers such a blueprint. A question that needs to be asked; would innovations, startups and the resulting firm follow different trajectories and have different values if they were not so subservient to the venture capitalists who seemingly have the upper hand when it comes to deciding the fate of innovations? If society typically via the State and more

recently via the novelty of crowd funding actively supports the very early stage seed funding of innovations, how should society as a whole be rewarded for the risk contribution of funding innovation and share in both triumph, but also failure? The concluding blueprint (Figure 1. of Appendix 1.) offers the practitioner a model framework to guide such considerations.

Governance via boards and managers overseeing the firm can act and most frequently do act within the realm of the firm, rather than the interests of society. Beating each quarterly and yearly profit target becomes the object of the game for the firm, rather than any real desire to improve the lives of society. “The market,” unanimously cheers! bidding up the firm’s stock price at points of positive announcement, as the firm achieves its goal. A get rich quick for managers, stockbrokers, bankers, accountants, lawyers and those owning the stock, as the achievement of short term goals are immediately and handsomely rewarded. Longer term goals and investing for future prosperity for the greater good of the firm, consumers, suppliers, government agencies and the wider society surrounding the firm, becomes totally irrelevant in the daily pursuit of profit targets. The firm gives little credence to the wider social aspect of how the firm may have achieved the profit goal. In achieving and beating profit expectations little consideration is given to contextual social issues of paying a living wage, wage differentials between the lowest staff and highest paid managers, paying appropriate taxes, and caring for the environment just to name but a few. It is as if the firm is aloof, divorced and therefore oblivious to the reality that it is after all those paying customers who underpin the firm, conjoined and inextricably dependant on each other for the firm’s own profit and longer term survival. That is until the day an innovator may offer a better product or service and deal to the consumer. Recent innovators for example (Toms.com, 2016) are finding that by appealing to consumer’s social and or environmental conscious with an offer that aligns is not just good business, but a winning formula.

In fairness and out of pity, Corporate Social Responsibility (CSR) has become a hallmark, an exemplar exonerating any unintended negative consequences of a firm's behaviour. But CSR has its critics and is viewed by them as more a firm's public relations noise and marketing exercise, rather than genuine compassion for the social imbalances now so prevalent and pervasive throughout society.

Imbalance of firm power is personified by the ability of firms to regularly lobby government and achieve economic outcomes favourable to the firm. At times they often do run counter to the wishes of the populous. Smith is likely to be mortified if he were to witness the assumed power firm's have now grabbed. One could argue there is now complete moral servitude of society to the firm. Not only is society already subservient to the firm, but when things go wrong, as they frequently do with a range of disasters, (BP, BHP, Enron, Equitable Life are just a few of many such examples) a firm is now too big to fail. The costs and losses of bailing the firm or cleaning up after an environmental, financial or social catastrophe are born by society at large and not the firm. It has to be said at times when a firm feels overly generous and acknowledges an obligation to clean up, many years typically pass before due compensation is forthcoming. It was in hindsight rather naive of Smith to have simply assumed those within a position of power and influence would always make decisions in the interests of all. It is after all, the power structure and who ultimately makes decisions of the firm, the wheels of commerce do turn.

Many of today's large firms employ battalions of foot soldiers only all too willing to be sacrificed for the greater good of the firm. Burnout is common and life for many becomes the firm. There is little place for life including family outside of the firm. Women, the disadvantaged and minorities

are singled out as being potential burdens on the firm, rather than adding a dimension of sense and sensibility. Collaboration does not enter the firm's vernacular, as the words "Intense competition," are indelibly etched on lips. They have armies ready for combat with a will to win the next war on the back of bloated balanced sheets, many multiples the size of most country's war chest. Typically leveraged with exotic and esoteric financial instruments, the modern firm, their equity shareholders and overly paid managers and political cronies and elites hide profits in the off-shore vaulted caves of the tax haven. (Panamapapers.icij.org, 2016) is a topical example of the systemic scale of tax avoidance. What good to society is a buried treasure chest filled to the brim with glistening possessions of gold coins, that have been seized by pirates purporting to be captains of industry proclaiming benefits and wealth to all, when there is no food for the belly or cloth for the back, nor shelter at the inn for mortal peasants?

The modern firm may combust without warning at the touch of a button, when a disruptive innovator penetrates and raids their tightly held market share. Nascent nimble and lean startup innovators led by a visionary entrepreneur begin nibbling at the heels of dominant firms. A David versus Goliath battle ensues, innovators disrupting the status quo, challenging the old and championing the new. Out of respect the creative destruction death knell finally nails shut the lid of the coffin of firms that once were, at a silent solemn vigil never to rise again.

The inordinate financial superpower of the modern firm attempts to control innovations. They do this typically via mergers and acquisitions. Buying the rights to future revenue streams and acquiring intellectual property asset rights extends and maintains for a while longer the status quo of firm prosperity. Ensuring the listed firm's equity stock price remains inflated and lofty for a period. Not only does the modern firm attempt to capture innovation, but they act within the interests of what is best for the firm and the self interested managers, equity shareholders and

financiers. Tactics such as predatory pricing and legal challenge to infringement of patents are used to ward off competitors. As is so often the case, an entrepreneur and their nascent firm either sells their soul to the devil or is quickly driven out of business by incumbent goliaths. Only a handful of innovators have the available resources to progress an idea through the stages of innovation to eventual launch, but these disruptors sow the seeds for the eventual downfall of the once giant corporate titans of industry. Hubris marks the downfall as the illusion of grandeur turns to despair. Creative destruction begins with value destroyed, as profits begin to dwindle, stock prices slump and a once loyal oasis of consumers becomes a shimmering mirage. The firm's detonation unleashes a nuclear mushroom cloud, raining down a toxic cocktail of waste, decimating the land for future generations. Boarded up buildings, weeds and rust personify the terminal decay that sets in when a firm and the value that underpinned it is destroyed.

Changing Times

The apocalyptic climax in allowing unfettered markets and individual self interest to dominate society is summed up well by (Sandel, 2012) in "What money can't buy : Moral limits to markets." The free market and individual self interest has morally bankrupted society. Anything and everything is now up for sale with a financial price tag attached. Society now openly accepts the parading in the ultimate ceremonial "For sale," procession of life's pleasures, including friendship, sex, love and happiness. Not only that, but the very fabric of what underpins society of justice, peace, education and a democratic process can all too easily be bought at a price. Even the air the species breaths, the water drunk and blood from the chalice sustaining a life worthy of living has a "For sale," sticker. Absolving ones sins by the physical payment of redemption is now seen and accepted as a *fait accompli* in the salvation of humankind. Every aspect of humanity is now ready

to be purchased and owned by those with the deepest pockets and the fattest wallets, rather than equitably, morally and lovingly distributed across society. There is now little consideration or compassion by the 1% who own the world, towards their globalized 99% peasant factory or office fodder cousins. The assumed neutrality of money logic in neoclassical economic theory surely can not hold true when distribution and access to money is so unequal? For many lucky bidders in the daily auction of the market, on the falling of the gavel, the prized possession becomes a trophy of ultimate success, not to be shared with those in genuine need, but to be accumulated. The purchase quickly forgotten as its relevance and significance simply becomes just another notch on the wall, driving a further wedge between the have and have not's. Or if such a prized possession were to ever be shared with those in genuine need, the strings attached by the righteous property owner would ultimately result in a road to serfdom for those forced to sell their body and soul in return. Either way the poor and downtrodden wretched beggars gasping for help and a desire for an equal share of the pie, as they stagger and stumble on an empty stomach, clutching in vain to unforgiving hope that life may improve, before taking their final breath is not far removed from today's inequitable reality. Animal spirits in full glowing glory, as the lion king roars, devouring their prey, offering up just bones and scraps to the lucky few scavengers. The hunters growing ever fuller at the waist, licking their lips, massaging an already inflated ego, whilst mounting on display a trophy for all and sundry to see and presumably adore. A trophy sits atop, crowning and glorifying a mantel piece, symbiotic of the parasitic power of the highest almighty bidder with the most money, the least scruples and the lowest of need.

In a society in which the money-maker has had no serious rival for repute and honor, the word 'practical' comes to mean useful for private gain, and 'common sense,' the sense to get ahead financially. The pursuit of the moneyed life is the commanding value, in relation to which the influence of other values has declined, so men easily become morally ruthless in the pursuit of easy money and fast estate-building... A society that is in its higher circles and on its middle levels widely believed to be a network of smart rackets does not produce men with an inner moral sense; a society that is merely expedient does not produce men of conscience. A society that narrows the meaning of 'success' to the big money and in its terms condemns failure as the chief vice, raising money to the plane of absolute value, will produce the sharp operator and

the shady deal. Blessed are the cynical, for only they have what it takes to succeed. (Mills, 1956)

In biblical times the scripture Matthew 21:12-17 (Holy Bible, 2011) documented Jesus driving the “money changers” from the temple. Morality at the time of the messiah had all but been destroyed. This paper argues modern society needs to again cleanse the temple with a new philosophical and economic blueprint. The conclusion offers such a blueprint commencing at innovation conceptual stage, creating a culture of equitably appropriating value amongst society. Reconceptualising the nature and purpose of the firm in society and how innovation may benefit all inhabitants including the human race, plant species, the animal kingdom and the environmental biosphere will begin reconstructing a broken and unjust society, reapportioning and creating different value sets for the benefit of all. Social entrepreneurs are at the cutting edge of the change in mindset, articulating a new vision for society, underpinned by a new moral code of conduct. However for change to be truly transformative across society and not merely dressed up with a dollop of, “Lipstick on a pig,” in the vain attempt to hide the imperfections of neoclassical economic theory, a new theoretical framework of both business modelling and firm theory is required. Fully understanding the abstraction of Smith’s, “Invisible hand” and the relevance, significance and interdependence of morals in cutting, dividing and sharing the economic pie, offers the reader and practitioner insights that will become apparent when formulating a new theoretical framework for social innovation unveiled in the conclusion (Figure 1. of Appendix 1.).

Modern Innovation Practice

A significant limitation when analyzing an innovation from the perspective of only firms and end consumers as per neoclassical economics is that it excludes stakeholders who may be impacted by an innovation, but may not necessarily have any decision making power. Private firms are viewed

as the innovation dynamo economic and legal incorporation inherently guides towards the assumed logical objective of profit maximizing. However the structure of these firms have rather narrow and limiting processes in terms of inclusive, democratic and collaborative decision making powers. As collaboration, co-creation, cooperation and consensus is the new leadership mantra this is not being matched by new model frameworks to aid the process of innovation as models in use inherently assume profit maximization and competitive markets as a given.

In assessing worthy new enterprises to invest a capitalists' money, understanding the business model and where value is created and captured has become the focal point of innovation. Business models to a large extent dictate the types of innovations funded by financiers as they follow a similar script that is, what is the pain point an innovation is trying to solve? What is the value proposition? What value can be created and captured by the firm? What are competitors doing combined with the financial up and downside risks? Alex Osterwalder's PhD thesis (2004) and "Business Model Canvas (BMC)," a simple one page business modelling framework that evolved from his research has become the new venture creation bible across the world. In essence BMC is a rather simple formula for the different variables X, Y & Z to equal V in terms of value creation and therefore profit. But with any equation if you want a different value other than profit a completely new model equation is needed. This is the shortcoming of BMC as a model when the value created is anything other than profit. It should be noted Osterwalder's PhD (2004) has been cited over 1,500 times and his model taught in practically all Business Schools throughout the world. Over one million copies of "Business Model Generation," by (Osterwalder, Pigneur and Clark, 2010) have been sold worldwide combined with regular volumes of traffic to the accompanying websites (Strategyzer.com, 2016) and (Businessmodelgeneration.com/canvas/bmc, 2015).

Given the influence BMC and slight variants of the model has had on the entrepreneur and

academic community there has been little empirical evidence to support the extensive use. From the sparse literature critiquing BMC both the following papers are critical of Business Model Canvas when applied in the context of social innovation: MBA thesis by (Coes, 2014) “Criticisms, variations and experiences with business model canvas,” and Verrue’s (2014) “A critical investigation of the Osterwalder business model canvas: an in-depth case study.” It is not the intention of this paper to empirically critique BMC, but highlight the model’s short-comings. For the benefit of organizations seeking to establish themselves as social enterprise, further work is needed to evaluate the application of modeling tools and frameworks particularly as BMC is so widely applied. This includes testing the concluding alternative model “Social Innovation Mosaic,” (Figure 1. of Appendix 1.). The defining feature of BMC setting the future scene for the business modeling practitioner is its inherent assumption the legal construct of the firm carrying forward an innovation would be profit maximizing and no other. BMC is somewhat lacking in firstly identifying an innovative firms incorporation status or proposed legal identity. This paper argues it is the fundamental legal construct of the aims and objectives contained in a firm’s memorandum and articles of association that gives rise to a firm’s DNA. It therefore underpins how the firm may then conduct business. Reconceptualizing firm theory offers insights into the theoretical framework underpinning an organization assigning itself the DNA of social enterprise. The concluding model of this paper (Figure 1. of Appendix 1.) offers a new theoretical framework drawing on firm theory in proposing an alternative model to BMC that guides rather than plans innovation.

If following the logic of (Hall and Saias, 1980), strategy follows structure, a firm legally incorporated as a non-profit entity for example and therefore unable to create value in terms of profits and distribute value in terms of dividends to shareholders may well find BMC a totally

inappropriate and ineffective modeling tool. This is particularly true for organizations where value created and key performance indicators measuring the value created is not simply monetary profit, but social impacts. For the practitioner the accompanying “Social Innovation Mosaic,” (Figure 1. of Appendix 1.) guides the social innovation process logic.

The narrative of innovation as purely a monetary abstraction driven by profit maximization now no longer holds true. Those emancipated by social entrepreneurship support progression of an idea through the phases of innovation without enriching thy self. In moving forward if innovation is considered more as a social construct and therefore the impacts are far reaching potentially altering the very fabric of society should not everyone in society have some form of stake in deciding the fate of a future innovation? If such logic is accepted this has significant implications for the nature of the firm as the innovation conduit underpinning how members in society are rewarded. In accepting such a pretext then logically all innovation should be considered social innovation and all firms adhering to such ideals be social enterprises. Perhaps unattainable utopia, but romanticizing would it not be a nice thought if the real upside benefits of the next Google, Facebook, Amazon or Uber were shared equally across society for all to enjoy the spoils of innovation, rather than society forever picking up the tab for the countless failures and external costs of innovation? It is after all innovation itself that causes the process of creative destruction. The thesis of this paper adds to Schumpeter’s analysis and argues social problems are a direct result of innovation in the modern world. In practice social entrepreneurs and societies stakeholders are being guided by a new sense of moral obligation. They fill the void between Adam Smith’s (1759), “Invisible hand” theory and the stark reality that divine intervention, nor government intermediaries, nor strict laws and regulations are enough to ensure everyone in society benefits from innovations.

In the pursuit of profit, individual freedoms and common ownership have been lost to the firm

without society realizing. In restoring the imbalances and inequalities that exist in society, a new innovation blueprint is imperative for all to share and enjoy the fruits and spoils of innovation.

Conclusion : Social Innovation Mosaic

The accompanying framework for practical use by social entrepreneurs called “Social Innovation Mosaic (SIM),” (Figure 1. of Appendix 1.) was created from viewing innovation from a different lens to profit maximization. The SIM model is underpinned by the central premise for all in society to share and enjoy the fruits of innovations, purposeful impact guided by the “Invisible heart,” rather than Adam Smith’s “Invisible hand,” is the key to unlocking the gates to the Garden of Eden. Opening the gates for all to share in the harvest of the orchard will once again feed the five thousand, clothe thy beggar, shelter thy animals and respect thy neighbour. The innovation framework SIM will enable the social entrepreneur to achieve the desired purposeful impact by guiding their social innovation, matching the available resources, capabilities, considering the impacts and explaining them easily to solve a social problem that benefits all in society.

This paper argues that real value for society from innovation must be viewed from both ends of the lens, that is value that is created, but also value that is destroyed in the process of creative destruction. Rather than ignoring the destruction of value, SIM model enables the social entrepreneur to critically consider both sides of the coin. For society rather than the vested interests of a few orchard owners to enjoy the fruits from the seed of innovation and the value that is created and captured, it is imperative to re-evaluate the appropriation of value across the orchard gardens. What is understood by innovations value creation has been challenged in this paper with a new definition: The process of improvement whereby perceived aggregate net benefits of enhanced

economic, environmental and social well being, (The Triple Bottom Line articulated by (Elkington, 1997) of people, planet and profit) is captured and shared as equitably as possible amongst all those in society who may lay a claim to a stake.

Business Model Canvas (BMC), (Osterwalder, 2004) has been a widely adopted innovation modelling tool across all types of organizations including social enterprise. There has been little empirical evidence to demonstrate suitability for organizations with a DNA of social enterprise. Available literature is sceptical of the application of BMC and variants to an organization other than those firms maximizing profit as their objective. Social Innovation Mosaic (SIM) is a complex model, but acknowledges social order has greater complexity than just enumerating profit. A structural functional perspective is drawn upon in the design architecture of the framework. SIM offers the practitioner a significantly improved framework to guide, rather than plan the process of social innovation, for those firms seeking to create value other than purely profit. In constructing a new framework underpinned by purposeful impact and guided by the “Invisible heart,” at the centre, SIM has four essential pillars (Society, Innovation, Organization and Execution). The firm and consumers do not assume a dominant position in the SIM model, rather society and innovation are equally and mutually supported by strong foundations of an organization and its execution strategy. Each pillar is mutually interrelated at the centre by purposeful impact of the “Invisible heart.” A kaleidoscope of interactions are at play in order to germinate the seed of innovation into seedlings, slowly maturing into a fruit bearing orchard that is eventually ripe for picking by all in society to enjoy the succulent juices of new value creation in all colours, shapes and sizes.

It is value creation of innovation, captured by merchant traders and assumed by Adam Smith (1759) which would be distributed for the benefit of all in society, that this paper argues underpins the abstraction of the, “Invisible hand.” Central to this paper’s argument and the accompanying

“Social Innovation Mosaic,” (Figure 1. of Appendix 1.) is for society to truly capture and share in the benefits of innovation equitably and as fairly as possible, it is not the “Invisible hand,” that provides, but rather the morals of the “Invisible heart,” that guides. Moving beyond the lens of value creation being exclusively a monetary construct of profit, only then can society reap the rewards of innovation. The “Invisible hand,” only grabs in an unscrupulous handshake, as much as one’s self interest can fit in the size of the palm.

For social enterprise to have any chance of sitting proudly beside profit maximizing firms, clearly articulating a new theoretical framework that does not simply borrow and reframe their form and function is essential. The narrative of innovation as purely a monetary abstraction driven by firm profit maximization now no longer holds true. In moving forward if innovation is considered more as a social construct and therefore the impacts are far reaching potentially altering the very fabric of society, all members of society should have a stake in deciding the fate of a future innovation. In accepting such a pretext then logically all innovation should be considered social innovation and all firms adhering to such ideals be social enterprises.

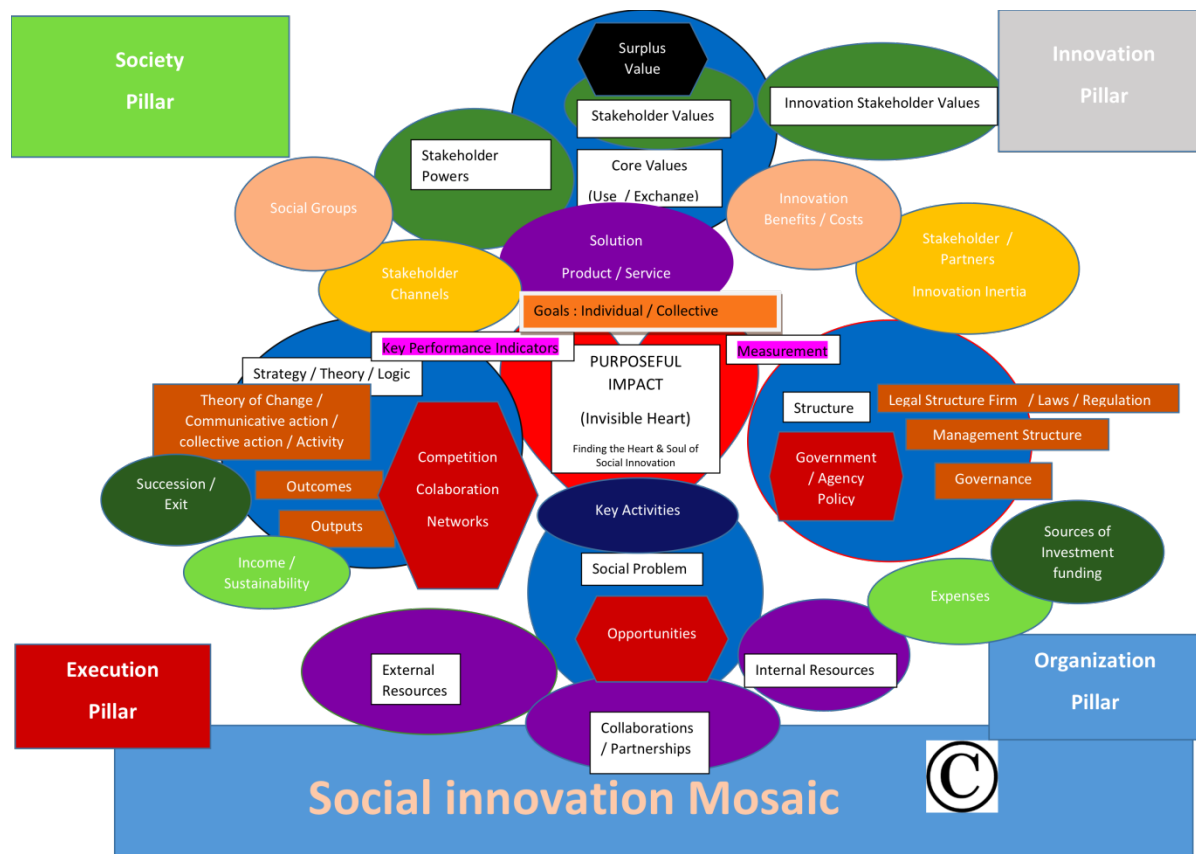


Figure 1. of Appendix 1. Social Innovation Mosaic

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Comparison of Income of the Farmer from Commercial Crops grown in Green Houses, Modern Farms and Seasonal Farms surrounding Hyderabad city of Telangana State in India during 2015-16

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Abstract

The paper is based on primary data based on field survey. Study is emphasised on the production method followed to grow commercial crops comparing their profitability. For comparison, three types of farms selected here have the similarity in the size of farm, dealing in commercial crops, distance to transport the produce, weather conditions and availability of various inputs at the similar price. The farms selected were (i) Protected Farming carried in a Greenhouse (ii) Market Oriented Modern Vegetable Farm and (iii) Season based crop growing Seasonal farm. These farms were observed through a cost benefit analysis to find out the profitability. A micro study of the farms goes against the popular belief of higher investment resulting in higher returns. A farmer with a lot of thinking and experience by taking a wise decision solely instead of getting mesmerized with promotional activities is proven to be more profitable.

Introduction of new methods of production and the experienced farmers modifying their way of production resulted in increased total yields. The race towards additional returns along with attractive subsidies from the government is encouraging them to move towards entirely new

techniques of cultivation. A developing country like India has a necessity for encouraging its farmers to improve their agricultural production for its increasing population. Total population in India and the state of Telangana increased from 43,89,36,918 and 1,27,11,785 in the year 1961 to 1,21,08,54,977 and 3,50,03,674 in the year 2011 (Census of India 1961 and 2011, Census of Andhra Pradesh 1961, Census of India 2011). An increase in urban population makes it necessary for the farmers around the urban area to supply perishable necessary goods. Urban population in Telangana is at 1,36,08,665 in the year 2011 (Census of India 2011). Thus farmers around the urban areas get engaged to produce necessities of the people living in cities.

The main objective of this study is to compare the types of agricultural farmers that adopted the profitable methods of cultivation. Hypothesis is that a lot of variance exists in the farm size and yield. Area chosen for the study is within hundred kilometres radius from the centre of Hyderabad city. The period of study is during 2015-2016. Detailed primary data are collected by filling the questionnaire answered directly by the farmers through their own field experience during the year of 2015-2016. A detailed study of three farmers is taken to reach the micro aspects of the farm.

The study adopts a cost benefit analysis of three different types of farms around the city of Hyderabad; farmers residing in a radius of a hundred kilometres. Farmers have a subsidy of 75% to encourage cultivation in high yielding green houses. Investment in a greenhouse is quite a costly affair with a high amount to be pumped into the construction of green house and its maintenance. Thus the first type of farm (named as green house) chosen is a greenhouse growing Gerbera (Gerbera Jamesonii) flower. This flower growing green house is chosen because it is projected by

the companies involved in the construction of greenhouse as the most profitable crop grown in a green house.

In the second type of farm (named as modern farm) is a modern farm, multiple vegetables are grown on the field arranged with stone pillars and wire for the creepers.

The third farm (named as seasonal farm) is one which grows multiple crops over a seasonal basis where creepers are also grown on the land with few wires arranged to grow on the compound or fence. Here seasonal crops including onion (*AlliumCepa*), tomato (*Solanum Lycopersium*), cabbage(*Brassica Oleracea var. capitata*) and green gram(*Vigna radiate*) are grown based on the season along with other vegetables and fruits on the sides of the field.

The cost incurred and income received in each year on an acre of land of three types of farms is observed. Farmers interviewed answered profit was their motive. Thus, this study looks into these three types of farms regarding benefits received during one year. The similarities between the farms are the size and location. All the three farms are located within hundred kilometres from city of Hyderabad with similar climatic conditions and market for produce lying nearby.

The data are fitted into costs A1, A2, B1, B2, C1, C2 and income compared. Cost A1 contains costs incurred on inputs used in the agricultural farms like fertilizers, pesticides, labour, interest on credit (on other than fixed assets) spending on new techniques (seeding equipment or mulching film), transport and packaging cost, power charges, depreciation and other charges (5% to 10% of the crop rots off in the field) advisory pay (advisor helps in farms on usage of fertilizers and pesticides acting as a farm doctor) seeds and sapling (first time plantation along with replacement during necessity)

Cost A1 shows a higher amount is spent by the greenhouse which is three and a half times of the cost of other two farms. The farmers working in the green houses were mostly the large farmers. Existing farmers were ready to opt for a greenhouse even without subsidy. They choose greenhouse to get more profits and to be different from other farmers. Cost to be incurred in the green house has to be available with the farmer which will later be released by government through subsidy scheme. When we compare such farmer to a small farmer the availability of funds for day to day expenses is not a possibility for a small farmer. These expenses may be incurred first and later government releases subsidy based on its inspection. But in case of a small farmer, credit availability also is a matter of concern for the amount to be spent on farm and claim on a later date.

Comparing the percentage of inputs greenhouse spends more on seeds, pesticides, transport and packaging. Seeds or saplings used in green houses are available only through limited suppliers making them costly. Pesticide spray becomes a necessity due to the attack of pests due to a regulated climatic conditions (wind and sunlight are also controlled). The produce is required to be packed under expert supervision and they have to be stored with care.

Modern farm growing vegetables and fruits spends much on labour and pesticides. Most of the labour employed work continuously. They apply fertilizers, pesticides and loosen the soil and they also pick the vegetables. Pesticides are sprayed through a small vehicle spreading organic pesticide through shower system sprayed from below the creeper.

Seasonal farm spent much on labour. Majority of the labour are seasonal labour. Regular labour looked after watering, plucking of yield and inspection whereas harvesting season required more seasonal labour.

Cost A1 is equal to Cost A2. Rent paid on leased in land is zero as all the farms chosen are farmers who own the farm land. Most of the green houses are setup on ancestral farms compared to other farms seen around the green houses.

Cost B2 is, Cost B1 and interest on value of owned capital assets excluding land. In case of greenhouse a hi-tech shed along with water system is arranged. Around ten lakhs is spent for land preparation. Setting of the greenhouse shed and drip irrigation costs around thirty-two lakhs. Bed preparation and a mulching sheet spreading all together costs around forty-five lakhs. Where government subsidises the shed and irrigation costs by 50% to 75% where completion of each work spent from the farmer's pocket is later released by the government based on its quality. At time the entire subsidy may not be granted in a few cases due to few defects after construction of shed. Here the mistake may also occur due to contractor of shed costing heavily to the farmer.

In case of modern farm stone pillars were arranged with a wire mesh which costed around a lakh per acre. With maintenance expenses and soil preparation took the other part of this cost.

Seasonal farm had a barbed wire for creepers and other crop was on open land. Land open to sky was ready to face a risk of seasonal fluctuations in extreme climatic conditions. Cost B1 of green house was greater compared to other types of farms?

Cost B2 per acre of land includes cost B1 and retail value of land highest in green house followed by the other types of farms.

Cost C1 including imputed value of family labour was found that greenhouse required the farmers along with another family member to spend 8 to 10 hours in the green house for a close supervision of the plants where entry was restricted to others. An advisor had to be called in emergency as the infection in one plant would spread to other plants in a short span of time due to

restricted entry of wind and sunlight. Majority of the green houses were family managed and the decision making process was not delayed due to farmer's complete attention.

Cost C2 includes almost all the costs involved in the farm, as the farms chosen for the study here were setup in farmers own land. Land rent calculated at present rental value was similar in the three farms as they are located at an equal radius from the city of Hyderabad. Cost C2 of green house is 35,65,000 rupees and modern vegetable garden is 19,51,000 rupees and of seasonal cropping is 17,49,000 rupees, thus expenses spent on green house was much more compared to other types of farms.

Table 1 **Costs and benefits of three types of farms during 2015-16**

| Farm Inputs | Green House | M o d e r n Vegetable Garden | Seasonal Cropping |
|--|--------------------|-------------------------------------|--------------------------|
| Fertilisers | 1,20,000 | 80,000 | 20,000 |
| Pesticides | 2,40,000 | 1,20,000 | 3,0000 |
| Labour | 3,60,000 | 1,56,000 | 20,0000 |
| Interest on Credit on day to day expenses | 65,000 | 15,000 | 10,000 |
| Spending on new techniques | 30,000 | 20,000 | 10,000 |
| Transport and Packaging Cost | 3,00,000 | 60,000 | 50,000 |
| Power Charges | 1,20,000 | 25,000 | 50,000 |
| Depreciation and other losses | 1,50,000 | 50,000 | 10,000 |
| Advisory Pay | 1,20,000 | 60,000 | 2,4000 |
| Seeds and Saplings Cost | 5,00,000 | 20,000 | 20,000 |
| Cost A1 | 20,05,000 | 6,06,000 | 4,24,000 |
| Interest on value of owned capital assets (Excluding Land) | 1,20,000 | 25,000 | 5,000 |
| Cost B1= (Cost A1 +Interest on value of owned capital assets (Excluding Land)) | 21,25,000 | 6,31,000 | 4,29,000 |
| Rent Paid to leased in land | 0 | 0 | 0 |
| Rental value of owned land(net of land revenue) | 12,00,000 | 12,00,000 | 12,00,000 |
| Cost B2=(Cost B1+Rent Paid to leased in land+Rental value of owned land(net of land revenue)) | 33,25,000 | 18,31,000 | 16,29,000 |
| Imputed value of Family labour | 2,40,000 | 1,20,000 | 1,20,000 |
| Cost C1=(Cost B1+ Imputed value of Family labour) | 23,65,000 | 7,51,000 | 5,49,000 |

| | | | |
|---|-----------|-----------|-----------|
| Cost C2=(Cost B2+ Imputed value of family labour) | 35,65,000 | 19,51,000 | 17,49,000 |
| Total Gross Production (Units/Kilograms) | 14,56,000 | 1,20,000 | 28,500 |
| Proceedings per Unit (in Rupees) | 1.75 | 20 | 15 |
| Gross Income (in Rupees)=(Total Gross Production(Units/Kilograms) *Proceedings per Unit) | 25,48,000 | 24,00,000 | 4,27,500 |
| Farm Income= (Gross Income-Cost A1) | 5,43,000 | 17,94,000 | 3,500 |
| Family Labour Income=(Gross Income-Cost B1) | 4,23,000 | 17,69,000 | -1,500 |
| Net Income=(Gross Income -Cost C1) | 1,83,000 | 16,49,000 | -1,21,500 |
| Farm Investment Income =(Net Income+Rental Value of owned land+Interest on owned Fixed Land) | 15,03,000 | 28,74,000 | 10,83,500 |

Source: Field Survey Data

Note: The Figures are rounded to the nearest 1000 value for convenience.

Income earning of the firm are basically studied under gross income per acre where total gross production in units or kilograms is multiplied in money terms. Green house produced Gerbera flowers in the entire one acre for the entire year. Plants flower for around four years. Every day 4000 flowers were expected from an acre with seasonal fluctuations in price as half of the year was the season and other was offseason. Each flower was priced between 1 rupee to 2.5 rupees.

In the modern farm multiple vegetables were produced. Every day half a tonne was the produce which was sent to the market on a regular basis for the entire year. The price of all the vegetables varied between 10 rupees and 30 rupees. Considering the wastage and seasonal low yield the production was considered, thus gross income was 24,00,000 rupees.

In the third type of farm seasonal crops were grown along with the vegetables and fruits. In a year based on the seasonal yield on onions was four and half tonnes and sold at 20 rupees per kilogram, yield of cabbage was twelve tonnes sold at 20 rupees per kilogram, yield of tomato was eight tonnes sold at 10 rupees per kilogram and yield of pulses being four tonnes sold at 80 rupees

per kilogram and additional income was earned from coexisting crops like Coconut, Banana, Mango, Guava and vegetable creepers around the field with a gross income of 4,27,500 rupees.

Farm business income is arrived at by adding gross income and Cost A1 which was highest for modern farm followed by green house and then seasonal farm. All the farms grow commercial crops and not non-commercial crops where profit rate is less but still a lot of variance is seen in farm business income.

Family labour income includes gross income and Cost B1, it seems highest for modern farm followed by green house and loss is seen in a seasonal farm.

Net income showing the difference between gross income and Cost C1 is highest for modern farm followed by greenhouse which is almost 11% of what is earned in a modern farm. Seasonal farm shows a negative value showing a loss.

Farm investment income adding net income, rental value of owned land and interest on owned fixed land was highest for a modern farm which is almost double the income earned from a green house.

It can be concluded that modern farm is seen to be more productive compared to greenhouse. Seasonal farm followed along with commercial crops also look to be non-profitable. Huge investment involvement along with subsidy given to encourage the farmers only encouraged large farmers as they had sufficient funds for initial investment. Availability of credit at 1% rate of interest for green houses compared to the 2% available for other crops is only serving large farmers. But lower returns got through huge investment done at the cost of attractive subsidy is resulting in temporary earnings which do not in any way weight with the investment. Reasons for the variation in the returns are mainly due to the farmer's timely decision making, reaction towards the usage of necessary technology as well as the favourable market price. As per the study it is proved that hard working and timely decision making farmer was a profit gainer even with lesser investment.

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Agricultural Trade Liberalization Effects: Case of Saudi Arabia

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Abstract

In this research, we will explore the commercial consequences for the Saudi Arabia (KSA) of agricultural and agri-food trade liberalization in a multilateral framework. The interest of this work is that when the effects of tariff and nontariff dismantling will begin to be felt, trade flows will face two symmetrical effects on each export market, which can be grouped respectively in trade creation and trade diversion effects. We will analyze their theoretical basis, and will develop a methodological approach based on a gravity model to evaluate both effects. The goal is to isolate the role of relative prices as indicator of trade barriers, from other factors likely to influence trade flows of the KSA with other countries (traditional factors of size and distance (geographic and economic)).

The estimated model will calculate the potential exports that would have been realized if the "normal" conditions of the exchange were fully insured. We get thus an estimated indicator which, when compared with the observed level, could show whether each partner is to meet fully the opportunities offered by each particular market, given the current legal framework. We proceed finally to compute the potential agricultural balance of trade for KSA, which would provide information on the dynamics of any multilateral free trade agreement. A comparative analysis with the observed balance of trade will show if such arrangement could mitigate the domestic agricultural deficit face to the Rest of the World (ROW).

Keywords: Agricultural Trade Liberalization, Traffic Creation and Traffic Diversion, Gravity Model, Competitiveness, Potential Trade Flows, Potential Gain of Agricultural Trade Balance.

JEL classification codes: C22 ; C5 ; C53 ; D6 ; D61; F13; F14; F15; F17; F43; F6; Q17

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1.10. Theoretical Basis of Analysis:

1.10.1. Traffic Creation and Traffic Diversion Effects:

The effects of a preferential agreement on trade flows can be analyzed in the standard framework proposed by *Viner (1950)* and *Meade (1955)* to study the consequences of a customs union process. Originally, the main objective of this analytical framework was to conduct a discussion on the effects in terms of welfare in the world, of FTAs or regional customs unions. The negative effects in terms of welfare were identified by the concept of deflection across substituting efficient production by another relatively less effective, while the positive effects were designed by the traffic creation concept of replacing ineffective production by another more effective.

These two notions are perfectly applicable to the study of the consequences of the intended opening in agriculture, taking into account, of course, relatively specific context of this opening. In particular, we will look at the risk of trade diversion and the opportunity to creating traffic, in detriment and in favor of KSA respectively. Export growth and / or decline of imports, following market opening, would be considered a traffic creation for KSA. However, a drop in exports and/or growth of domestic imports constitute a diversion of which should burden its trade deficit.

In this context, free trade is likely to cause, for KSA, two types of traffic diversion. On the main market trading partners, first of all, the products of other countries may exclude competing products from KSA already enjoying preferential access if they are more efficient in the sense of Viner and Meade. This diversion will lead therefore to a decrease in the value of domestic agricultural exports to these markets. Then the opening of the KSA market to agricultural trade flows from other partner countries, is likely to rule out other products, certainly cheaper, but are third source, generating an increase of the cost of national imports. Finally, the integration of KSA in the multilateral space of agricultural trade offers opportunities to boost its traditional export

flows to main partner countries, and create other traffic once the quota being applied and prohibitive entry prices will be eliminated.

Thus, any liberalization of agricultural trade at multilateral scale would lead for the KSA economy to two symmetrical effects:

1. A trade diversion effect which consists in a decline in exports to other countries, given the free access and the acceleration of competition, and a decrease of local production due to cheaper price of imports.
2. A traffic creation effect resulting in growth of export flows to main partners and, potentially, the conquest of new markets and stimulation of new products.

The net effect is a priori ambiguous and requires a quantification of the effects of diversion and creation traffic. This step would simultaneously reposition the synthetic indicators of specialization and competitiveness of products made by the different partners on the free market. The next section will develop a methodological approach based on a gravity model to model both effects induced by the free trade in agriculture.

1.10.2. Gravity Model Suitable for Effects of Liberalization:

Methodologically, any approach should allow, first, to separate the effects of TC and TD coming from the association agreements of other effects that can influence the dynamics of bilateral trade (stimulation of supply and demand through income growth, greater integration into international trade through production conditions becoming more competitive). The following analysis aims to bring these points to answers, using an approach based on gravity models.

1.10.2.1.Specification of Explanatory Variables:

It is certainly essential to stay as close to the theoretical framework, however, some differences are inevitable, given the lack of appropriate data. As in the model of *Bergstrand (1985, 1989)*, some approximations must be made: we estimate the national income by GDP, factor endowments by GDP per capita; transport costs will be represented by the distance between the two economic centers of the country and a dummy variable indicating the existence of a common border between the two countries. The commonly used in the empirical literature is the distance between the capitals of the two countries respectively. These approximations can unfortunately only reduce the

quality of model results; indeed, while for example the transportation costs are different for each agricultural flow, approximations corresponding thereto are aggregated.

Then in the Bergstrand model, price components are replaced by wholesale price indices. However, this choice seems the more questionable in this approach: wholesale price indices only give an indication of the evolution of prices in each country since the base year. They therefore reflect the cumulative inflation rate in each country. But what matters in explaining trade between countries that are rather the relative price levels between the partners, which indicate possible price competitiveness in favor of one or the other. It would therefore be preferable to estimate a gravity equation that includes relative prices.

The introduction into the gravity model of prices, beside the nominal exchange rate, unfortunately could bias estimates because of their strong correlation (*Festoc F. (1997)*). We note, then, a solution of combining these variables to keep only one; this is to use the real bilateral exchange rate between countries i and j , which will be equal to the ratio of prices weighted by bilateral nominal exchange rate. This choice enables to solve the correlation bias, but also realize that this is not so much the nominal exchange rate that influences trade flows between the two partners, but rather the real exchange rate. Indeed, its evolution over the years would take into account the evolution of the competitiveness of each country (*T. Bayoumi and Eichengreen B. (1995)*, *Laporte B. (1996)*, and *Soloaga I. and A. Winters (1999)*). Being considered the uncertain perspective of exporter country i , an increase of this variable indicates an improvement of the competitiveness of the country relative to its competitors in the importing market (country j). The sign of RER is expected, therefore, to be positive. All explanatory variables will be associated subsequently with a selected series of countries constituting the reference sample basis for further regression.

1.10.2.2.Presentation of the Gravity Equation:

In its estimable version, the gravity equation can be written as follows for each export market:

$$\log X_{ij} = b_1 + b_2 \log GPCST_i + b_3 \log GPCST_j + b_4 \log GPPK_i + b_5 \log GPPK_j + b_6 \log DIST_{ij} + b_7 \log CF_{ij} + b_8 \log RER_{ij} + e_{ij} \quad i \neq j \quad e_{ij}: \text{error term.}$$

X_{ij} : amount of agricultural exports from country i to country j in \$.

$GDPCST_i$: Gross domestic product i in constant \$.

$GDPCST_j$: GDP of country j in constant \$.

$GDPPK_i$ = GDP per capita of country i .

$GDPPK_j$ = per capita GDP of country j .

$DIST_{ij}$: distance between the capitals of i and j .

CF_{ij} : dummy variable equal to 1 if countries i and j share a common border, 0 if not.

$RER_{ij} = P_j^* / P_j^i$: bilateral real exchange rate

P_j^* = Agricultural weighted average export price of competitors on the market j , measured in \$.

P_j^i = Agricultural export price of country i on the market j , estimated in \$.

Except of the distance variable parameter whose expected effect is negative; a greater distance between the two countries adversely affect the flow of trade between them, the sign of the other parameters of the model are expected to be positive. In particular, an increase in the real exchange rate involving a relative decline in export prices of country i , makes its products more competitive on the market of the country j , and therefore boosts its export flows to that market.

Once estimated on each export market, the gravity equation gives an overview of the average impact of each explanatory variable on overall exports of country i to country j . It allows then to calculate the theoretical exchanges of country i with country j giving explanatory variables observed values. Comparing with observed exports, we can deduce each country's performance on the partner market. Trade below their potential show an underperformance compared to the average relationship of the reference countries, given specific values introduced into the equation of the explanatory variables relative to both countries.

1.11. Empirical Modeling of Potential Trade Flows:

1.11.1. Gravity Equation:

The equations of export flows are developed from a gravity model and estimates are annual and are spread from 2004 to 2014. The method used is ordinary least squares (OLS). This allows us to consider the information contained in the zero trade flows. The estimated values of model

parameters allow judging the role of different factors in the direction of export flows. In addition, and through the evolution of these values over the years, we could infer the effects of creation and trade diversion induced by the dynamics of institutional changes that occurred during the study period.

The estimated model will then calculate the potential exports that would have been realized if the "normal" conditions of the exchange were fully insured. We get thus an estimated general profile indicator which, when compared with the observed level, will show whether the each partner is to meet fully the opportunities offered by each particular market, given the current legal framework. We proceed finally to calculate the potential agricultural balance of trade for KSA, to study the dynamics of any multilateral agreement, and to realize, through a comparative analysis with the observed balance, if such free trade conditions could alleviate the domestic agricultural deficit face to the ROW.

Results in *table 1* show the explanatory power of gravity equations throughout the estimated period, with a value of R^2 greater than 73%, and also the relevance of the variables included in the model, with a Fisher statistic value far exceeding the overall level of significance. This gives doubtless rigor to model parameter values in explaining the weight of each variable in the direction of flow of exports on each market. In this context, it should be noted mainly the relative stability of the value of the parameters of traditional variables, over the years. We obtain, thus, an important tool for measuring elements of the impact of these factors on trade, in particular, the gap between the level of observed and potential export flows attributed to these factors.

We begin with the interpretation of the value of the model parameters, before moving to the calculation of potential trade flows. First, we advance that those relating to economic weight ($GDPCST_i$; $GDPCST_j$) are relevant, with a value of the respective parameters in the vicinity of the unit during the entire study period. This result is different from that obtained for the variables of economic distance, which only the parameter of GDP per capita in the exporting country ($GDPPK_i$) is significant, although its value appears relatively low (less than 0.18), while the parameter of GDP per capita of the importing country ($GDPPK_j$), an almost zero, proves insignificant and with alternated sign over the years.

The variables of geographic distance have significant parameters and expected sign, with a particularly high value (greater than 1.50) parameter of the common border (CF_{ij}), while the parameter of the distance ($DIST_{ij}$) is limited to the vicinity of -0.50. We understand here that the

distance between the two capitals is not strictly reflecting transport costs, while the border is an appropriate indicator of proximity. We note, finally, that the introduction of real exchange rate variable in the estimated equation didn't improve its explanatory power, since the associated parameter structurally insignificant, has an approximately negative sign starting 2005. So, it is clear that the relative price, calculated as a weighted average for all agricultural and agri-food products, is not a good indicator of competitiveness. It would probably be when it is calculated for each traded product.

TABLE 1: Estimates Results of Gravity Model during the period 2004- 2014

| Explanatory Variables | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|-----------------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| GDPCST _i | a 0,98 | 0,93 | 0,90 | 0,92 | 0,93 | 1,20 | 1,21 | 1,33 | 1,35 | 1,31 | 1,25 |
| | b (24,8) | (24,5) | (24,5) | (25,6) | (25,5) | (5,0) | (4,9) | (5,5) | (5,7) | (5,5) | (4,9) |
| GDPCST _j | 1,18 | 1,17 | 1,17 | 1,17 | 1,17 | 1,04 | 1,07 | 1,14 | 1,17 | 1,24 | 1,18 |
| | (29,0) | (28,4) | (29,9) | (30,0) | (29,7) | (23,2) | (25,4) | (28,0) | (29,1) | (32,6) | (27,1) |
| GDPPK _i | 0,15 | 0,14 | 0,18 | 0,16 | 0,17 | 0,13 | 0,13 | 0,18 | 0,18 | 0,16 | 0,19 |
| | (3,5) | (3,1) | (4,4) | (3,7) | (4,1) | (4,7) | (5,0) | (5,5) | (5,9) | (6,2) | (5,8) |
| GDPPK _j | 0,02 | 0,03 | -0,01 | -0,01 | 0,03 | 0,08 | 0,02 | 0,06 | 0,04 | 0,03 | 0,06 |
| | (0,4) | (0,7) | (-0,2) | (-0,2) | (0,6) | (0,6) | (0,1) | (0,7) | (0,5) | (1,0) | (1,2) |
| DIST _{ij} | -0,46 | -0,50 | -0,46 | -0,44 | -0,43 | -0,51 | -0,60 | -0,50 | -0,46 | -0,43 | -0,52 |
| | (-6,1) | (-6,6) | (-6,2) | (-5,9) | (-5,8) | (-5,9) | (-6,1) | (-5,5) | (-4,9) | (-4,1) | (-5,7) |
| CF _{ij} | 1,61 | 1,50 | 1,64 | 1,60 | 1,65 | 1,74 | 1,78 | 1,53 | 1,44 | 1,41 | 1,49 |
| | (6,6) | (5,9) | (7,0) | (6,8) | (7,0) | (4,2) | (4,2) | (3,7) | (3,5) | (3,4) | (4,0) |
| RER _{ij} | 0,02 | -0,01 | -0,01 | -0,02 | -0,1 | -0,07 | -0,05 | -0,03 | -0,01 | 0,01 | 0,05 |
| | (0,7) | (-0,3) | (-0,3) | (-0,8) | (-0,3) | (-0,6) | (-0,4) | (-0,6) | (-0,4) | (0,7) | (1,0) |
| R2 | 0,74 | 0,73 | 0,74 | 0,75 | 0,74 | 0,74 | 0,73 | 0,74 | 0,75 | 0,74 | 0,76 |
| DW | 1,39 | 1,53 | 1,33 | 1,46 | 1,45 | 1,72 | 1,68 | 1,53 | 1,42 | 1,61 | 1,72 |
| F- STAT | 175,9 | 173,2 | 183,4 | 190,3 | 187,6 | 198,1 | 181,5 | 172,6 | 199,0 | 174,5 | 199,0 |

a. Value of the coefficient of the explanatory variable.

b. Value of t student.

Based on such results, we have proceeded to calculate the values of potential exports on each reference market respectively. Any traffic creation means a reduction in the gap between observed and potential values of Saudi agricultural exports. This may indicate an improvement in national performance on foreign agricultural markets. However, any diversion of traffic should result for

KSA in a less robust dynamics of its export flows and/or in an increase of its imports from the ROW.

1.11.2. Potential Flows of Trade:

Results in *table 2* display that observed agricultural exports of KSA stood at 73% of their potential level as annual average during the 2004-2014. They suggest that KSA didn't fulfill almost 27% of opportunities which would predict factors such as economic strength, economic and geographic distances in relation to the ROW. This supports the idea that the dynamics of discriminatory rates charged in this sector had been an obstacle to the promotion of agricultural KSA flows on the world agricultural market. The trend indicates a decline of the share from 85.2% to 76.2% between 2004 and 2014 (*Fig. 1*). This may offer the KSA new opportunities to increase agricultural exports to other countries, especially with the disturbing evolution of the relative ratio, and the potential performance margin not yet engrossed in these markets.

TABLE 2: Observed & Potential Agricultural Exports of KSA on International Market during 2004-2014. In Million \$

| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2004-2014 |
|-------------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1(a) | 746.7 | 1163.5 | 1167.7 | 1441.9 | 1646.7 | 1990.5 | 1622.0 | 2332.9 | 1191.4 | 953.0 | 2645.9 | 1536.6 |
| 2 | 876.4 | 1359.3 | 1455.9 | 1938.0 | 2461.4 | 2708.2 | 2659.1 | 3342.2 | 1671.0 | 1346.1 | 3476.9 | 2117.7 |
| 3 | 85.2% | 85.6% | 80.2% | 74.4% | 66.9% | 73.5% | 61.0% | 69.8% | 71.3% | 70.8% | 76.1% | 72.6% |

a. Data from database: UNCTAD - Trade Analysis Information System (TRAINS).

1-

Observed Exports Value 2- Potential Exports Value 3- Ratio of Observed Exports in Potential Exports

In the market of KSA, moreover, the different partners are found, as a whole, above their natural export capacity, with an annual average ratio value of 145% (*table 3*). This shows the relative openness of the KSA economy to the international market in agricultural domain enabling partners to cover 45% above their potential export capacities to the domestic market. Even more, the

apparent increase in the ratio from 137% to 145%, displays that the other countries are already conquering the Saudi market, minimizing, a priori, the effect of any future liberalization (*Fig. 1*).

TABLE 3: Observed & Potential Agricultural Imports of KSA from the ROW during 2004-2014. In Million \$

| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2004-2014 |
|-------------|---------|---------|---------|---------|---------|---------|----------|---------|---------|---------|---------|-----------|
| 1(a) | 13432.4 | 17597.3 | 18983.6 | 23916.1 | 25136.3 | 21599.3 | 30769.26 | 39935.1 | 43263.0 | 43263.0 | 47913.5 | 29619.0 |
| 2 | 9840.6 | 13889.0 | 12630.5 | 16008.1 | 15789.1 | 13722.6 | 20622.8 | 26892.4 | 31811.0 | 31102.1 | 33043.8 | 20486.5 |
| 3 | 136.5% | 126.7% | 150.3% | 149.4% | 159.2% | 157.4% | 149.2% | 148.5% | 136.0% | 139.1% | 145.0% | 144.6% |

a. Data from database: UNCTAD - Trade Analysis Information System (TRAINS).

1-

Observed Imports Value 2- Potential Imports Value 3- Ratio of Observed Imports in Potential Imports

105of demand in the past, could improve the situation by mitigating the effect of the traffic diversion on the domestic market.

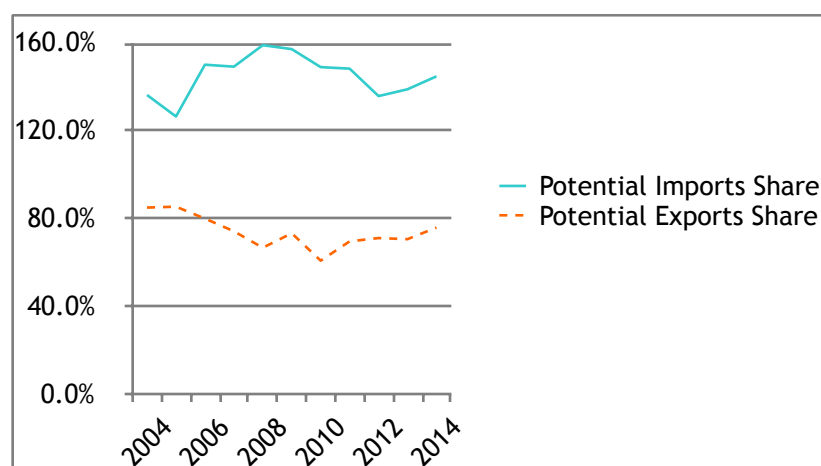


FIGURE 1: Potential Share of Agricultural Trade of KSA with the ROW during 2004-2014

More explicitly, the KSA has historically a structural deficit in agricultural flows degrading from 13 to 45 billion \$ between 2004 and 2014 (*Fig. 2*), and giving an annual average of 28 billion \$ per year. The explanatory factors combine, on the one hand, the relative openness of the national market on imports from all sources, given the need in this matter and the relatively high standard of living permitting tolerance of access to luxury agricultural consumption (*Oxford Business Group (2014)*). On the other hand, the complications affecting a free world agricultural trade constitute an

obstacle to the promotion of national exports and subject them to the various tariff and nontariff measures limiting their access to the market of other countries (*Eugenio D. B. & all. (2006)*).

TABLE 4: Observed & Potential Agricultural Trade Balance of KSA during 2004-2014. In Billion \$

| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2004-2014 |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|
| 1(a) | -12.69 | -16.43 | -17.82 | -22.47 | -23.49 | -19.61 | -29.15 | -37.60 | -42.07 | -42.31 | -45.27 | -28.08 |
| 2 | -8.96 | -12.53 | -11.17 | -14.07 | -13.33 | -11.01 | -17.96 | -23.55 | -30.14 | -29.76 | -29.57 | -18.37 |
| 3 | 3.72 | 3.90 | 6.64 | 8.40 | 10.16 | 8.59 | 11.18 | 14.05 | 11.93 | 12.55 | 15.70 | 9.71 |

a. Data from database: UNCTAD - Trade Analysis Information System (TRAINS).

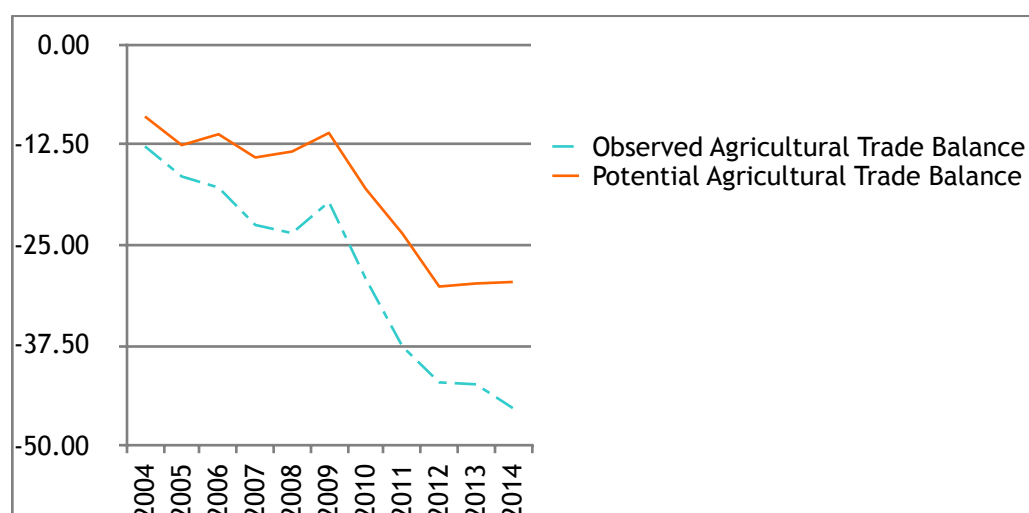
1.

Observed Agricultural Trade Balance 2. Potential Agricultural Trade Balance 3. Potential Gain in Agricultural Trade Balance

Subsequently, any arrangement towards the elimination of agricultural trade barriers possibly will build up the role of prices in the allocation of flows and enable the various countries to readjust their share of trade in line with their competitive position. In such circumstances, it is expected that Saudi Arabia could target new markets as well as further products to recover the level of its potential exports. By the same, the change in relative agricultural prices and the opening of markets on a global scale is likely to reorient future flows to destinations that take into account factors such as geographical proximity and transport costs, and thus causing a fall in the value of agricultural imports on the domestic market.

FIGURE 2: Observed & Potential Agricultural Trade Balance of KSA during 2004-2014. In Billion \$

Such developments could converge the observed levels of flows towards the



potential ones, and make it possible to alleviate the agricultural deficit which will be expected to

undergo a less intense evolution from 8.96 to 29.57 billion \$ between 2004 and 2014, thus limiting its average level to 18 billion. This could lead to a potential gain in national agricultural balance increasing from 3.72 to 15.7 billion \$, with an annual average of 9.71 billion (*Fig. 3*). In other words, Saudi Arabia could have realized a gain of \$ 107 billion over the entire study period if free trade rules were introduced in the agricultural sphere on a global scale.

1.11.2.1.Conclusion

The analysis of agricultural trade flows involving the KSA with the ROW, if it advanced the particular impact of the current legal framework on the growth of observed ones; it also helped to draw a set of conclusions about their potential levels, compatible with the establishment of normal rules of trade. First, any multilateral liberalization is intended to stimulate domestic exports following the overcoming of any previous tariff and nontariff discrimination on international market. Moreover, the imminent opening of domestic market will not profit to foreign exporters which have, already, realized amounts that far exceed the potential predicted by factors summarizing their size and relative weight, which results in higher values of ratio. Hence, any context of openness could have a positive effect on agricultural trade in Saudi Arabia, which should improve its structural deficit and benefit from any initiative towards a free agricultural trade.

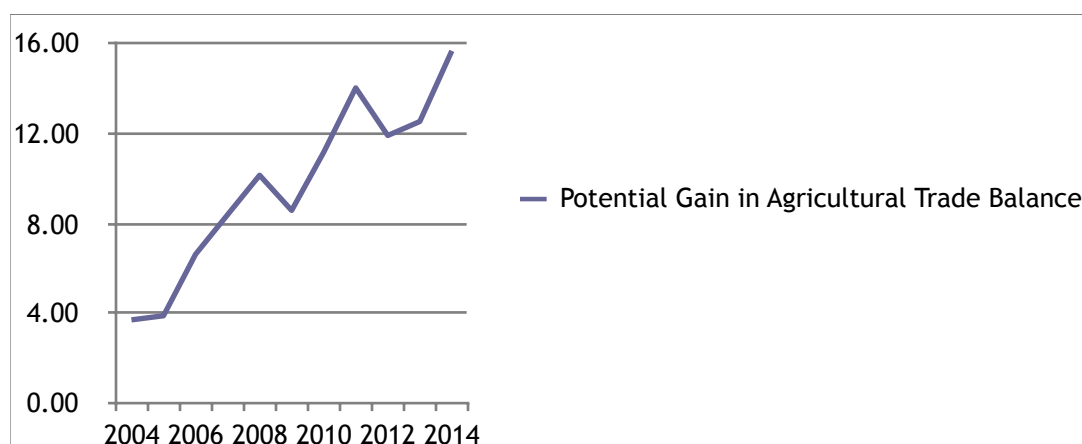


FIGURE 3: Potential Gain in Agricultural Trade Balance of KSA during 2004-2014. In Billion \$

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RATE OF PROFIT AS A PRICING BENCHMARK IN ISLAMIC BANKING TO CREATE FINANCIAL STABILITY

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Abstract:

Although much research has been done on the pricing benchmark both in terms of fiqh or Islamic economic perspective, but no substitution in the concept of interest (rate of interest) up to now in the application of Islamic Banking because some of the jurists from the middle east even allow the use of a benchmark rate such as LIBOR (London Interbank Offered Rate) as a measure of Islamic financial asset prices, so in other words, they equate the concept of rate of interest with the concept of rate of profit, which is the core reason (raison detre) for the replacement of usury as instructed in the Qu'ran. This study aims to find the concept of rate of profit on Islamic banking that can create economic justice and stability in Islamic Banking and Capital market. Rate of profit that creates economic justice and stability can be achieved through its role in maintaining the stability of the financial system in which there is an equitable distribution of income and wealth. To determine the role of the rate of profit as the basis of the sharing system implemented in the Islamic financial system, we can see the connection of rate of profit in creating financial stability, especially in the asset-liability management of financial institutions that generate a stable net margin or the rate of profit that is not affected by the ups and downs of the market risk factors including indirect effect on interest rates. Furthermore, Islamic financial stability can be seen from the role of the rate of profit on the stability of the Islamic financial assets that are measured from the Islamic financial asset price volatility in Islamic Bond Market in Capital Market.

Keywords: rate of profit, economic justice, stability, equitable distribution of income, equitable distribution of wealth.

1. THE BACK GROUND

As a consequence of the abolition of interest, Islamic financial system requires a replacement and applicative concepts of interest at the operational level in the Islamic Financial Institutions which is in accordance with Islamic principles. Applicative concepts as a substitution of interest, in the Qur'an mentioned as profits that derived from the commercial transaction without any exploitation, while in the economic literature of Islam, among others referred to as the (expected) rate of profit⁴ or (required) rate of profit. Some classical economists call it as the rate of profit like Von Neumann and Piero Sraffa. From the neo-classical economist Henry Thornton refer the concept as a marginal rate of profit⁵, while Knutt Wicksell called the concept as a natural rate of profit⁶. In the concept of thoughts itself, there are disagreement among both Conventional and Islamic economist. At the level of application of the concept of rate of profit as a substitution of interest concept is very important, given the policy management of Islamic financial system today in some countries, both at the macro and micro levels still do not have a clear concept.

At the macro level, the application of the rate of profit concept for example can be seen in central bank policy in countries that have implemented Islamic economic system either the dual banking system or Full Islamic economic system (single economic system). Amongst both systems the application in the financial system is different. The central banks are found to have used different transactions in implementing an instrument of monetary control. In the practice of the Islamic financial system, there is a difference of opinion in the use of contracts in the instrument of monetary operations, i.e. the countries with monetary instruments which use the rate of profit that is post determined (ex post) and the countries that use the monetary instruments with the rate of profit that is predetermined (ex-ante). Countries that implement monetary instruments with a rate of profit that is post determined (ex-post) are Sudan, Iran and Pakistan with the contract of Musharakah and Mudharabah, while the countries that implement monetary instruments with the predetermined rate of profit (ex-ante) is Malaysia and Indonesia, namely the contract of Bay 'al-'inah, Murabahah⁷ and Ju'alah. According to the authors, the differences in the use of monetary instruments are due to the differing views on the effectiveness of monetary policy to regulate the money supply. Instruments with a predetermined rate of profit are considered more effective in attracting money in circulation.

At the micro level, the application of the rate of profit concept is often facing a problem because there is no yardstick (benchmark) in determining the profit margin on natural certainty contracts such as the Sale-based contract like Murabahah and the Leasing Based contract like Ijarah in Islamic banking practices in some Islamic countries. Furthermore there is a difference in the application of the rate of profit, especially on a sale based contract i.e. Murabahah. Some

⁴ M.A. Choudury, *Generalized Theory of Islamic Development Financing* (London: The Edwin Mellen Press, 1997), 47.

⁵ Henry Thornton, *An Inquiry Into the Nature and Effects of the Paper Credit of Great Britain*, edited by F.R. von Hayek. (New York : Rinehart, 1965), 35.

⁶ Wicksell, *Lectures in Political Economy*, trans. E. Classen (London : Routledge, 1934), 148.

⁷ Saiful Azhar Rosly, *Islamic Interbank Money Market: Critical Issues on Islamic Banking and Financial Markets*, 595-601 dan Mohd Azmi Omar, Muhammad Abduh dan Raditya Sukmana, *Fundamentals of Islamic Money and Capital Markets*, 60.

Muslim countries apply the rate of profit in Murabahah (called as a margin or mark-up in some countries) and Ijarah (called as ujah or coupon in sharia bond transaction) which are quoted fixed for long term financing transaction. In Pakistan, Murabahah with a fixed rate of profit can be used both in the short term, medium and long term. In Bangladesh, the contract of Murabahah is used for short-term transactions while the Bay 'muajjal with installments is used for the purchase of long term assets. In the UK, the contract of Murabahah even used in home financing transaction with a very long period of 20-25 years.

The Application of the concept of rate of profit⁸ as a replacement of the rate of interest concept (interest rates) in the banking and capital markets (bond) sharia system is often facing a problem in the field because there is no yardstick (benchmark) in determining the profit margin on the contract of sale like *Murabaha* and the leasing costs on the contract of leasing like *Ijara* in Islamic banking transactions or on Islamic bonds transactions⁹. As a result, the entire applications of riba in Islamic financial institutions like the 4-type of interest rate formula i.e. simple interest, compounded interest, fixed interest, variable interest which are all determined in advance (predetermined), are all applied in Islamic Banking Products especially trade and leasing based financing like *Murabaha* and *Ijara*.¹⁰

Among the critical issues that emphasized in the debate over the concept of rate of profit as a replacement of rate of interest concept is that whether Islamic financial institutions has incorporated elements of *'iwadh* (counter value for a benefit of the good or service) or they just do the *ziyadah* (profit creation in the absence of activity in the real sector) in the determination of its rate of profit. According to the theory of Islamic rate of profit, to take a legal profit a product must contain three elements, namely: 1) the value added or value addition in a product as a result of the element of work (*kasb*), 2) risk-taking (*ghurm*) due to the risk of price changes on goods that is traded and 3) underwriting liability in case there is a defects in goods sold (*dhaman*).¹¹

Nowadays Islamic banks in the financial center around the world are still using the LIBOR (London Inter-Bank Offered Rates) which is the average lending rates of the largest banks in London as a benchmark in quoting rate of profit to their products. The use of LIBOR as a benchmark is practiced in the determination of profit margin (rate of profit) of *Murabaha* or *Ijara* for home financing, leasing and other commercial financing such as financing of cars, motorcycles and other consumer goods as well as pricing Sukuk Al-*Ijara* (Islamic Bond). In Indonesia, Islamic banking is still using SBI (Indonesia Central Bank Certificate) or JIBOR (Jakarta Interbank Offered Rate) i.e. interest rate average of the largest banks in Indonesia, in determining the Islamic financing price such as mortgages, multipurpose loan and other financing as well as in determining the *ujrah* (leasing cost) on Sukuk al-*Ijara* in the Capital Market. The use of LIBOR or JIBOR is essentially the interest rate charged by the 5 (five) largest banks in the world financial centers such

⁸ See M.A. Choudury, *Generalized Theory of Islamic Development Financing* (London: The Edwin Mellen Press, 1997), 47.

⁹ Mahmoud A. El-Gamal, *Islamic Finance: Law, Economics and Practice* (New York: Cambridge University Press, 2006), 77.

¹⁰ Abdullah Sa'eed, *Islamic Banking and Interest: A Study of the Prohibition of Riba and its Contemporary Interpretation* (Leiden: E.J. Brill, 1996), 43.

¹¹ Saiful Azhar Rosly, *Islamic Interbank Money Market: Critical Issues on Islamic Banking and Financial Markets*, 595-601.

as London and Jakarta, which is basically the loan transactions between banks in the money market (not profit from real market), and this rate is determined by the forces of supply and demand for money (money supply and demand) as the cost of funds and is not based on the price of rent or (rate of) profit in the market for goods and services.

The use of LIBOR as a benchmark has raised pros and cons among Muslim economists. Mahmoud A. El-Gamal supports the conventional use of LIBOR as a benchmark or mark up on Islamic Sale Based Product like *Murabaha*.¹² According to the Professor of Economics and Statistics and Head of Islamic Economics, Finance and Management Study at Rice University's, the use of "Islamic Benchmark" unnecessary, impractical and dangerous because even though he acknowledges that the implicit rate (rate actually charged) in Islamic financial product differ with the rate of interest in nature, depending on the quality of the underlying asset, but Islamic benchmark in the Islamic financial market is not deep enough and did not have a good liquidity to form a uniform rate implicit (uniform) as a benchmark transaction.¹³ The differences amongst Islamic Economist in the opinion regarding the use of LIBOR, whether it can be used as a benchmark in Islamic financial market in general, can be rooted from the use of LIBOR as a benchmark in the mark-up of sale based product. They argue that LIBOR as a benchmark is treated only as a point of reference (a reference point) to the cost of capital in the Islamic financial market which is currently co-exist with the conventional financial market which is globally using The Time Value of Money Concept. This is in contrast with other Islamic Economists opinions that prefer to use The Economic Value of Time Concept, which refers to the profit in real sector.

The concept of rate of profit as a substitute for the concept of rate of interest is very important in Islamic Finance Theory, because it plays a very central role in assessing the price of any financial assets. In conventional finance, financial asset prices, especially bond (including sharia bond) is largely determined by the rise and fall of interest rates. If interest rates rise, the prices of financial assets with fixed interest (fixed coupon rate) will automatically fall, because the value of the present value or the current price of the assets are valued based on the discounted value of the cash flow of money to come, whereby interest rates is used as a measurement. So in essence, the rate of profit or margin on the sale based transactions such as *Murabaha* and the leasing cost (*ujrah*) in *Ijara* transactions basically follow the prevailing interest rate at the conventional banks.

Malaysia and some other countries are using the LIBOR (London Interbank Offered Rate) as a reference in leasing –based product like *Ijara* or leasing, while in Indonesia, based on the research by the author, Permata Bank Syariah uses SBI plus in Indonesia Rupiah *Ijara* Transaction and SIBOR (Singapore Interbank Offered Rate) plus in US Dollar *Ijara* Transactions. Therefore, it is now very urgent to have a standard on Islamic Benchmark separated from conventional banks considering Islamic economics has different characteristics from conventional economy, especially in terms of determining the rate of profit as compared to rate of interest. Basically the concept of rate of profit is the concept of ex post (post determined-cash basis), while the interest is basically the concept of ex-ante or predetermined (accrual basis).

¹² Mahmoud A. El-Gamal is a professor and Head of Islamic Economics, Finance and Management Study, Department of Economics at Rice University, Houston. See [http:// www.ruf.rice.edu/~elgamal/files /newvita. pdf](http://www.ruf.rice.edu/~elgamal/files/newvita.pdf)

¹³ Mahmoud A. El-Gamal. *Islamic Finance: Law, Economics, and Practice*, 79.

The determination of the rate of profit in the Islamic financial products and Islamic bonds is the key to create economic justice and stability in investment income and welfare of the community. The justice issue can be seen in the form of a just (considerably low) business costs especially for the lower segment like micro entrepreneur when compared to using a system of interest (rate of interest). In the stability issue, unlike conventional banking system which is uses interest rate, the rate of profit which will be used by Islamic Banks and Capital Markets (Bonds) should be guided by the rate of profit or gain in the real sector. In this paper, the author will focus on the rate of profit concept that can create stability in the financial system.

The big question that arises on the formulation of the problem in this research is: "How to realize the concept of rate of profit in the banking and capital markets (bonds) sharia that can create economic stability". To answer the questions above then the question that follows is: 1) How is the role of the rate of profit in creating an equitable distribution of income measured by the net margin of the bank's asset liability management; 2) How is the role of the rate of profit in creating an equitable distribution of wealth which is measured by the volatility of financial assets such as sharia Islamic bonds (*sukuk*) in the Islamic capital market.

1. RESEARCH METHODS

2.1. Types of Research and Approach.

Based on the scientific field, this research can be categorized as an Islamic Economic Research where the research associated with the concepts of Islamic economics and then adjusted with the facts or practices in the field of Islamic economics. Based on the data collected approach, this kind of research is qualitative and quantitative research. The qualitative research is a research procedure that produces descriptive data in the form of words, relating to the understanding, meaning and value.¹⁴ In this qualitative study, the author tried to explain the real facts occurred in the field on the application of the concept of rate of profit in Islamic banks both in the macro-economy and micro-economy levels. After that we see how the concept of Islamic economics of the rate of profit in a comprehensive manner, by doing a research study on the Islamic Rate of Profit and the application of rate of profit which has been applied in the previous Islamic financial institutions.¹⁵ Based on the level of achievement, this research can be categorized as a descriptive research and inferential research. Descriptive research is conducted to describe the phenomena that occur in Islamic financial institutions in terms of both macro and micro, in this case the banking and Islamic capital markets. Inferential research is done to find a solution as recommendation that the application rate of profit may bring justice and economic stability (equitable distribution of income) and the prosperity of the society (equitable distribution of wealth), both in the Islamic banking system and capital markets/bonds (Islamic Financial Market).

To complete this research, the author held a study-case quantitative research on the effects of the use of indirect form of interest rate to the rate of profit of Islamic Bank in the period of rising interest-rate from the period of 2004-2009 in Bank Syariah Mandiri (The Biggest Sharia Bank in Indonesia). The purpose of this research is to analyze the concept of rate of profit that is used in

¹⁴ Kaelan, *Qualitative Methodology in Philosophy Research* (Yogyakarta: Paradigma, 2005), 5.

¹⁵ Muhammad Teguh, *Economic Research Methodology : Theory and Application*, 16-17

Islamic Banking practice and its application as well as the influence of the rate of profit on the distribution of income and wealth (asset value) through the investment product and financing transactions in Bank Syariah Mandiri.

2.2. Data Sources and Data Collection Methods

In this study, the types of data used are primary and secondary data. Primary data is data that is extracted from the main data, in this study because it deals with the concept of rate of profit, the primary data is taken from the literature of Islamic Economics. Secondary data is the data obtained through the processing of the primary data using statistical tools. On this study, the author used the secondary data retrieved from the data of rate of profit that is called The Net Margin (NM) of Bank Syariah Mandiri (BSM) from year 2004 to 2009 (5 years). The period is selected due to the ideal condition for this research where there is a period of rising interest rates.

2.3 Data Processing and Analysis Methods

The main method of the study analysis is documentary research for qualitative research and combined with quantitative research. The research was done by analyzing data or facts that are logically composed from a variety of data both primary and secondary. Other analytical methods that had been used is a survey method (analytic survey), i.e. the research conducted to draw a conclusions in order to obtain further meaning hidden behind the data. To find the concept of rate of profit that creates economic stability, the use of quantitative research on the effect of interest rate volatility as represented by the SBI (along with other factor such as the structure of the balance sheet) to Net Margin (the rate of profit of Islamic Bank)) in the BSM for 5 years i.e. 2004-2009 is being conducted.

3. RESULTS AND DISCUSSION

The concept of rate of profit that can realize the economic stability of the banking and Islamic capital market in this research means the concept of rate of profit that can create economic justice in the distribution of income and wealth. Rate of profit that creates economic stability can be achieved through its role in maintaining the stability of the financial system in which it is realizing the equitable distribution of income and wealth.

The Role rate of profit as the basis of distribution of profit sharing system implemented in the Islamic financial system can be seen in the connection of the rate of profit in creating financial stability, especially in the management of asset-liability of financial institutions like bank resulting in stable net margin or rate of profit to be shared out between the customer and financial institutions that are not affected by the ups and downs of the market risk factors, including the indirect effect of the interest rate. Therefore, we need to see: 1) The role of the rate of profit on the stability of the Islamic financial system as measured by the net margin on asset-liability management of Islamic banks (to create equitable distribution of income); 2) The role of the rate of profit on the stability of the Islamic financial market as measured by the volatility of the value of Islamic financial assets (to create equitable distribution of wealth); 3) Verification of the empirical results of the concept of rate of profit in Islamic banks, by using quantitative research methods, by analyzing data or facts that are logically arranged from both primary and secondary data.

3.1. Rate of Profit Role in Creating Equitable Distribution of Income Measured from the Net Income Margin of Islamic Bank Asset Liability Management

One of the most important tasks of banks including Islamic banks is to transform the maturities of its assets and liabilities. Almost all banks have assets in the form of financing (loans) and investments in marketable securities, which is funded by liabilities in the form of demand deposits, savings deposits, term deposit and the issuance of securities which has shorter maturity than the asset.¹⁶ The occurrence of this balance sheet structure, we named it the so-called Gap (difference in repricing time period) in the assets and liabilities that will have the implications on the exposure of the rate of profit/net income (or in this research, we called it Net Margin) in the bank as a result on the changes in the market variables including indirect result of interest rate that affect the asset-liability of the bank. For example, the intermediary function of banks offering mortgage financing with a *Murabaha* contract with a mark-up or margin of 14% per year permanently (fixed) for 10 years. To finance this home financing bank offering an investment product in the form of short-term deposits with maturities varying between 1-6 months with an equivalent yield of 7% per year equivalent. Here there is a difference in repricing (gap) between assets that are fixed or, in other words the bank facing a gap risk by a fixed rate in 10 years asset with the liability that will be repriced every 1-6 months. The net result of bank income (net margin) or other financial institution (in a conventional bank is referred to a net interest income-NII) at the beginning of the first year thus amounted to 7 percent per annum. If in the second year, there is an increase of interest rates by 1 percent (usually started from SBI rate), this will affect the bank to repriced its liability by 1%, then the bank in the second year have a decreasing net margin to 6% per annum. There has been a loss of 1%, as bank is not able to raise the price of the asset- as a result of fixed 10 years asset.

Risk arises in the rate of profit because of the change (indirect) market variables such as indirect effect of interest rates rise in Islamic banks due to the longer-repricing maturity assets than liabilities is referred to the risk of refinancing (refinancing risk).¹⁷ As a result of the reverse effect can also occur if the maturity of the asset is shorter than a liability, then the rate of profit or net bank margin (sharia) may go down if a decline in bank earnings due to the indirect effects of the decline in market interest rates. This is often referred to as the risk of bank assets to invest or we call it as a reinvestment risk. In general, due to a decrease in the rate of profit as a result of the influence either directly or indirectly on the bank's interest rate is often referred to as the spread risk which is a difference between income (revenues) of the asset and the cost of liability.¹⁸ The Effects of changes in market variables such as interest rates to the rate of profit or a net margin of Islamic banks has become very important because the structure of Islamic banks profit whereby

¹⁶ Andrea Resti and Andrea Sironi, *Risk Management and Shareholders' Value in Banking : From Risk Measurement Models to Capital Allocation Policies* (Chicester, West Sussex, England : Jhn Wiley & Sons Ltd), 3.

¹⁷ George H. Hempel, Donald G. Simonson and Alan E. Coleman, *Bank Management; Text an Cases* (New York: John Wiley & Sons, 1994), Fourth Edition, 596.

¹⁸ George H. Hempel, Donald G. Simonson and Alan E. Coleman, *Bank Management; Text an Cases*, 576.

90-100% of the revenues derived from sale based financing products like *Murabaha* and *Ijara* that use interest rate benchmark (SBI or SIBOR). Any economic system needs a financial system that can maintain the level or rate of profit (margin) which is stable and sustainable to create the stability of the banking and capital market system.

Another risk that is often occurred due to the difference in the maturity of asset-liability re-pricing period of financial institutions is called mismatching that can create liquidity problem. Mismatching is the difference due to the principal amount of assets and liabilities of Islamic banks. Looking at the maturity of assets in the bank either in the form of investment or financing has an average maturity of over 1 year compared to an average maturity of liability with the majority in 1 month period. This has led the bank running the risk of mismatch which causing liquidity risk that may lead to subsequent risks which is more crucial called the reputation risk. This is because banks are not able to provide liquidity in a timely manner resulting in a run-off of massive liquidity so that the banks can't operate anymore because it ran out of cash. From the above facts it can be concluded that the management of net profit margin or the rate of profit of Islamic banks becomes very important in maintaining the stability of the financial sector so that an economic system as a whole can work well. Some theories can be developed to manage the net margin of Islamic banks to be stable and has sustainable growth at such repricing gap models and maturity gap models that adjusted the net margin of the bank to be stable.

In addition, the risk of a decrease in net margin due to the changes in interest rates could lead to the collapse of the asset value (market value) of the assets of fixed income in the bank so that it can lead to instability in the financial sector even worse. The theory that has been developed to manage the market value or the value of the bank's assets is duration and convexity gap models. Financial stability in an economic system can be seen from several factors: 1) The absence of a guarantee of a return on the principal of the placement; 2) Have a positive cash flow in the growing economy condition; 3) Do not face the asset-liability gap and mismatch and 4) Do not connected in the structure of loans (financing) with another bank so as to cause a domino effect.¹⁹ Four of these factors greatly affect the stability of an economic system.

In today's Islamic bank assets and liability management techniques, known as Asset Liability Management (ALMA), that uses the ratio of Rate Sensitive Asset (RSA) and The Rate Sensitive Liability (RSL) as a representation of bank's balance sheet structure is basically the same as in conventional banks. Especially if we are looking at the balance sheet structure of Islamic banks' asset and liability that are dominated by the sale based product, the gap and mismatch of the asset and liability nature basically the same with its conventional counter party.²⁰ Therefore, in order to solve this instability risk in the net margin, Hosein Askari in the opinion that the asset liability model of Islamic banks are ideal when there is no Islamic bank products that are based on the contract of sale and lease such as *Murabaha*, *Istisna*, *Salam* and *Ijara*. In the Islamic Bank ideal model which is developed by Hosein Askari, he described that ideally the assets and liability in Islamic Bank balance sheet should be only *Mudaraba* or *Musharaka* (equity based financing) products which is based on profit sharing scheme. This will create a perfect mirroring structure of

¹⁹ Hosein Askari, etc, *The Stability of Islamic Finance: Risk Profile of Islamic Financial Intermediaries* (Singapore : John Wiley and Sons (Asia) Pte. Ltd, 2010), 134.

²⁰ Hosein Askari, etc, *The Stability of Islamic Finance: Risk Profile of Islamic Financial Intermediaries* (Singapore : John Wiley and Sons (Asia) Pte. Ltd, 2010), 134.

balance sheet resulting in no gap and mismatch risk that will create instability in the bank net margin.

However, practices which are majority prevalent in today's Islamic banking, in order to finance any project, *Murabaha* is used with the the rate of profit or mark-up which is fixed for long periods of time and they are using an interest rate benchmark such as LIBOR from conventional banks or SBI (in US we call it Fed Funds). The creation of the Asset Liability mismatch in Islamic banks which is the same pattern as conventional banks would create ALMA risk that will be strongly influenced by interest rates. If we use the financial measurement tools such as Duration and Convexity as a measure of market risk as a result from changes in interest rates, it can be ascertained that the duration of Islamic banks would always be away above zero. This is because that the majority (70-80%) of assets of Islamic banks are based on the sale based product with a fixed mark-up (rate of profit) for long term. In theory, the ALMA structure of Islamic banks, on the other way around, should produce a "duration and convexity" that is close to zero (risk neutral) as to create stability in net profit of the bank.

The use of margin (rate of profit) in long-term fixed assets of Islamic banks in the *Murabaha* product massively, has create the negative gap of structure of the balance sheet (Rate Sensitive Asset / Liability Rate Sensitive < 0) or also called positive net refinancing. In the conditions of interest rate rises rapidly then this condition will result in adverse effect on the net margin of the banks because banks are not able to make changes in the rate of profit of the assets (already fixed in the long term). These events are called "negative spread" in conventional banking whereby the rising interest expenses exceed the interest income of the Bank. In a state of economic overheating, as it did in 1998 in Indonesia, the "negative spread" phenomenon is prolonged and the loss had been continuously eroded bank capital resulting in almost all banks have to be rescued by Bank Indonesia Liquidity Assistance (BLBI). The banks that had to be bailed out by the central bank rescued by issuing Government Recapitalization Bonds (Recap Bond) amounting up to Rp 650 trillion.²¹ This condition has to be expensively paid through the taxes by all of the people of Indonesia up to now.

In Islamic banking practices, the wrong application in the use of *Murabaha* transactions occurred in Home Ownership Financing Product with fixed and long term margin (rate of profit) for 10-15 years which create high volatility if we use duration and convexity risk measurement. This practice is certainly contrary to the principles of Economic Value of Time concept in the theory of Islamic Finance as a replacement of Time Value of Money principle. *Murabaha* margin (rate of profit) is inherently based on the principle of Economic Value of Time should be based on short term profit in the real market (goods market not money market) and should be used for short-term financing. Rate of profit used in *Murabaha* transactions as the economic value of a short-term profit then should be repriced according to the nature of the transactions in the real sector. For *Murabaha* the profit rate should be benchmarked against the leasing cost of the goods periodically. For instance, in car transaction it could be repriced once a month but for home financing it could be at least once a year like in home leasing transactions. This would create a risk neutral balance sheet transactions in Islamic Bank, because *Murabaha* transactions now quoted in fixed profit rate but periodically repriced in shorter term that will create value "duration" equal to zero. Almost

²¹ See Sasmito Hadinegoro, "Stop Obligasi Rekap atau Tunda Bayar Pajak", *Sindo Weekly*, <http://m.sindoweekly-magz.com/artikel/19/i/12-18-juli-2012/analysis/39/stop-obligasi-rekap-atau-tunda-bayar-pajak>. (accessed on 8 Maret 2013).

similar to this practice was *Murabaha* products with a capped system and can be repriced according to market rate (money market rate like JIBOR) was ever introduced and applied by Bank Syariah Mandiri. The difference with the concept of rate of profit is, they based/benchmarked on money market rate, like SBI plus, JIBOR or ATD (Average Time Deposit quoted by the State Banks) that is not based on the profit in the goods market like leasing cost in house/car transactions.

The argument that why the majority of the Islamic Banks today is still using the sale based products (*Murabaha*, *Istisna* and *Salam*), contrary to the Islamic economist against this transactions, said that these transactions are allowed by the majority scholar (*jumhur ulama*).²² Naturally, this transactions are also needed by the Islamic Banks in order to offer a different product variants in the middle of the demands of customer demand that very wide and that the duty of the bank to create a stable asset-liability. Based on the principles of Islamic rate of profit, the transaction based on the contract of Sale Based Product or *Ijara*, the profit rate quoted either in the terminology of margin or leasing cost (*ujrah*) are not used for long-term transactions. In risk management perspective, the longer the period the greater the duration of its value, so the more unstable the change in rate of profit resulting in the more risk in revenue that can cause income and capital loss.

As a solution, Islamic Bank can use variations in contracts with the same financing purpose. For example in financing home or car purchases, instead of using *Murabaha*, Islamic Bank can use the contract called *Musyarakah Mutanaqishah* (MMQ) and *Ijara Muntahia Bittamlik* (IMBT), where by the rate of profit (*ujrah*) repriced periodically according to the profit in the goods market. In the study of the rate of profit concept, these transactions then can be used as a solution for creating a just and stable distribution of income as its rate of profit can be adjusted (reprice) according to the rate of profit in the real sector. Based on this principle, the supposed margin in *Murabaha* transactions as well as the leasing cost charged to the customer in MMQ and IMBT will be the same and also the nature of the rate of profit. In practice *Murabaha* rate charged to customers different in nature with a leasing rate that is charged on transactions of MMQ and IMBT. *Murabaha* quoted in fixed and long term rate meanwhile MMQ and IMBT quoted floating and reprice-able based on JIBOR or SBI even though both transactions were used for the same purpose of financing.

Based on the principle of Islamic economics, in accordance with the rules of Islamic Law, the practice of using *Murabaha* for long term transaction also violate the basic principles of *riba al-fadl* (excessive/exploitative profit). Based on this principle, Islamic banks will manage the rate of profit of the product based on the maturity nature of the transaction. The practice of this principle will separate the management of Islamic banks into short-term assets (*Murabaha*, *Istisna* and *Salam*), medium term investment (*Ijara* and *Istisna*), and long-term partnerships (*Mudaraba*, *Musharaka*) portfolio.²³ With this asset-liability management system, the net profit/income of Islamic banks will not fluctuate due to changes in money market variables. In risk management theory, asset-liability structure with same repricing profile period on both side will create duration approaching to zero or risk neutral, so that it will be immune to the changes in market variables such as indirect interest rates (since Islamic Bank uses interest rate as a benchmark). Asset-liability management that implemented matched repricing profile will also have a sustainable rate

²² Bank Indonesia, *Dewan Syariah Nasional Majelis Ulama Indonesia Fatwas*, 2nd edition. 21-39

²³ Hennie Van Greuning and Zamir Iqbal, *Risk Analysis for Islamic Bank* (Washington : The World Bank, 2008), 19.

of profit growth in line with the asset growth which will be distributed to the *Mudaraba* Deposits customer every month.

Furthermore, the rate of profit concept will be useful in determining the price of Islamic Bank assets like Financing. In its application, Islamic Bank uses the theory of Capital Asset Pricing Model (CAPM) and tries to adjust it with Islamic principles. CAPM theory states that in determining the rate of profit (return) of an investment can be divided into two formulas, namely: (1) Formula represents the risk free return or RF, (2) formula represents the risk premium as a compensation for additional risk bearing for the investor on an investment in a certain time period. The CAPM final formula is: $RF + \beta (R_m - RF)$.²⁴ The first formula is essentially to replace the element of the time value of money concept and the second is the formula concerning the risks associated with an investment in a project or the securities that are selected. If we viewed from the theory on how to determine the rate of profit based on this CAPM theory, the first element is basically based on the rate of interest concept which is the risk free interest rate. In terms of Indonesia case the risk free rate can be represented by Bank Indonesia Certificates (SBI) which is determined in the supply and demand of money in money market (market trade instrument below 1 year maturity). SBI interest rate then is used as the base interest rate (base rate) and benchmark rate in case of Islamic Bank for pricing *ujrah* or margin in the financial markets product and coupon for Indonesian bond product.²⁵ SBI considered as having no risk of default due to the consideration that the central bank as the issuer is part of the Government of the Republic of Indonesia.

Furthermore, using the basic theory of CAPM, Islamic bank extents this concepts for calculating the financing product such as other cost elements i.e. as operating costs (overhead costs), return on equity for stake holder and risk premium for default risk to be charged to the customer. Structurally, all the interests of "profit" are determined exactly in front. Cost of funds component is the compensation given to depositors, whose value approaches the risk free rate of return at a different levels of maturity. This is in line with the Keynes's liquidity preference theory. Demand deposit, Savings and Time Deposits, at different levels of interest rates is in accordance with the purpose of the transaction and the time period. Demand deposit is used for transactional purposes get the lowest interest rates compared to the savings that are usually used as a precaution transaction and deposits for investment (speculation according to the terms of Keynes). Deposits interest rates varying in its yield curve in accordance with the expectations of interest rate and the liquidity premium added if the product to be quoted fixed rate for long term like *Murabaha* originally based on the theory developed by Hicks and Hansen.

Islamic banks that only know the rate of profit for their product then use the benchmark cost of funds from conventional banks which are speculative and its volatility based on the dynamics of the financial markets certainly does not fit with the character of the rate of profit that is guided by the real sector profits. While risk premium component that also added in the formula reflecting the additional burden to the company or the debtor, as an anticipation of bad credit or default risk costs which vary according to the type of industry. In practice, small customer like micro entrepreneur get the higher risk premium charge from the bank resulting in unjust treatment for this segment as they will pay expensive rate of profit. Finally, added by the management profit as represented by the Spread, the asset pricing formula becomes:

²⁴ Willian F. Sharpe, Capital Asset Prices: A Theory of Market Equilibrium under Conditions of Risk, "Journal of Finance," Vol. 19, No. 3, 425. <http://web.cenet.org.cn/upfile/17485.pdf>.

²⁵ Adler Haymans Manurung, *Pengelolaan Portolio Obligasi* (Jakarta: PT Elex Media Komputindo, 2007), 41

$$\text{Cost of fund} + \text{Overhead Cost} + \text{Risk Premium} + \text{Spread}^{26}$$

In practice, the components of risk premium imposed on the segment of micro and small businesses, far exceeded the other components such as the cost of funds, overhead costs and the spread (ROA). Other additional practice is often applied in Islamic Banking called Term Premium which is basically an extra charged due to the fixed pricing quoted for its rate of profit because of the long maturity of the financing such as *Murabaha*. The longer the maturity, the greater the additional premium will be. With the percentage of bad loans are small, then from all the components of the income that earned from financing, the portion of a risk premium, the return on asset for the banker and the term premium is the most dominant component when we compared to other components, so that the financial system such as this would create an unfair income distribution or in terms of the Quran, only circulated among the wealthy amongst you.

In Islamic financial institutions, the term of the cost of funds is not known because it is predetermined and calculated based on the simple or compounded time value of money considered as usury transaction which benefit only the investors. The risk premium is added to address the risk of uncertainty/default risk (according to the opinion of Paul Samuelson) which is charged to the loans taker to ensure the return of the loan.²⁷ This practice against the Islamic principle because it would mean eliminating the element of risk which is one of the legal reason to allow the profit-making (*iwadh*) by *the rabb al-maal* (owner of the funds) in the real sector transactions. Samuelson opinion is contrary to the opinion of Muhammad Baqir al-Sadr stating that the risk of uncertainty/default (risk premium) is not a factor of production and therefore the additional profit is not legal to be charged as a compensation for this risk.²⁸ Profit component to compensate business risk actually can be represented by the spread or return on asset components, i.e. the appropriate level of risk being taken for profit which is allowed by Islamic principles (*iwadh*), as long as not persecute one another or exploitative.

In determining the rate of profit, Islamic Bank should have the real profit proxy that will used as a benchmark which is not speculative (real) and not exploitative, taken from gains in the goods market or the real sector. In taking profit proxy from cash transactions, for example Islamic Bank should not take interest rates in the money market as a benchmark. GDP which is calculated based on the value added of the national production of goods can represent (proxy) a minimum profit rate (rate of profit) nationally, as it is a measure of the level of output of 19 goods produced in the country. This opinion is basically in line with the opinion of Piero Sraffa as the basis for the calculation of the rate of profit.²⁹ After that in calculating the price of financial assets in Islamic banks, we can add other factors like the cost that should be recovered such as: Over Head Cost

²⁶ See Ismail, *Bank Management* (Jakarta: Kencana Prenada Media Group, 2010), 136.

²⁷ Paul Samuelson, *Economics*, 10th edition (Tokyo: MacGraw Hill, 1976), 618

²⁸ Muhammad Baqir al-Sadr, *Iqtisaduna* (Beirut: Dar al-Fikr, 1961), 559

²⁹ Piero Sraffa, *Production of Commodities by Means of Commodities: Preclude to a critique of Economic Theory* (Bombay: Vora & Co., Pub;ishers PVT.LTD, 1960), 6 [http:// laprimaradice.myblog.it / media /02/02/ 2829581832. pdf](http://laprimaradice.myblog.it/media/02/02/2829581832.pdf) (accessed on 15 Mei 2013)

(OHC) and the profit rate coming from asset turnover in the period of financing (Return on Assets) expected by management at the appropriate reasonable industry level. So based on this theory, the price of financial assets at Islamic financial institutions, according to the author should be:

$$\text{GDP} + \text{OHC} + \text{ROA}$$

Thus, based on the above general formula, the rate of profit in Islamic Bank should be cheaper and provide *maslahah* (benefit) than conventional banking because it creates an equitable income distribution when compared to lending rates in conventional bank loans.

The risk of financial instability in the bank net income can be measured by the volatility of portfolio net worth (PNW) per market value of asset that had been managed as below:

$$d(PNW/A) = -dG \cdot dR + CG/2 \cdot dR^2/(1+R) \quad \text{whereby } CG = CA - (L/A) \cdot CL$$

CA = Convexity Asset, CL = Convexity Liability, L = Market Value of Asset, A = Market Value of Liability, D = Duration and R = (interest) Rate

3.1.1. Empirical Study of Financial Stability in the Asset Liability Management in Islamic Banking

To support this qualitative research (related to the concept) and to measure financial instability in Islamic Bank net income/margin, the author conducted a quantitative verification by doing an empirical studies on the influence of interest rates on the rate of profit of one of the biggest Islamic bank in Indonesia (a case study).

For the empirical studies, author took the data of rate of profit growth of Bank Syariah Mandiri (BSM) from May 2004 to May 2009. The year 2004-2009 is chosen because at that period there was an interest rate hike from 7.25 % to 12.25 % due to the financial crisis in United State of America. This condition is ideal when we want to look at the effect of interest rate hike on the rate of profit of Islamic Bank. In a study conducted at Bank Syariah Mandiri from 2004 to 2009 author study the bank's rate of profit which is calculated from the portion of a Islamic bank profit apart from the customer portion represented by Net Margin (NM). The model used in this study is multiple regression time series model, because in this study there is only one dependent variable and more than one independent individual variable. In this analysis we will look on how big the influence of independent variables on the dependent variable. In this study, the independent variable is a numeric variable, since the independent variables were taken from the data of the financial statements of Bank Syariah Mandiri and Bank Indonesia publication data. The type of data is a time series data in the period of May 2004 to May 2009 (5 years).

The model used is a model with multiple regression analysis to determine the effect of 5 Factors i.e. : Balance Sheet Structure of Islamic Bank represented by the ratio of RSA/RSL (Rate Sensitive Assets / Rate Sensitive Liabilities), Islamic Bank Investment in Real Sector represented by the ratio FDR (Financing to Deposit Ratio), Interest Rate represented by the SBI (Bank Indonesia Certificate), Islamic Bank Capital represented by the CAR (Capital Adequacy Ratio) and Islamic Bank Credit Default represented by the NPF (Non Performing Financing) to rate of profit of Islamic Bank represented by the Net Margin to Deposit (NM) of Bank Syariah Mandiri. From the research results shows that the Net Margin of Islamic banks turned out to get affected by the interest rate movement. In this research we are using the interest rate of SBI (Bank Indonesia

Certificate) as a comparison. Research models also illustrate the instability of BSM net margin/income to changes in interest rates, represented by the SBI and other independent factors as below:

$$\text{Net Margin} = \alpha + \beta_1 \text{RSA} / \text{RSL} + \beta_2 \text{SBI} + \beta_3 \text{FDR} + \beta_4 \text{CAR} + \beta_5 \text{NPF} + v$$

The result from the statistical analysis shows a relationship of Net Margin and its independent factors i.e. the Islamic Bank Balance Sheet Structure, SBI (Interest rate) and Capital as below:

$$\begin{aligned} \text{NM} &= 11270-0015 \text{RSA} / \text{RSL} - 0228 - 0225 \text{CAR} \\ t &(30.285) (-3.272) (-10.072) (-8.405) \\ se &(0,372) (0,004) (0.0023) (0,027) \\ R^2 &= 0.801 \end{aligned}$$

From the above model it can be interpreted that every 1% increase in the SBI rates will cause a decrease in the rate of profit of BSM amounted to 0.228%. From this empirical data it can be concluded that the nature of the instability of Islamic banks to interest rates hike with the balance sheet structure (RSA / RSL) below zero (negative gap), will produce the same risk with conventional banks, namely the decline in the rate of profit of Islamic banks. In other words that the rate of profit character of Islamic banks is the same as the character of NIM (Net Interest Margin) of Conventional Banks with the Interest Rate System. Therefore the rate of profit in Islamic banks and Islamic bonds in the capital market should refer to the Islamic Benchmark referring to the profits in the real sector which inherently have low duration (volatility) as it will bring stability to the economy both in the banking system as well as the Islamic capital market.

3.2. Rate of Profit Role in Creating Equitable Distribution of Wealth Measured by the Volatility of Asset Value of Islamic Finance

Basically, all financial assets have cash flow in the form of cash inflows and outflows. Cash inflows can be in the form of installments in the financing contract in Islamic banks, coupons paid by the issuer of Islamic securities and income from investments in the real sector. Cash inflows and outflows can include cash flows that are fixed and predetermined (fixed and ex ante) and cash flows that are not fixed and determined at the rear (variable and ex post). In the Islamic financial system, the cash flow that is fixed and predetermined can be seen on the sale based transaction such as *Murabaha*, *Istisna* and *Salam* as well as the transactions that are based on the leasing agreement such as: *Ijara* and *Ijara Muntahia bit Tamlik* (IMBT). It's fixed and predetermined, because margin or mark-up (in this paper we call it as a rate of profit of the sale based product) is determined ahead and remain unchanged within the prescribed period.

From the characteristics of the transactions that generate cash flows that are fixed and predetermined like this sale based transactions, then the value of a financial asset can be measured. The stability of the financial assets can thus be measured by the value of the asset changes to the change in the benchmark used in determining the transaction price (such as margin, mark up, *ujrah* and all kind of rate of profit) which involved rate of interest as the benchmark such as SBI (if the instrument denominated in Rupiah) and LIBOR (London Interbank Offered Rate) if the instrument denominated in US Dollar. In theory, the measurement of the value of a financial asset can be

determined by The Duration theory.³⁰ The risk of financial instability thus can be measured by the volatility of financial asset prices derived from the formula:

$$(dV / V) = -n (dR / 1 + R)$$

In other words, changes in the value of financial assets (including Islamic Financial Asset) can be affected by the changes in the benchmarks used to assess an asset. For example if interest rate is used as a benchmark on the formula in *Ijara* or *Murabaha* contract, any change in interest rates at 1%, it will cause changes in the value of an asset or assets by: -1 (0.01 / 1.1) for assets with a maturity of one year or at - 0.91%. If a period longer used for example 5 years, the risk of price changes becomes larger assets, namely: -5 (.01 / 1.1) = -4.55%. So the management of financial assets with the interest rate benchmark is very vulnerable to the decline of asset price, which means that it will decrease the public wealth (the investor of the financial asset) in the form of the decline in the value of financial assets.

From this theory can be concluded that the Long Term *Murabaha* financing transactions, for example to finance home ownership, which is usually take a period of 15-20 years have a very large volatility i.e : 13.65% for *Murabaha* with a maturity of 15 years and 18.2% for *Murabaha* with a maturity of 20 years. Here the author concluded that the use of interest rates in Islamic transactions causing instability in the value of financial assets that can be detrimental to investors and lead to instability of the financial system as a whole, i.e both in financial institutions and Islamic bonds like Sukuk. For instance Government *Ijara* Sukuk SR01 Series with 12 percent p.a. coupon payment with a maturity on February 25, 2012 has ever reached the price of 107.7199 or appreciation of 7.7199 percent above the par (initial) level. While the Government Sukuk Series IF8 price with a coupon of 8.8 pct maturing March 15, 2020 had reached 98.50 price or suffer a capital loss of 1.5% of their principal amount.³¹ The price movements of financial assets that can suffer a capital loss (the wealth decline) will lead to instability of the Islamic financial system, due to instability in asset-liability management of Islamic banks, which in turn affects the wealth of the society who invest funds in Islamic banks.

According to the Global Association of Risk Professionals, the interest rate charged on a loan is determined by a number of factors such as time period, namely: 1) Cost of Fund; 2) Spread / margin required for such products; 3) Market Conditions (how much is paid by competitors); 4) The period of the instrument.³² Bank charges interest (rate of interest) on the credit transaction or financing for various ranges of period. Problems on the fourth factor in Islamic Banking because the loan interest rate is calculated based on the theory of Fischer's (The Theory Of Expectation), in which the determination of long-term rates based on the expectations of short-term rates in the

³⁰ Goerge H. Hempel, Donald G. Simonson, Alan B. Colemean, *Bank Management: Text and Cases* (New York: John Wiley & Sons, Inc, 1994), 599.

³¹ Bloomberg Company, www.bloomberg.com (accessed on 4 Juni 2010).

³² *Indonesia Certificate in Banking Risk and Regulation: Work Book Level 2* (Jakarta: Badan Sertifikasi Manajemen Risiko, 2007),49.

future.³³ The Expectation theory is based on the calculation which create structure of interest rates or commonly known as the yield curve in the bond market (capital markets) in the form of positive slope (the longer the period, the interest rate will be higher). The determination of an additional element of term premium as a time-element component is made at the initial stage of agreement without any basis or guided by the profit or loss (rate of profit) in the real sector. Additional premium term is just following the trend prevailing interest rates in the money market and is linear based on the concept of the time value of money. In other words the concept of rate of profit used in *Murabaha* margin has followed the concept of rate of interest.

According to Islamic profit theory, the rate of profit taken in front in the Islamic transactions like sale-based products should be based on cyclical gains (circular repricing pattern) per transaction according to its economic value. If this concept is applied, the rate of profit in a long-term deal, Islamic Bank has to do a mark to the market (MTM) process (the comparison with the rate of profit in the real sector) periodically. In other words, the price adjustment should be carried out periodically as compared to the level of profits in the goods market (repricing) in order to avoid the practice of adding without *illat* / *'iwadh* according to the rules of Islamic jurisprudence.

In general, the current imposition of *Murabaha* profit based on money market rates plus a fixed term premium, basically based on Islamic Bank decision to overcome fears of rising interest rates on the long-term. Therefore, if interest rate unchanged, in practice Islamic banks will give *muqasah* (discount) every month or every year.³⁴ So *muqasah* is provided as a means for adjusting the gain (rate of profit) with market rates (rate of interest). According to the author, based on the analysis of *iwadh* (legal profit), the uses of risk premium and term premium as additional price component in Islamic Bank, are groundless. Instead of using fixed and long term rate of profit, we should use a circular/periodic rate of profit appropriate to the level of profit in the real sector. Rate of profit is circular (as opposed to interest rates that are linear), as a gain in the trading transaction in the period of sale of goods or services. Turn-over of goods sometimes fast and sometimes slow.³⁵ If it is faster, the gain will be big. If it is slow, the gain will be little. So, the gain or rate of profit will follow the pattern of an economic growth.

4. CONCLUSIONS

In conclusion, the stability on Islamic Financial Market which is measured from the equitable distribution of income and wealth of financial asset will be determined by:

- a. The rate of profit in Islamic Bank that creates an equitable distribution of income as measured by the stability of the Net Margin on Asset-Liability Management of Islamic banks, can be achieved by structuring the Islamic banks rate of profit repricing profile based on short-term assets (*Murabaha*, *Istisna* and *salam*), medium term investment (*Ijara*, *Istisna*) and long-term partnerships (*Mudaraba*, *Musharaka*). If the Asset-Liability Management in Islamic Banking

³³ Andrea Resti and Andrea Sironi, *Risk Management and Shareholders' Value in Banking: From Risk Measurement Models to Capital Allocation Policies*, (Chicester, West Sussex, England: John Wiley & Sons Ltd, 2007), 28.

³⁴ Wiroso, *Murabah Sale*, 93

³⁵ Nadratuzzaman Hosen, Maulana Hadanuddin dan Hasan Ali, *Islamic Economic Principles* (Jakarta: Pusat Komunikasi Ekonomi Syariah, 2009), 134.

follows the concept of an Islamic Rate of Profit, The Net Duration of the Islamic Bank balance sheet will be approach to zero or risk neutral so that it will be immune to the changes in market variables such as interest rates.

- b. The rate of profit that creates an equitable distribution of wealth in the Islamic capital market can be seen from the volatility of financial assets such sharia Islamic bonds (sukuk). From the economic analysis, we can see the main factor is a component of risk and term premium for long term being added in the pricing structure of Islamic financial assets such as Islamic bonds which is basically the same additional charged on the loan pricing structure for compensation due to the credibility of the borrower's. This risk premium together with the long term premium structure creates price volatility which comes from the high duration factor. With the concept of rate of profit which is accordance with Islamic principles, the rate of profit will be corresponding to the profit in the real sector and has always adjusted to the changes in the price in the real market (mark to the market methodology) so that the price of the *sukuk* will be more stable.

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The Direct Food Subsidies Policy on Restraining Egypt's Political Unrest and Sustaining the Development of Egypt

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Abstract:

This paper discusses the direct food subsidies policy that has been used by the Egyptian military to directly stabilize the severe political instability and the severe economic hardship of the poor in Egypt after both the January 25th, 2011 & the June 30th, 2013 revolutions in Egypt.

Egypt has been under severe unrest upon the January 25th, 2011's revolution when Egyptians stage unprecedented demonstrations against the rule of Hosni Mubarak and after the ousts of Morsi; the brotherhood elected president in Egypt in July 3rd, 2013. Between and upon those revolutions; the country has been ruled by the military whether directly or indirectly in different means. During this period of time; the military has used a direct food subsidy policy to avoid any humanitarian crisis to happen and to avoid more provocations to another uprising.

The poverty rate in Egypt after both revolutions has gone to a severe level with the dramatic increase of both the inflation and the unemployment rates. The military has then adopted quick measures to reduce the poverty so to give chance for longer term development processes by the government in Egypt and to curtail the political unrest. Most importantly; the military provided all kinds of basic food products in the army's outlets whether at handy prices or for free in many cases. This policy was effective in curtailing more political unrest to happen and to temporarily stabilize the country economically and politically. The military has also adopted pro-poor projects such that replacing old slums to new sustainable cities like for example El Asmarat project that has been adopted by El-Sisi. This paper addresses the theoretical impact of such direct food subsidy policy and such pro-poor policies on the poverty trap in Egypt during the short period of imbalances that happened after both revolutions and on the net social welfare of the country over time.

Keywords: Egypt, political unrest, economic imbalances, crisis management, the Egyptian revolution, food subsidies, sustainable development, social welfare.

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