CENTRE FOR RESEARCH STUDIES

Shodh Gyaan

Knowledge Through Research

Shodh Gyaan

Knowledge Through Research

CONTENTS

From The Dean's Desk

Doctoral Dissertation Writing

I have observed that while pursuing doctoral programme, a few of them abandon in the beginning, some midway and few towards the end. Those who abandoned after having done field research may do so because of many reasons, one of them could be the boredom of voluminous dissertation writing. Some have approached me with the difficulty they face in writing the dissertation. Majority of the doctoral students, I have come across, cannot write well. Some may like writing more than others, but only a few enjoy writing. No doubt, they improve as they go on the doctoral journey; some even getting the satisfaction of having written, especially when their work gets published. Whatever is your typology, finally you have to write a dissertation and write it well to the satisfaction of your guide, advisory committee and the examiners. Both starting and finishing times of dissertation writing create lot of tension; at the starting point the inertia and at the finishing time the resource including time constraints, cause the worry. To overcome this, the doctoral students need to adhere to some discipline. I am giving below these guidelines which is based on my interaction with the doctoral students both pre dissertation writing and post defense.

Health is Wealth

The maxims 'health is wealth or a sound mind rests in a healthy body', are not empty words. Our minds and bodies are meant to function in harmony. Many doctoral students after giving their viva disclosed that their productivity had suffered as they were not giving attention to their exercise, sleep, and eating habits. One of them disclosed, "Sir, I thought working late in night without bothering for adequate sleep will hasten my dissertation writing but it worked just the opposite. I am now convinced that if I neglect exercise, fail to get adequate sleep, or constantly indulge in an unhealthy diet, completing the dissertation becomes increasingly difficult.' Human attention has a limit. Sitting long hours and writing is not good for health and may result in an inferior quality of dissertation. Always take small breaks, walk among the trees or besides coffee shops or around a playground. While walking, think specifically about your dissertation and issues related to it. With the change in scenery, the refreshing green of trees, the stimulus of a bustling coffee shop, or the energy of the playground will revitalize your brain and some new ideas relating to your dissertation may flash.

Dr. A. Sahay
Dean (Research), BIMTECH

Exchange of Ideas

The world is a global village where there is exchange of goods, money, technology and importantly ideas. Some doctoral students tend to lock away their ideas and avoid discussing them with others. This goes totally against the very purpose of research. Research needs to be discussed and debated. You, therefore, need to be networked and exchange your idea not only during planning and doing research but also during writing your dissertation. Discussing with others about your ideas helps to refine and stimulate your thinking. It, further, creates opportunities for you to learn of important resources. Encourage your networked people to ask you questions about your project; this will enable you to think through clearly and understand where your argument is unclear or unsubstantiated. Such discussions and debates always avoids you getting into wrong direction.

Start Writing Early

The dissertation writing is a mini project. As a project needs to be planned well and monitored on time, cost and quality, so is the requirement of monitoring your dissertation. The dissertation writing process is relatively long compared to the other segments of the doctoral research. Further, it is reviewed rigorously by your advisor and your advisory committee; your graduation depends on your successful completion of the thesis and its defense. All, the advisor, the committee and the examiners take substantial time in doing their part; therefore, you need to start writing the thesis as early as possible. The thought of scrutiny by them, sometimes, is daunting and tempt you to wait until you are convinced that you've researched enough about your topic. Some of you even get into non-action mode fearing for the worst. The answer to such a situation is to generate internal confidence and start writing. The longer you put off writing, the more difficult it will be to actually start the process as inertia will take over you. Remember, no research is ever complete. Every research leaves more to be researched. Having spent substantial time in industry, I have experienced that Productivity begets productivity, and thus, when you start writing you will yourself experience how arguments take shape; how further avenues get opening and how you continue to derive direction of your research.

Continuity of Writing

Once a project gets a go ahead signal, the work should never stop until the project gets completed. So, should be the dissertation writing project. It should continue without stop till its completion. No doubt, you will require lot of reading and taking notes even while writing your thesis but what I meant by 'continue without stop' is that come back to

dissertation writing the moment your doubt is clarified and you got the clue to further writing. As in driving, you may require changing the gears. It you park the car for a long time, the battery discharges and starting the car again becomes difficult. Even if you do not have to travel, it is a good practice to start the engine every day to keep the battery in working condition. Likewise, you cannot shelve the writing for long for want of some clarification. You have to get to writing everyday even if you write only a few sentences. Your dissertation writing project should always be moving. Your supervisor will not accept a hundred pages of notes; what he needs is logically written chapters and finally your dissertation with all details. There is no escape from writing, therefore, keep writing which charges your brain. While writing, sometimes you may feel that you have not done the requisite research and that something more needs to be done. Do not vacillate, your supervisor has seen your work earlier and has given you green signal to conclude your research work. She knows how much research work is enough for your doctoral degree. Therefore, start writing and continue till completion of dissertation.

Move in Spiral not in Circle

A spiral is curve on a plane that winds around a fixed center point at a continuously increasing distance from the point. Likewise, the research done is the center point of the thesis writing. Every revision (round) makes the chapters as well as the dissertation better (continuously increasing distance). No dissertation becomes acceptable in the first draft. It requires several revisions of the drafts. Start writing sooner and write continually so that you have enough time for revision and improving the quality of thesis. Never expect the first draft to be the final draft nor ever expect to have reached perfection. Put your thoughts as they come on paper; go back to the written paper and fix awkward sentences, poor word choices, and illogical or unsubstantiated arguments. Your next draft will be better. There is no thumb rule as to how many iterations should be done before finalizing the chapters or the dissertation. Within the time available, do as many iterations as possible. Understand and believe that rewriting is part of the writing process. This acceptability will free your mind to writing in spiral making your dissertation better.

Dealing with Introduction

Different researchers have different strategy of writing the dissertation. Some start writing while their field research is still on while others get to writing when they have completed their research and have done analysis of all the data collected. Whatever may be the case, everyone has to complete the dissertation writing within a stipulated time.

Scholarly writings start with introduction. This is a basic writing principle. But you might have observed that when you start writing the body of a given chapter or section you start referring back to the introduction. Having written the chapter, you may find certain portions are in conflict with the introduction. It is usually easier to introduce something that you have already written for the simple fact that you now know what you are introducing. At times, one writes the introduction first that has a gripping illustration or perfect quote that may capture the reader but having written a fabulous introduction; she gets stuck up as the mind refuses to enter into the body writing of the paper/chapter which has to match the expectations generated by the introduction. It is, therefore, prudent to complete a particular section/chapter and rewrite introduction. Likewise, write all the chapters of dissertation and go back to the introduction chapter to finalize it so that it sinks well with whole work. This practice saves time and lots of worry, tension and trouble.

Research Design and Methodology

Though every chapter of the dissertation is important, the chapter on research design and methodology requires special attention. No doubt, the research objective and research question are the starting point but they have already been deliberated and frozen at the stage of proposal writing. They can be easily elaborated but overall design, the methodology, methods, tools and techniques may change from the proposal stage as you go out and start your field research. Therefore, it is advisable to concentrate on writing this chapter first while writing the dissertation. This not only will give you clarity of thought but will also allow you to stitch together further chapters. It is not good enough to write what methodology, methods, tools and technology you adopted but what is essential in this chapter is to explain why did you chose them. How these serve you better in answering your research questions compared to other methods, tools and techniques. I strongly believe in the adage: "form a solid thesis and methodology statement, the dissertation will write itself." Spend time in writing and rewriting methodology statements so that you will know where you planned to go, where are you going and where you need to go. This will help you a lot during viva as most of the candidates flounder in justifying their design and methodology.

Take Bypass When Required

Clear thesis and methodology are keys to your dissertation. They help you when you get stuck in writing your dissertation. When driving, if we get stuck due to a blockage or a broken segment of the road, we take a bypass. Likewise, when writing the research design and methodology

chapter, if you get stuck, do not waste time, take a bypass. Keep writing; write other chapters till your thoughts on thesis and methodology are clear. Do not hesitate to consult your supervisor and peers again and again till all your doubts have been removed. If you are progressing in your project with other chapters, it will help you to mitigate the panic that so often is faced when you get stuck and your writing ceases. Though one should not get into a habit of avoiding difficult tasks, there are times when it is more effective to move to sections that can be written easily. This saves times and helps overcoming the panic.

When It Gets Tough, Tough Gets Going

The above paragraphs are somewhat contradictory. In the last paragraph I encouraged you to move to another section when you get stuck, but by no stretch of imagination you can procrastinate over the tough spots in your dissertation project; you have to overcome the panic. In this regard, your peers will prove to be of great help. True, you need not continue to write when it becomes clear that you may need to make some structural changes or you need to do a little more research on the topic. However, if you are panicked in writing a particular section of your dissertation because it requires more mind exercise, you can't throw the towel. You have to tighten your belt and take the task head-on. Go back to your working table, think hard, and restart writing till you make some progress. Persistence and perseverance will pay you dividends in terms of successfully handling the seemingly difficult part of your project.

From Laptop to Notepad

The world is moving from notepad to laptop. Now a days, most of the researchers write their dissertation straight on laptop but notepad has not yet lost its relevance. When you get stuck up in writing, it is always helpful to occasionally move away from keyboard and stimulate your mind by sketching out your arguments. It is said, 'a picture is more than thousand words.' Sketching out your frameworks gives you lot of clarity. It is my experience that working on laptops in long spells becomes monotonous; mind refuses to give output. Getting away from the laptop for a few minutes and sketching or writing random thoughts on a piece of paper refreshes the mind. It brings back the thought, energy and vigour to further write the dissertation. I, therefore, advise you to always keep a notepad and pencil on your working table; scribble your doubts, thoughts and sketch frameworks, flowchart etc. This not only to re-energizes you but also forms a base for discussion with your peers.

Smartphone as Notepad

Today, every doctoral student is having a smart phone.

During the breaks in writing, when you move out, it is always good to carry your smartphone for recording new thoughts and ideas. You may be using some quotes that flash in your mind in such errands. Keeping smart phone with you will help avoid misquoting and plagiarism. If you fail to make good notes and are not careful to accurately copy direct quotes and make proper citations, you will be liable to reproducing material in your dissertation that is not original. Any amount of pleading that your plagiarism was inadvertent will not help and you may face severe consequences. You, as the doctoral student, are responsible for taking careful notes and attributing credit to the author whom it is due through proper citation.

Stick to Task

By the time you get to dissertation writing, you have already done the intellectual part of learning and doing research. Completing a dissertation is more of sticking to plan and adhering to discipline. It is not so great a feat of intellect. If you have already allotted chunks of time for dissertation writing, you will surely succeed in completing it provided you do not fritter time and do not accept other tasks in this time slot. Multitasking is a nice concept in industry but you need to avoid it during dissertation writing. Be focused; concentrate on writing. Some studies have shown that multi-tasking is a cognitive impossibility and that our brains can concentrate on one thing only at a time. In reality, there is no multitasking; when we say we are multitasking, actually we are engaged in "switch-tasking", i.e. hopping from one task to the other, rather than doing several things at the same time. Our brains are constantly toggling from one task to the other such as listening to a song on the radio to reading a book, from reading a book to making notes and then back to writing. You will feel really good and feel satisfied with the progress if you stick to an undistracted 60-90 minutes to writing in every sitting.

Productive Breaks

The stretch of concentration of human being is limited. It generally ranges from 45-90 minutes. Breaks are, therefore, necessary to regain concentration while dissertation writing not to speak of the breaks necessitated by inadequacy of materials or change needed in the structure for dissertation writing. But instead of turning to aimless entertainment to fill the break times, it is always advisable to do something that indirectly serves your writing process or re-energizes you. In industry context, studies have shown that overall productivity of workers diminishes and quality of output goes down if they are not allowed to take brief pauses from

their work. This is true even in academic context. Therefore, take brief breaks and make most of it. The break, however, need not be unrelated to your work in order to be refreshing. It needs only to be different from that of writing. For example, if you have been writing for 90 minutes, you break for a while and may be reorganize your desk or walk into the library or discuss with your colleagues about your dissertation and its progress.

Set Deadlines

Generally, universities provide a deadline within which the dissertation has to be completed and submitted. These deadlines are very liberal. As a doctoral student, you must set your stiffer deadlines for various doctoral related activities, especially research work completion, and dissertation writing. It is well understood that your supervisor may not be available at your beck and call therefore, it is necessary to have his advice and commitment over your broad deadlines. Set realistic deadlines rather being too optimistic and stick to them. Always remember, 'I have miles to go before I can sleep.' With this attitude and spirit, I am sure you will meet all the deadlines.

Excellence is a Journey

Dissertation is basically a graduation requirement for doctoral students. Obviously, it needs to meet the quality standards of the supervisor, the advisory committee and the examiners. If it attains a publishable quality it is good for you. What is needed is a good research which is relevant and rigorous. It needs to make contribution to the academic field as well to the user of the research. If you have achieved this, you have done justice to yourself, your supervisor and the research community. At this stage completion of dissertation should be your goal rather than achieving excellence in writing. Excellence is a journey not a goal. Finish the project within the time schedule and plan to write and publish better and better quality of research in future. In your quest for achieving excellence, do not forget your time schedules. You will have enough time to do post-doctoral research when you should strive for excellence which as the name implies goes on shifting.

Enjoy your dissertation writing!

Dr. A. Sahay
Dean (Research), BIMTECH

The Editorial

Knowledge is the only thing which increases when shared.

Dear Readers,

It gives me immense pleasure to announce that Shodh Gyaan has received International Standard Serial Number as ISSN 2395-0617. With every new edition of Shodh Gyaan, we are determined to spread the wings of knowledge across the globe.

This is the second issue for year 2015 with major focus on Insurance, Finance and Human Resource Management. As the Make In India campaign of current government is getting traction from investors all across the world, business is expected to surge. Ranging from manufacturing industries to e-commerce sector, more and more jobs will be created. Flipkart and Snapdeal are right now baby dolls of Indian e-commerce industry. But as the consumerism is spreading in Indians, these India based companies are going to achieve their full potential in coming years. Success of Alibaba Group in China has already shown us changing patterns of market place on domestic as well as global scale.

But it is said that change is the only constant thing. Advent of new technologies like driverless cars, 3D printing, and advanced robotics are going to devour jobs in masses. Airbus has already started experimenting with creating its airplane's parts using 3D printing which is giving a big troll to hundreds of Airbus' vendors producing thousands of aircraft parts. Projects like MIT Cheetah are creating wonders in the field of advanced robotics. Will these things really kill jobs? The answer is yes. But at the same time we must look towards other side of the coin. These technologies are indirectly going to incubate many other job roles. But those jobs will be far away from repetitive work as they will involve extensive use of left part of human brain.

The only way to survive in such a dynamic world is to keep learning new things. By resting on past laurels one is simply digging his own grave. Research has shown that people who read from diverse areas are more likely to bring new perspectives in their professional expertise. With this thought we invite you to taste the nectar of research work from academicians and industry people in this issue of Shodh Gyaan.

Happy reading!

Abhijeet Lele
Editor

Bridging the
Talent Gap

Dr. Shalini Singh*

India Inc. has an incredible growth story and it continues to stand strong and undeterred despite downturns, recessions and tumultuous phases it has to encounter on its way to economic growth. The economy of India is the tenth largest in the world by nominal GDP and, having made rapid strides of transformation in the last two decades, in almost all spheres of business and economy, it is viewed as a significant player in the global economy. Evolving trends place unprecedented value on talent as a driver of business growth and success. However, together with the triumphant journey of India Inc., a flipside co-exists- that we have not been able to engender talent in pace with the demands. Talent shortage is very much evident and hence the need for skill development is a concern being voiced by almost all the sectors.

A World Economic Forum (WEF) report has revealed that only 25 per cent of Indian professionals are considered employable by the organised sector, indicating the need to directionally prepare today's youth for jobs. Half the population of India was younger than 25 years in 2010, which will subsequently change to half the population being under 28 years in 2030, making India a very youthful and vigorous country for the next 20 years. According to a knowledge paper on skill development in India published by FICCI and Ernst & Young in September 2012, despite India having the second-highest population of the working age (15–59 years) individuals in the world, the difficulty level to fill up the jobs is 48%, which is above the global standard of 34%, in 2012. The prime reasons for this paradox are the lack of hard and soft skills, poor employability ratios and lack of sustainable skill development strategies. Enlarging the talent pool will therefore go a long way in facilitating India Inc. to retain the strength we have created and also prevent others to capitalise on our growing employment opportunities.

In today's working environment, there is no doubt that a company's human resources are truly the only sustainable competitive advantage as they can make or break an organisation's long-term growth strategy. In

*Ph.D, Human Resource Management, MDI.

many sectors, skilled professionals are not only the main value-creators of output for the industry but they are also the intellectual capital or the "infrastructure investment".We know that product innovations can be duplicated but the unique skillsets of people cannot be replicated. Hence, with growing global competition, entry of multiple players, market driven changes, our priority should beto develop and continuously enhance people's skill sets to keep up with the changing pace of the world. Organisations continue to scour for talent and, will go many lengths to not only get but also retain the best resources available.

Job-hopping has also become a common phenomenon and very frequent job-hopping may not always be in the best interest of professionals or organisations. Skill shortages across all levels of work not only lead to talented professionals often enjoying a high bargaining power but also create a clear shift from organizational career commitment to individualized career management. In the face of such a scenario, if we were to continue being deficient in skilled resources, the outcome would indeed be dismal.

In order to overcome this problem we need to tackle the root causes responsible for creating the skill crunch rather than tackle it superficially. As the coming years will be times of great change, India Inc. would be able to do less, if our education system is not further strengthened towards creative learning and generating thoughtfulness among students. To start with,

I) Schools need to have a broader vision of training young minds and generating an enthusiasm for knowledge and learning lest it may prove to be one of the most serious challenges facing us in future.

ii) In higher education, we again need to question the quality of employable resources emerging from our Institutions. Rather than focussing on the number of educational institutes and the courses they run, clear focus needs to be given to the quality of education they have to offer. India does have some institutions of learning which have an enviable worldwide reputation for imparting top quality education and they do produce highly skilled professionals, but their number is too small for the sizeable population base. Many a time, the industry has perforce to fall back on average graduates and post graduates whose lack of standard abilities is becoming detrimental for the growing industry.

iii) The lack of synergy between our education system, business needs and market demands calls for aligning education with business needs. The corporate sector needs to work with the Government and the educators to build stronger bridges between our institutional system and career prerequisites. More efforts are required to map current and future demands to develop appropriate curriculum and collaborate with industry so that the employable resources emerging from technical institutions have the requisite skill sets in line with industry requirements.

iv) Feeling the pain, organisations are also designing strategies to close skill gaps. As the nature of work progresses over the career span of an individual, organisations have to take the responsibility of investing in development initiatives to add to the repertoire of skills that their employees have so that there is a culture of knowledge and opportunity leading to a cycle of learning to equip people to not only tackle complex challenges but also occupy leadership positions, inspire and be visionary towards future demands.

v) Reinventing of HR is the need of time and the function needs to evolve in its role in context of management of change, matching resources to future business requirements, organisational effectiveness and employee development. HR must not only play the role of partners in business, strategy, people integration, proactive assessment of impending threats to the organisation, innovative processes but must also function as a business unit adding tangible value to the organisation.

vi) Last but not the least, contemporary vicissitudes at the workplace calls for employees to move away from the passive approach and imbibe an active performance concept and be more accountable for their own development. Unless employees take personal initiative, are self-starters in identifying and overcoming barriers to achieve their goals, are able to map out clear defined steps in their domain and domain beyond areas, only then will they be equipped to flourish not only individually but also collectively and thus take the organisation forward to success.

A skilled work force with its expanded knowledge and competencies will be instrumental in removing the serious impediments to industrial growth. Therefore, India Inc. need to function hand in hand to build our demographic strengths and harness its benefits.

The Role of Insurance in the GCC
(Gulf Co-operation Council)

Anirban Ojha*

Introduction

GCC countries command a large share of the world oil production and trade and enjoy a reasonably high standard of living. The Insurance industry in the GCC region has seen steady growth on the back of economic progress, increasing population, regulatory changes and higher product awareness. Insurance industry has a significant role to play in supporting the economic development and creating awareness within the society. The Key drivers for growth of the Insurance industry in the region has been led by implementation of compulsory Health & Motor Insurance in several jurisdictions. However despite the positive growth of the insurance sector the industry is relatively underdeveloped and trails the global averages on key performance indicators.

Key Challenges

The average annual growth rate in the region hovers around 5%*. However, the rapid expansion in population growth has not kept pace with the growth in GDP*. Even though population growth has slowed recently, the region still has one of the highest population growth rates in the world.**

Another significant challenge is that the market is saturated with large number of regional and international insurance players, each catering to a small base.

The regulatory environment in the region is inconsistent and rudimentary. It is dated to impact substantial changes for the overall growth and development of the sector in the region. In recent years regulatory environment has been significantly improving in various jurisdictions, however the changes can to a certain extent be detrimental and lack sophistication.

The Arab uprising has heightened concerns of overall political instability in the Middle East region. Recurrence of such events may disrupt the general business and investment climate, and cause a sudden spike in insurance-related claims. Awareness about insurance and its

*Mr. Anirban Ojha is Regional Head of Wealth Insurance, HSBC at United Arab Emirates.

benefits remains low among the typical MENA consumers and small and medium businesses. Many fail to recognize insurance as an effective means of wealth protection, savings, and security.

Prolonged global economic uncertainty has posed substantial challenges to insurance companies by creating volatility in investment values and returns. Further, due to the Eurozone's debt crisis, demand for Marine Insurance may remain muted.

Insurance penetration levels remain low when compared with more developed markets. Low insurance penetration, despite strong underlying growth drivers, continues to offer ample opportunities to insurers in the region, such as a growing Takaful market and other innovative offerings.

Key Drivers & Opportunities of Growth

Demographics factors in GCC are key drivers of Growth. The supporting factors are expanding and growing population base, large population of expatriate population who have high propensity for savings and investment. The number of inhabitants in the Gulf is forecasted to expand at a CAGR of 2.4% between 2012 and 2017 to reach nearly 50 million (see Exhibit 1.1)
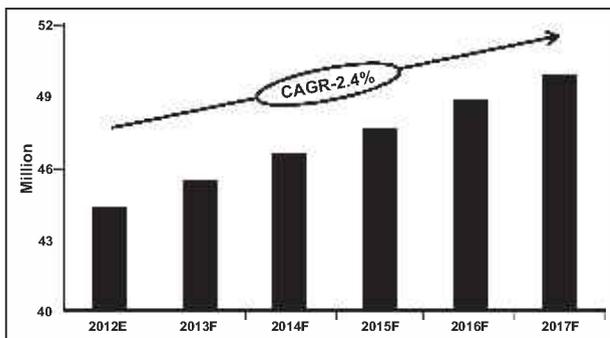

Exhibit 1.1 Population Growth in GCC

Source: International Monetary Fund,
United Nations Population Division

The average life expectancy in the region is around 65yrs which is expected to increase in the near future, thereby leading to have a positive impact on the demand for Insurance products.

Positive economic outlook of the GCC economy is lead by fiscal surplus, government sponsored stimulus measures and favorable monetary policies. Government spending in the areas of infrastructure and social welfare significantly leads the economic growth in the region. Sustained economic growth is, in turn, likely to support expansion of the general income levels of people. Between 2012 and 2017, GDP per capita at purchasing power parity (PPP) in all the Gulf countries is projected to experience a positive growth of 2%-4%(see Exhibit1.2). This, alongside a median age of less than 30 years in most of the countries, suggests a strong propensity of residents to spend on automobiles and residential properties, translating into demand for related insurance products.
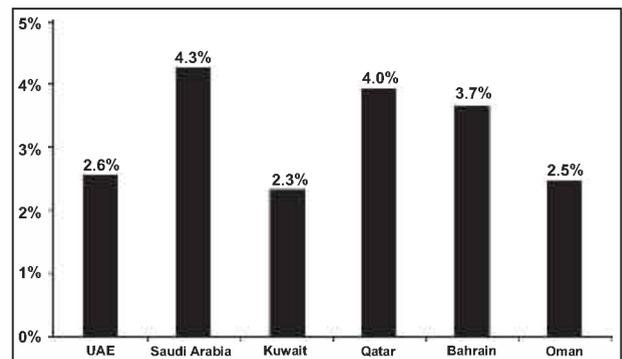
Source: *International Monetary Fund, April 2013*

Exhibit 1.2: GDP per Capita (PPP) Growth in the GCC Countries (2012-2017)

Insurance penetration levels remain low when compared with more developed markets. Low insurance penetration, despite strong underlying growth drivers, continues to offer ample opportunities to insurers in the region, such as a growing Takaful market and other innovative offerings.

The Insurance penetration in the GCC was 1.1% (Global average is at 6.5%) followed by a low insurance density which was at $367 (Global average of $656). The insurance penetration is forecasted to grow to 2.2% and the insurance density forecasted to increase to $751. (Exhibit 2 &3)

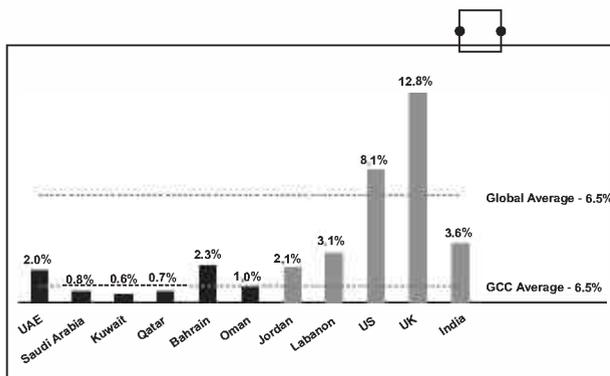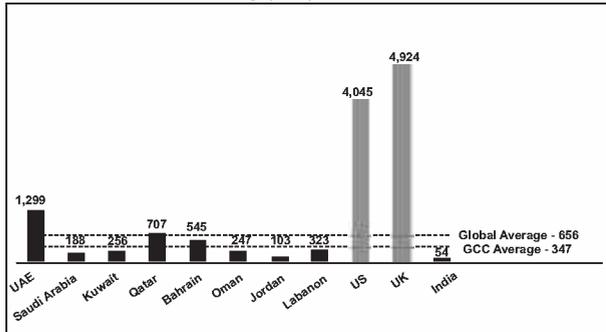**Exhibit 2: Insurance Penetration in the GCC and Other Economies**

Exhibit 3: Insurance Density (US$) in the GCC and Other Economies

Source: Swiss Re, International Monetary Fund, Alpen Capital

Mandatory Insurance schemes implemented through government directives regarding medical and motor insurance in some GCC countries have fuelled a strong growth of these insurance lines. This will not only lead to creating higher awareness for Health Insurance but will also help governments in all the Gulf countries focus on reducing their public healthcare burden.

Further, a widespread prevalence and forecasted growth of lifestyle-related diseases is anticipated to push overall healthcare spending higher, thereby increasing the need in the area of health insurance.

As the GCC countries are populated by a large number of foreign expatriates who are more aware of insurance needs of Long-term life protection, Savings and Retirement. This segment is also characterized by a high disposable income (due to nil individual taxation in most of the GCC countries) and thereby has a higher need to invest the surplus to provide for future goals. This has led to an increased growth of the Life Insurance products.

Role of Insurance

Insurance performs three core economic functions:

- **Insurance enables risk transfer:** Insurance is the most effective mechanism for risk transfer. This helps reduce the burden of insurance costs on the government spending and also on individuals. In technical terms, such risk pooling, based on the law of large numbers, provides value in that the premium paid by individual policyholders is smaller than the cost of an expected maximum loss occurrence.

- **Insurance provides risk management:** By charging a premium that reflects the underlying risks, insurance provides an important signal to policyholders and the economy at large, thereby offering incentives for risk mitigation. Insurers also give risk management advice and services to individuals and companies.

- **Insurance contributes to efficient capital accumulation:** Insurers typically invest collected premiums as reserves for future claims payments. By accumulating large

pools of capital invested in real and financial assets, insurers foster capital formation. In contrast to other financial institutions, insurance assets are typically matched in size and maturity with positions on the liability side, and do not involve maturity transformation. By performing these three core functions, insurers provide important benefits for society and the economy.

- **Insurance enhances well-being:** Insurance directly enhances individual well-being by creating 'peace of mind.'

- **Insurance promotes economic activity:** Insurance reduces the need to hold precautionary capital and thus frees resources for more productive uses. It allows firms to engage in higher-risk and higher-return activities that otherwise would not be undertaken (i.e. by obtaining liability insurance).

- **Insurance facilitates trade:** Insurance has a long history of supporting trade. Today, insurers help firms to manage complex risks associated with global supply chains. Insurance also provides trade credit products to protect risk of default in trade transactions.

Trends

The key distribution models for the GCC market are Bancassurance, Independent Financial Advisors & Brokers. However of late there have been significant interests in developing captive insurance channels. The current market operates on an open architecture model (with multiple providers tie up with single distributors like bank/IFA/brokers), however there is a gradual move towards exclusive arrangements/ agreements in some markets. In some regions this has also been mandated by regulators.

Although at a nascent stage Captive Insurance is also gaining some consideration by key players. Captive insurance is a practice followed worldwide, whereby a company or business group forms a separate legal entity primarily for insuring its risks, thus creating a corporate self-insurance model.

With current limitations on new licenses being provided or entrants, Mergers and acquisitions will become the only prevalent way to enter the already over saturated GCC market. Foreign Insurers have been keen to enter the region given the fact that large expatriate population would be comfortable with the players that are present globally and thereby can avail benefits of portability.

Increased spending by insurance firms in the Gulf towards robust and systematic risk management systems & processes will help them effectively manage uncertainties & Insurance risks.

The Investment mix of the Regional Insurance players has been skewed towards equities and real estate, which has been exposed to volatility thereby by impacting income for providers. The current trend for Insurance companies will be towards balancing their portfolio with a large weightage towards long-term debt or fixed income instruments.

Bank Employees Acceptance of Bancassurance in Haryana - An Empirical Survey

Ashumani Bhatia*
Jagdeep Singla**

Abstract

Bancassurance, as a channel of selling insurance, has fast gained momentum in the Indian insurance scene. The Bank employee, who is at the provider end of the services jointly provided by the banks and insurance companies is influenced by a number of factors while making the sale of Bancassurance products and looks out for different parameters to judge his satisfaction levels. The present study analyses the factors affecting the Bank Employees acceptance and motivation level from Bancassurance of 100 respondents from two cities of Haryana. After agents, banks are the preferred medium of buying insurance because of banks' commitment, cost effectiveness and return on investment. In addition, given the benefits of updated policy information and ease in premium payments and claims receipt, a majority of the employees are willing to sell insurance policies through the Bancassurance mode and offer one stop solution to the financial needs of their customers. Hence, the future of bancassurance can be bright in India too if the tying up companies can channelize their efforts effectively to tap the Bank employees.

Keywords: Bank Employees, Bancassurance, Motivation Level, Acceptance, One stop solution.

Introduction

In the last few years, the convergence of financial services has become a reality. Financial sector reforms in India have reshaped the landscape of financial services sector in a dramatic way. Market got flooded with financial products with varied terms of issues. As private players started gaining momentum, public sector entities, particularly banks, did not lag behind. Banks stretched their arms beyond traditional banking and migrated towards newer and non-traditional operational areas-especially relating to fee-based and non-fundactivities. Delivery of the products like merchant banking, lease financing and hire purchase by banks are in line

*Assistant Professor, HIMT, Rohtak.
**Assistant Professor, IMSAR, Rohtak

with the said migration. Banks entered the insurance sector too. With the entry of banks into insurance business, the term 'Bancassaurance' found place in the vocabulary of Indian financial system. Bancassaurance implies distribution of insurance products through network of Banks. IRDA refers to Bancassaurance as "banks acting as corporate agents for insurers to distribute insurance products". This concept gained importance in the context of growing global insurance industry and its search for new channels of distribution. The banks, with wide geographical spread and sound market penetration in terms of customer reach of diverse segments, have emerged as a viable source of the distribution of insurance products. However, the difference in working style and culture of the banks and insurance sector needs greater appreciation. Insurance is a 'business of solicitation' unlike atypical banking service; it requires great drive to sell the insurance products in the market. It should, however, be recognized that 'bancassurance' is not simply about selling insurance but about changing the mindset of a bank. The system of'relationship banking' has amply contributed in building up of bancassurance.

Following the issuance of Government of India Notification dated August 3, 2000, specifying 'Insurance' as a permissible form of business that could be undertaken by banks under Section 6(1) (o) of the Banking Regulation Act, 1949; RBI issued guidelines on Insurance business for banks:

1. Any scheduled commercial bank would be permitted to undertake insurance business as agent of insurance companies on fee basis, without any risk participation.

2. Banks which satisfy the eligibility criteria will be permitted to set up a joint venture company for undertaking insurance business with risk participation, subject to safeguards. The maximum equity contribution such a bank can hold in the joint venture company will normally be 50 per cent of the paid-up capital of the insurance company. On a selective basis, the Reserve Bank of India may permit a higher equity contribution by a promoter bank initially, pending divestment of equity within the prescribed period.

3. In cases where a foreign partner contributes 26 per cent of the equity with the approval of Insurance Regulatory and Development Authority or Foreign Investment Promotion d bBoard, more than one public sector bank or private sector bank may be allowed to participate in the equity of the insurance joint venture.

4. Banks, which are not eligible for 'joint venture' participant can, make investments up to 10% of the net worth of the bank or Rs. 50 crore (\$ 7.8 million approx.), whichever is lower, in the insurance company for providing infrastructure and services support. Such participation shall be treated as an investment and should be without any contingent liability for the bank.

5. All banks entering into insurance business will be required to obtain prior approval of the Reserve Bank. The Reserve Bank will give permission to banks on case to case basis-keeping in view all relevant factors including the position in regard to the level of non-performing assets of the applicant bank so as to ensure that non-performing assets do not pose any future threat to the bank in its present or the proposed line of activity, i.e. insurance business. It should be ensured that risks involved in insurance business are not transferred to the bank and that the banking business is not contaminated by any risks, which may arise from insurance business. RBI stressed thatthere should be 'arm's length'

relationship between the bank and the insurance outfit.

Remuneration Packages and Incentive Schemes

To raise productivity and lower costs in today's competitive economic environment, organizations are increasingly setting compensation objectives based on a pay-for-performance standard. The designer of the remuneration package should seek to develop a package, which helps each one in the distribution channel to feel that they get a fair reward for their contribution-The compensation package is perhaps the most important element in a sales organization which will influence the volume of business, the costs, the profitability, the productivity and the customer care.

- Financial services providers need to be sure they have the right people, in the right jobs, with the right skills, and at the right price.
- A package therefore needs to be designed to attract and retain the kind of people the company needs in order to develop the kind of sales organization the company wants.
- In developing this package an organization must have clearly in mind the vision of how it wants to be in the future, not just now.
- Before its implementation, the package must be dearly communicated and explained to every single person involved in the bancassurance venture.

Bank Employee Training for Bancassurance

The bank employees will need to be trained in the following aspects of the insurance business:
- Features of the insurance products sold
- How to identify and approach a potential customer
- Basic insurance needs
- Handling basic objections

- Other distribution channels and products
- Expected roles
- Procedures
- Remuneration and incentive schemes
- Cultures
- Customer service

Objectives

The objectives of this study are:
- To analyze how motivated Bank Employees are to generate Bancassurance products sales.
- To determine level (Senior, Middle and Lower) at which employees have more acceptance towards generating Bancassurance products sales.

Research Design

Research design is the arrangement of conditions for collection and analysis of data in manner that aims to combine relevance to the research purpose with economy in procedure of data. It is a blue print specifying every stage of action in the course of research. The research design adopted in this study for collecting primary data is Descriptive research design. It is concerned with the research studies with a focus on the portrayal of the characteristics of a group or individual or a situation. The main objective of such studies is to acquire knowledge. The major purpose of Descriptive research is description of the state of affairs, as it exists at present.

Sampling Design:
A sampling design is a definite plan for obtaining a sample given population. There are different methods of sampling. Here Convenience sampling technique has been used.

Convenience Sampling:
This method of sampling involves selecting the sample elements using some convenient method

without going through the rigor of sampling method. Accordingly, the area selected for the study was bank branches in Rohtak and Panipat

Sample Size:

Sample size refers to the number of items selected for the universe to constitute a sample. The total sample size was taken to be100. The bank employees were selected on random basis from various bank branches.

Method of Primary Data Collection:

The method followed for obtaining primary data was through a structured questionnaire.

A questionnaire is a form prepared and distributed to secure responses to certain questions. Here a well-structured questionnaire was prepared pertaining to all the important details regarding Bancassurance to be asked from Bank Employees.

Significance of the following reasons you believe banks have for distributing Insurance today

Table 1: Communalities of factor variance

	Initial	Extraction
Provide one – stop shopping for financial service products	1.000	.879
Non-interest fee income	1.000	.824
Strengthen and retain existing customer relations	1.000	.930
Giving information and advice according to customers' financial needs	1.000	.662
Extraction Method: Principal Component Analysis.		

The initial component matrix was rotated using Varimax (Variance Maximization) with Kaiser Normalization. The above results allowed the researcher to identify what variables fall under the extracted factor. Each of the four variables was looked at and placed to the factor depending on the percentage of variability. A variable is said to belong to a factor to which it explains more variation than any other factor.

Each number represents the correlation between the item and the un-rotated factor. from the findings as shown by table 1, the correlation between 'Provide one – stop shopping for financial service products' and factor 1 was .879, the correlation between 'Non-interest fee income' and a factor 1 is 0.824, the correlation between 'Strengthen and retain existing customer relations' and factor 1 is 0.930 and the correlation between 'Giving information and advice according to customers' financial needs' and factor 1 is .662. These findings show that all the four factors were strongly correlated to factor 1 and a change any of them would subsequently lead to a change in factor 1.

Table 2: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.272	31.806	31.806	1.272	31.806	31.806
2	1.015	25.372	57.179	1.015	25.372	57.179
3	1.008	25.191	82.370	1.008	25.191	82.370
4	.705	17.630	100.000			
Extraction Method: Principal Component Analysis.						

In table above, the researcher used Kaiser Normalization Criterion, which allows for the extraction of components that have an Eigen value greater than 1. In the second column (Eigen value) above, we find the variance on the new factors that were successively extracted. The principal component analysis was used and two factors were extracted. In the third column, Eigen values are expressed as a percent of the total variance. As shown above, factor one account for 31.806 percent of the variance, factor

2 for 25.372 and factor 3 for 25.191 and factor four for 17.630. As expected, the sum of the Eigen values is equal to the number of variables. The third column contains the cumulative variance extracted.

The principal component analysis was used and three factors were extracted. As the table shows, factor one explain 31.806% of the total variation, factor two explain 57.179% of the total variation while factor two 82.370% of the total variation.

Table 3: Component Matrix

	Component		
	1	2	3
Provide one – stop shopping for financial service products	.456	-.366	.733
Non-interest fee income	.557	.682	-.220
Strengthen and retain existing customer relations	-.306	.644	.649
Giving information and advice according to customers' financial needs	.813	-.020	-.016
Extraction Method: Principal Component Analysis.			
a. 3 components extracted.			

The initial component matrix was rotated using Varimax (Variance Maximization) with Kaiser Normalization. The above results allowed the researcher to identify what variables fall under the extracted factors. Each of the four variables was looked at and placed to the extracted factor depending on the percentage of variability; it explained the total variability of the factor. A variable is said to belong to a factor to which it explains more variation than any other factor.

Each number represents the correlation between the item and the un-rotated factor. from the findings in table 3 above, the correlation between 'Provide one - stop shopping for financial service products' and factor 1 is .456, the correlation between 'Non-interest fee income' and a factor 1 is 0.557, the correlation between 'Strengthen and retain existing customer relations' and factor 1is -0.306 and the correlation between 'Giving information and advice according to customers' financial needs'

and factor 1 is 0.813. These findings show that all the four factors were strongly correlated to factor 1 and a change any of them would influence a change in factor one.

The findings also show that the correlation between 'Provide one - stop shopping for financial service products' and factor 2 is -.366, the correlation between 'Non-interest fee income' and a factor 2 is 0.682, the correlation between 'Strengthen and retain existing customer relations' and factor 2 is .644 and the correlation between 'Giving information and advice according to customers' financial needs' and factor 2 is -.020. These findings show that all the four factors were strongly correlated to factor 2 and a change any of them would influence a change in factor two.

The findings also show that the correlation between 'Provide one - stop shopping for financial service products' and factor 3 is .733,

the correlation between 'Non-interest fee income' and a factor 3 is -.220, the correlation between 'Strengthen and retain existing customer relations' and factor 3 is .649 and the correlation between 'Giving information and advice according to customers' financial needs' and factor 3 is -.016. These findings show that all the four factors were strongly correlated to

factor 3 and a change any of them would influence a change in factor 3 except only one variable i.e. 'Giving information and advice according to customers' financial needs'.

Customer Experience & Loyalty in Bancassurance

Table 4: Communalities of factor variance

	Initial	Extraction
Providing wide range of products – banking and insurance	1.000	.458
Simple and standardized insurance products to suit banking needs	1.000	.204
Simple procedures and application forms for insurance products	1.000	.643
Giving information and advice according to customers' financial needs	1.000	.877
Technology for insurance transactions in banks	1.000	.599
Fair treatment of all customers irrespective of insurance policy value	1.000	.691
Post-sales servicing – renewals, information on lapsation	1.000	.606
Extraction Method: Principal Component Analysis.		

From the findings as shown by table 4, the correlation between Providing wide range of products - banking and insurance and factor 1 was .458, the correlation between Simple and standardized insurance products to suit banking needs and a factor 1 is .204, the correlation between Simple procedures and application forms for insurance products and factor 1 is .643, the correlation between Giving information and advice according to customers' financial needs and a factor 1 is .877, the correlation between

Technology for insurance transactions in banks and a factor 1 is .599, the correlation between Fair treatment of all customers irrespective of insurance policy value and a factor 1 is .691 and the correlation between Post-sales servicing - renewals, information on lapsation and between improved operation as a benefit of bank assurance factor 1 is .606. These findings show that all the seven factors were strongly correlated to factor 1.

Table 5: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.513	21.615	21.615	1.513	21.615	21.615
2	1.467	20.957	42.572	1.467	20.957	42.572
3	1.097	15.677	58.248	1.097	15.677	58.248
4	.999	14.265	72.513			
5	.761	10.873	83.386			
6	.673	9.614	93.000			
7	.490	7.000	100.000			
Extraction Method: Principal Component Analysis.						

As shown above, factor one account for 21.615 percent of the variance, factor 2 for 20.957, factor 3 for 15.677, factor 4 for 14.265, factor 5 for 10.873, factor 6 for 9.614 and factor 7 for 7.000. As expected, the sum of the Eigen values is equal to the number of variables. The principal component analysis was used and one factor was extracted. As the table shows the factor explain 61.993% of the total variation.

The principal component analysis was used and three factors were extracted. As the table shows, factor one explain 21.615 of the total variation, factor two explain 42.572 of the total variation while factor two 58.248 of the total variation.

Table 6: Component Matrix[a]

	Component		
	1	2	3
Providing wide range of products – banking and insurance	-.183	.651	.030
Simple and standardized insurance products to suit banking needs	.351	.182	.220
Simple procedures and application forms for insurance products	.773	.038	-.208
Giving information and advice according to customers' financial needs	-.216	.001	.911
Technology for insurance transactions in banks	.581	-.491	.144
Fair treatment of all customers irrespective of insurance policy value	.610	.445	.348
Post-sales servicing – renewals, information on lapsation	-.053	-.755	.181
Extraction Method: Principal Component Analysis.			
a. 3 components extracted.			

The above results allowed the researcher to identify what variables fall under the extracted factors. Each of the four variables was looked at and placed to the extracted factor depending on the percentage of variability; it explained the total variability of the factor. A variable is said to belong to a factor to which it explains more variation than any other factor.

Each number represents the correlation between the item and the un-rotated factor. from the findings in table 6 above, the correlation between Providing wide range of products – banking and insurance and factor 1 is -.183, the correlation between Simple and standardized insurance products to suit banking needs and a factor 1 is .351, the correlation between Simple procedures and application forms for insurance products and a factor 1 is .773, the correlation between Giving information and advice according to customers' financial needs and

factor 1 is -.216 , the correlation between Technology for insurance transactions in banks and factor 1 is .581, the correlation between Fair treatment of all customers irrespective of insurance policy value and factor 1is .610, and the correlation between Post-sales servicing - renewals, information on lapsation and factor 1 is -.053. These findings show that all the seven factors were strongly correlated to factor 1 and a change any of them would influence a change in factor one.

The findings also show that the correlation between 'Providing wide range of products - banking and insurance' and factor 2 is .651, the correlation between 'Simple and standardized insurance products to suit banking needs' and a factor 2 is .182, the correlation between 'Simple procedures and application forms for insurance products' and factor 2 is .038, the correlation between 'Giving information and advice

according to customers' financial needs' and factor 2 is .001, the correlation between 'Giving information and advice according to customers' financial needs' and factor 2 is .001, the correlation between 'Technology for insurance transactions in banks' and factor 2 is -.491, the correlation between 'Fair treatment of all customers irrespective of insurance policy value' and factor 2 is .445, and 'Post-sales servicing - renewals, information on lapsation' and factor 2 is -.755. These findings show that all the seven factors were strongly correlated to factor 2 and a change any of them would influence a change in factor two.

The findings also show that the correlation between 'Providing wide range of products - banking and insurance' and factor 3 is .030, the correlation between 'Simple and standardized

insurance products to suit banking needs' and a factor 3 is .220, the correlation between 'Simple procedures and application forms for insurance products' and factor 3 is -.208 the correlation between 'Giving information and advice according to customers' financial needs' and factor 3 is .911, the correlation between 'Technology for insurance transactions in banks' and factor 3 is .144, the correlation between 'Fair treatment of all customers irrespective of insurance policy value' and factor 3 is .348, and the correlation between 'Post-sales servicing - renewals, information on lapsation' and factor 3 is .181. These findings show that all the seven factors were strongly correlated to factor 3 and a change any of them would influence a change in factor 3 except only one variable i.e. 'Post-sales servicing - renewals, information on lapsation'.

Advantages to banks from bancassurance

Table 7: Communalities of factor variance

	Initial	Extraction
Additional fee-based income from insurance company	1.000	.720
Economies of scope by having a range of products to sell	1.000	.682
Enhancing customer experience and loyalty	1.000	.449
Diversifying towards becoming a financial supermarket	1.000	.495
Increasing brand visibility	1.000	.269
Extraction Method: Principal Component Analysis.		

From the findings as shown by table 7, the correlation between Additional fee-based income from insurance company and factor 1 was .720, the correlation between Economies of scope by having a range of products to sell and a factor 1 is .682, the correlation between Enhancing customer experience and loyalty and

factor 1 is .449, the correlation between Diversifying towards becoming a financial supermarket and factor 1 is .495 and the correlation between Increasing brand visibility and factor 1 is .269. These findings show that all the five factors were strongly correlated to factor 1.

Table 8: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.389	27.775	27.775	1.389	27.775	27.775
2	1.226	24.514	52.290	1.226	24.514	52.290
3	.957	19.133	71.423			
4	.878	17.551	88.974			
5	.551	11.026	100.000			
Extraction Method: Principal Component Analysis.						

As shown above, factor one account for 27.775 percent of the variance, factor 2 for 24.514 factors 3 for 19.133, factor 4 for 17.551 and factor five for 11.026. As expected, the sum of the Eigen values is equal to the number of variables.

The principal component analysis was used and one factor was extracted. As the table shows factor one explain 27.775% of the total variation while factor two explains 52.290% of the total variance.

Table 9: Component Matrix[a]

	Component	
	1	2
Additional fee-based income from insurance company	.848	.037
Economies of scope by having a range of products to sell	-.463	.684
Enhancing customer experience and loyalty	.109	.661
Diversifying towards becoming a financial supermarket	.659	.246
Increasing brand visibility	.101	.509
Extraction Method: Principal Component Analysis.		
a. 2 components extracted.		

From the findings in table 9 above, the correlation between Additional fee-based income from insurance company and factor 1 is .848, the correlation between Economies of scope by having a range of products to sell and a factor 1 is -.463, the correlation between Enhancing customer experience and loyalty and factor 1 is .109, the correlation between Diversifying towards becoming a financial supermarket and factor 1 is .659 and the correlation between Increasing brand visibility and factor 1 is .101. These findings show that all the five factors were strongly correlated to factor 1 and a change any of them would influence a change in factor one.

The findings also show that the correlation between Additional fee-based income from insurance company and factor 2 is .037, the correlation between Economies of scope by having a range of products to sell and a factor 2 is .684, the correlation between Enhancing customer experience and loyalty and factor 2 is .661, the correlation between Diversifying towards becoming a financial supermarket and factor 2 is .246 and the correlation between Increasing brand visibility and factor 2 is .509. These findings show that all the five factors were strongly correlated to factor 2 and a change any of them would influence a change in factor 2.

Long term drivers of Bancassurance with respect to their impact on the future growth of Bancassurance

Table 10: Communalities of factor variance

	Initial	Extraction
Favorable regulatory changes	1.000	.660
Additional source of income to banks in the face of narrowing margins	1.000	.490
Low insurance penetration in India – untapped by other insurance distribution channels	1.000	.690
Opportunity to diversify and optimize bank activities and products	1.000	.569
Tax benefits on long term savings products (of which life insurance is one)	1.000	.662
Insurers getting access to banks' client base, thus improving their sales	1.000	.708
Extraction Method: Principal Component Analysis.		

From the findings as shown by table 10, the correlation between Favorable regulatory changes and factor 1 was .660, the correlation between Additional source of income to banks in the face of narrowing margins and a factor 1 is .490, the correlation between Low insurance penetration in India - untapped by other insurance distribution channels and factor 1 is .690, the correlation between Opportunity to diversify and optimize bank activities and products and factor 1 is .569, the correlation between Tax benefits on long term savings products (of which life insurance is one) and factor 1 is .662 and the correlation between Insurers getting access to banks' client base, thus improving their sales and factor 1 is .708. These findings show that all the six factors were strongly correlated to factor 1.

Table 11: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.420	23.663	23.663	1.420	23.663	23.663
2	1.213	20.212	43.875	1.213	20.212	43.875
3	1.147	19.116	62.991	1.147	19.116	62.991
4	.904	15.062	78.053			
5	.745	12.412	90.465			
6	.572	9.535	100.000			
Extraction Method: Principal Component Analysis.						

As shown above, factor one account for 23.663 percent of the variance, factor 2 for 20.212, factor 3 for 19.116, factor 4 for 15.062, factor 5 for 12.412 and factor 6 for 9.535. As expected, the sum of the Eigen values is equal to the number of variables.

The principal component analysis was used and one factor was extracted. As the table shows factor one explain 23.663% of the total variation, factor 2 explains 43.875% of the total variance while factor 3 explains 62.991% of the total variance.

Table 12: Component Matrix[a]

	Component		
	1	2	3
Favorable regulatory changes	.178	.793	.012
Additional source of income to banks in the face of narrowing margins	.540	.424	.139
Low insurance penetration in India – untapped by other insurance distribution channels	.721	-.042	.411
Opportunity to diversify and optimize bank activities and products	-.552	.055	.511
Tax benefits on long term savings products (of which life insurance is one)	.441	-.619	.290
Insurers getting access to banks' client base, thus improving their sales	.280	-.128	-.783
Extraction Method: Principal Component Analysis.			
a. 3 components extracted.			

The findings show that the correlation between Favorable regulatory changes and factor 1 is .178, the correlation between Additional source of income to banks in the face of narrowing margins and a factor 1 is .540, the correlation between Low insurance penetration in India - untapped by other insurance distribution channels and factor 1 is .721, the correlation between Opportunity to diversify and optimize bank activities and products and factor 1 is -.552, the correlation between Tax benefits on long term savings products (of which life insurance is one) and factor 1 is .441, and the correlation between Insurers getting access to banks' client base, thus improving their sales and factor 1 is .280. These findings show that all the six factors were strongly correlated to factor 1 and a change any of them would influence a change in factor one.

The findings also show that the correlation between Favorable regulatory changes and factor 2 is .793, the correlation between Additional source of income to banks in the face of narrowing margins and a factor 2 is .424, the correlation between Low insurance penetration in India - untapped by other insurance distribution channels and factor 1 is -.042, the correlation between Opportunity to diversify and optimize bank activities and products and factor 1 is .055, the correlation between Tax

benefits on long term savings products (of which life insurance is one) and factor 1 is -.619 and the correlation between Insurers getting access to banks' client base, thus improving their sales and factor 1 is -.128. These findings show that all the six factors were strongly correlated to factor two and a change any of them would influence a change in factor two.

The findings also show that the correlation between 'Favorable regulatory changes' and factor 3 is .012, the correlation between 'Additional source of income to banks in the face of narrowing margins' and a factor 3 is .139, the correlation between 'Low insurance penetration in India - untapped by other insurance distribution channels' and factor 3 is .411, the correlation between 'Opportunity to diversify and optimize bank activities and products' and factor 3 is .511, the correlation between 'Technology for insurance transactions in banks' and factor 3 is .144, the correlation between 'Tax benefits on long term savings products (of which life insurance is one)' and factor 3 is .290, and the correlation between 'Insurers getting access to banks' client base, thus improving their sales' and factor 3 is -.783. These findings show that all the six factors were strongly correlated to factor 3 and a change any of them would influence a change in factor 3 except only one variable i.e.

'Giving information and advice according to customers' financial needs'.

Responses of Employees of banks on Bancassurance Alliance in bank based on levels of management

Senior and middle level employees have full information regarding Bancassurance Alliance in bank. On the other hand Lower level employees were not aware of Bancassurance Alliance (Table 13)

Table 13: Responses of Employees of banks on Bancassurance Alliance in bank on the basis of levels of management

Options	Senior Management	Middle Management	Lower Management
Yes	25	45	20
No	--	--	10
Total	25	45	30

Responses of Employees of banks on number of insurance companies - bank tie ups

Senior and Middle level Employees have full information regarding number of insurance companies' bank has tied up with. They know

that their banks have alliance with more than one Insurance agency. On the other hand Lower level Employees were not aware of number of insurance companies that the bank has tied up with.

Table 14: Responses of Employees of banks on number of insurance companies' bank tied up

Options	Senior Management	Middle Management	Lower Management
One	--	--	12
More	25	45	18
Total	25	45	30

Table 15: Responses of Bank Employees on advice yourself, or pass on your lead

Options	Senior Management	Middle Management	Lower Management
Advice yourself	25	45	17
Pass it on	--	--	13
Total	25	45	30

Most of the senior and middle level employees advice their customers instead of passing the lead whereas lower level Bank employees try to pass it on to others(13 out of 30 lower level management employees pass their lead to others) in absence of knowledge of products.

Table 16: Responses of Employees of banks on requirements of Bancassurance in bank

Options	Senior Management		Middle Management		Lower Management	
	Yes	No	Yes	No	Yes	No
IDRA License	25	0	45	-	30	-
Advice and Follow up by banks	23	2	41	4	18	12
Treat Bancassurance as Primary/ Core Product	8	22	27	18	13	17
Mis-selling Check/ redressal mechanism	22	3	38	7	21	9
Force-sell policy to its customers	0	25	8	37	6	24
Post Sales Services	25	0	45	0	30	0

All of the Bank employees know that their banks have taken IRDA License. Advice and follow up by banks is one of the major requirements according to senior level and middle level Bank employees. Not all levels of Bank employees treat Bancassurance as their core product. Generally, Banks have mis-selling Check/ redressal mechanism and post sales service for Bancassurance products. Senior level Bank employees donot think that Banks force-sell policy to its customers rather they try to mold according to the customers' needs which are well known to them in comparison to middle and lower level employees who do not bother about customers' needs and sell the policies that have more incentives attached.

Table 17: Responses of Employees of Banks on Types of Policy Mainly Sold in Branch

Options	Senior Management	Middle Management	Lower Management
Life insurance Policy	18	29	16
Non-Life insurance Policy	6	16	14

General view of various levels of Bank employees' is that Life insurance policies are sold more successfully through banks instead of Non-Life insurance policies. Sixty-three out of 100 Bank employees in survey believe that generally Life insurance Policies are opted by customers through banks in comparison to Non-Life insurance Policies, which are sold by Insurance Companies.

Table 18: Opinion count of various employees of different management cadre in a bank

Options	Senior Management	Middle Management	Lower Management
Commission/fee from the insurance company	23	21	17
Selling support from the insurance company	21	24	18

Availability of different types of products with the insurance company	22	28	21
Proximity to customer	20	30	7
Choice of customer	24	42	18

Commission /fee from the Insurance Company is recommend by senior level employees as a major factor while factors like- Selling support from the insurance company, Availability of different types of products with the Insurance Company, Proximity of customers and Choice of customer are recommended by middle level employees.

Table 19: Ways of Spreading Awareness about Bancassurance Among Customers by Banks

Options	Senior Management	Middle Management	Lower Management
Advertisements in different media	23	33	17
Published material in branches	21	37	15
Information by bank employees	24	41	25
Information by insurance company employees in banks	20	31	20
Direct mail	23	13	--
Word of Mouth	16	42	21

Most of the customers trust Information by bank employees as they feel that bank employees understand their needs better than Insurance agents. All levels of bank employees are in favor of this that Information provided by bank employeesis the best way of spreading awareness about bancassurance among customers by banks.

Table 20: Importance of Enhancing Customer Experience and Loyalty in Bancassurance by Banks

Ways of enhancing customer experience	Senior Management	Middle Management	Lower Management
Providing wide range of products – banking and insurance	21	36	21
Simple and standardized insurance products to suit banking needs	0	31	19
Simple procedures and application forms for insurance products	19	35	17
Giving information and advice according to customers' financial needs	23	33	23
Technology for insurance transactions in banks – premium payment by e-banking and information through ATMs	21	39	24
Fair treatment of all customers irrespective of insurance policy value	21	41	22
Post-sales servicing – renewals, information on lapsation	17	24	11

Senior level Bank Employees believe that for enhancing customer experience and loyalty in bancassurance, Bank employees should give information and advice best suited to customers' financial needs.

Middle level Bank Employees accept Fair treatment of all customers irrespective of insurance policy value is the best way for enhancing customer experience and loyalty in bancassurance.

Lower level Bank employees consider technology for insurance transactions in banks – premium payment by e-banking and information through ATMs is the core requirement for enhancing customer experience and loyalty in bancassurance

Table 21: Importance of following purposes that banks seek to attain from bancassurance

Purposes that banks seek to attain from Bancassurance	Senior Management	Middle Management	Lower Management
Additional fee-based income from insurance company	17	25	--
Economies of scope by having a range of products to sell	15	34	--
Enhancing customer experience and loyalty	14	23	--
Diversifying towards becoming a financial supermarket	18	37	--
Increasing brand visibility	11	27	--

The main purpose that banks seek to attain from Bancassurance is diversifying towards becoming a financial supermarket, a kind of one stop shop of financial solution for customers. Senior and middle level Bank employees are of same view regarding this. On the other hand, lower level Bank employees were silent on this.

Table 22: Importance of following long-term drivers of bancassurance with respect to their impact on the future growth of bancassurance in banks

Impact on the future growth of bancassurance	Senior Management	Middle Management	Lower Management
Favorable regulatory changes	21	34	21
Additional source of income to banks in the face of narrowing margins	19	24	11
Low insurance penetration in India – untapped by other insurance distribution channels	18	33	13
Opportunity to diversify and optimize bank activities and products	22	21	14
Tax benefits on long term savings products (of which life insurance is one)	23	27	17
Insurers getting access to banks' client base, thus improving their sales	17	24	11

Favorable regulatory changes and tax benefits on long-term savings products are the major long-term drivers of bancassurance with respect to their impact on the future growth of bancassurance in banks. All levels of Bank employees believe that these factors can have favorable impact on the future growth of bancassurance.

Table 23: Growth of bancassurance in India

Factors	Senior Management	Middle Management	Lower Management
Irrelevant	0	0	0
Poor	3	7	8
Satisfactory	11	20	11
Good	9	13	9
Excellent	2	5	2
Total	25	45	30

As far as Growth of bancassurance in India is considered maximum Bank, employees state that it has been satisfactory. Bancassurance is paving way to success in India. Soon there will be a wave of Bancassurance in India.

Table 24: Mean and Standard Deviation On the basis of Level of Management

Level of Management	Descriptive	Customer Experience & Loyalty	Attainment	Expertise & Trust	Long Term Drivers	Growth	Training	Incentives	Targets	Results Orientation	Deposits	Individual Goals	Return on Investment	Work Stress	Customer Satisfaction	Customer Trust	Position	Success
Top Level Management	Mean	3.64	3.76	4	4	3.4	3.96	3.96	3.32	3.68	3.04	4.08	4	2.56	4.44	4.44	3.76	3.48
	Std. Deviation	0.638	0.97	0.707	0.764	0.816	0.841	0.735	0.802	0.9	1.02	0.702	0.764	0.961	0.507	0.583	0.779	0.963
Middle Level Management	Mean	3.87	3.82	3.91	4.02	3.36	4.24	4.02	3.56	3.36	3.8	3.93	4	2.67	4.16	4.44	3.62	3.29
	Std. Deviation	0.894	0.684	0.701	0.753	0.883	0.679	0.723	0.893	1.069	1.16	0.688	0.769	0.879	0.706	0.586	0.984	1.058
Lower Level Management	Mean	3.67	3.67	3.7	3.9	3.07	4.23	4.47	3.63	3.9	3.83	3.5	4.1	2.37	4.17	4.43	3.7	3.43
	Std. Deviation	0.922	0.844	0.75	0.923	0.98	0.679	0.571	0.809	0.712	0.531	0.974	0.803	0.85	0.699	0.568	0.837	1.104
Total	Mean	3.75	3.76	3.87	3.98	3.28	3.3	3.4	3.52	3.9	3.91	4.07	4.03	2.55	4.23	4.44	3.68	4.17
	Std. Deviation	0.845	0.806	0.72	0.804	0.9	1.068	1.005	0.847	0.772	0.683	0.946	0.771	0.892	0.664	0.574	0.886	0.697

The analysis of this table indicates that the average level of agreement on the reasons Expertise & Trust, Long Term Drivers, Training, Incentives, Individual Goals, Return on Investment, Customer Satisfaction & Customer Trust. The mean of these factors lie between 3.96 and 4.44 according to senior level Bank employees. Middle level Bank employees also accept these factors along with lower level Bank employees. The mean of these factors lie

between 3.91 and 4.44 according to middle level Bank employees. Lower level Bank employees also accept same factors with a mean score 3.91 to 4.44.

Senior level bank employees believe that these factors are having less impact according to Standard deviations calculated Attainment, Results-Orientation, Deposits, Work Stress & Success. The S.D. lies between 0.984to 1.16.

Middle level bank employees assume Results-Orientation, Deposits, Position & Success as the less impacting factors. The S.D. lies between 0.922 and 1.04.

Lower level bank employees accept the same factors as Senior level Bank employees along with Customer Experience & Loyalty. The S.D. lies between 0.922 and 1.04.

Overall impact of Bancassurance

Table 25: Communalities of factor variance

	Initial	Extraction
Provision of Special training for Bancassurance products	1.000	.634
Extra Incentives for selling Bancassurance products	1.000	.456
Higher targets for Bancassurance products	1.000	.578
In bank, employees are becoming more resultoriented	1.000	.647
There is an increase in the overall deposits of my bank.	1.000	.486
Employees of bank are able to attain their individual goals	1.000	.430
Return on investment has increasedwith the introduction of Bancassurance	1.000	.509
Employees feel like leaving the organisation because of work stress	1.000	.562
Increase in level of Customer Satisfaction	1.000	.553
Customer trust Banks as "One Stop" financial alternative	1.000	.444
Extraction Method: Principal Component Analysis.		

From the findings as shown by table 25, the correlation between Provision of Special training for Bancassurance products and factor 1 was .634, the correlation between Extra Incentives for selling Bancassurance products and a factor 1 is .456, the correlation between Higher targets for Bancassurance products and factor 1 is .578, the correlation between In bank, employees are becoming more result-oriented and factor 1 is .647, the correlation between There is an increase in the overall deposits of my bank and factor 1 is .486, the correlation between Employees of bank are able to attain their individual goals and factor 1 is .430, the correlation between Return on investment has increased with the introduction of Bancassurance and factor 1 is .509, the correlation between Employees feel like leaving the organization because of work stress and factor 1 is .562, the correlation between Increase in level of Customer Satisfaction and factor 1 is .553and the correlation between Customer trust Banks as "One Stop" financial alternative and factor 1 is .444. These findings show that all the three factors were strongly correlated to factor 1.

Table 26: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.516	15.164	15.164	1.516	15.164	15.164
2	1.431	14.308	29.472	1.431	14.308	29.472
3	1.279	12.788	42.260	1.279	12.788	42.260
4	1.074	10.745	53.005	1.074	10.745	53.005
5	.972	9.723	62.728			
6	.893	8.929	71.658			
7	.832	8.315	79.973			
8	.725	7.255	87.228			
9	.684	6.843	94.071			
10	.593	5.929	100.000			
Extraction Method: Principal Component Analysis.						

As shown above, factor 1 accounts for 15.164 percent of the variance, factor 2 for 14.308, factor 3 for 12.788, factor 4 for 10.745, factor 5 for 9.723, factor 6 for 8.929, factor 7 for 8.315, factor 8 for 7.255, factor 9 for 6.843 and factor 10 for 5.929. As expected, the sum of the Eigen values is equal to the number of variables.

The principal component analysis was used and one factor was extracted. As the table shows factor one explain 15.164% of the total variation, factor 2 explains 29.472% of the total variance, factor 3 explains 42.260% of the total variance while factor 4 explains 53.005% of the total variance.

Table 27: Component Matrix[a]

	Component			
	1	2	3	4
Provision of Special training for Bancassurance products	.657	.088	-.049	-.438
Extra Incentives for selling Bancassurance products	-.408	.209	-.351	.351
Higher targets for Bancassurance products	.423	.306	.379	.402
In bank, employees are becoming more resultoriented	.441	.177	.293	.579
There is an increase in the overall deposits of my bank	-.206	.103	.650	-.106
Employees of bank are able to attain their individual goals	.305	-.113	-.544	.169
Return on investment has increased with the introduction of Bancassurance	-.524	.481	-.034	.041
Employees feel like leaving the organisation because of work stress	-.338	-.557	.232	.290
Increase in level of Customer Satsfaction	-.135	.641	.173	-.308
Customer trust Banks as "One Stop" financial alternative	-.049	-.527	.348	-.207
Extraction Method: Principal Component Analysis.				
a. 4 components extracted.				

The findings show that the correlation between Provision of Special training for Bancassurance products and factor 1 is .657, the correlation between Extra Incentives for selling Bancassurance products and a factor 1 is -.408, the correlation between Higher targets for Bancassurance products and factor 1 is .423, the correlation between In bank, employees are becoming more result-oriented and factor 1 is .441, the correlation between There is an increase in the overall deposits of my bank and factor 1 is -.206, the correlation between Employees of bank are able to attain their individual goals and factor 1 is .305, the correlation between Higher targets for Bancassurance products and factor 1 is .423, the correlation between Return on investment has increased with the introduction of Bancassurance and factor 1 is -.524, the correlation between Employees feel like leaving the organization because of work stress and factor 1 is -.338, the correlation between Increase in level of Customer Satisfaction and factor 1 is -.135 and the correlation between Customer trust Banks as "One Stop" financial alternative and factor 1 is -.049. These findings show that all the ten factors were strongly correlated to factor 1 and a change any of them would influence a change in factor one.

The outcome of research is that the correlation between Provision of Special training for Bancassurance products and factor 2 is .088, the correlation between Extra Incentives for selling Bancassurance products and a factor 2 is .209, the correlation between Higher targets for Bancassurance products and factor 2 is .306, the correlation between In bank, employees are becoming more result-oriented and factor 2 is .177, the correlation between There is an increase in the overall deposits of my bank and factor 2 is .103, the correlation between Employees of bank are able to attain their individual goals and factor 2 is -.113, the correlation between Return on investment has increased with the introduction of Bancassurance and factor 2 is .481, the correlation between Employees feel like leaving the organization because of work stress and factor 2 is -.557, the correlation between Increase in level of Customer Satisfaction and factor 2 is .641 and the correlation between Customer trust Banks as "One Stop" financial alternative and factor 2 is -.527. These findings show that all the ten factors were strongly correlated to factor two and a change any of them would influence a change in factor two.

The findings show that the correlation between between Provision of Special training for Bancassurance products and factor 3 is -.049, the correlation between Extra Incentives for selling Bancassurance products and a factor 3 is -.351, the correlation between Higher targets for Bancassurance products and factor 3 is .379, the correlation between In bank, employees are becoming more result-oriented and factor 3 is .293, the correlation between There is an increase in the overall deposits of my bank and factor 3 is .650, the correlation between Employees of bank are able to attain their individual goals and factor 3 is -.544, the correlation between Return on investment has increased with the introduction of Bancassurance and factor 3 is -.034, the correlation between Employees feel like leaving the organization because of work stress and factor 3 is .232, the correlation between Increase in level of Customer Satisfaction and factor 3 is .173, and the correlation between Customer trust Banks as "One Stop" financial alternative and factor 3 is .348. These findings show that all the ten factors were strongly correlated to factor 1 and a change any of them would influence a change in factor one.

The findings also show that the correlation between Provision of Special training for Bancassurance products and factor 4 is -.438, the correlation between Extra Incentives for selling Bancassurance products and a factor 4 is .351, the correlation between Higher targets for Bancassurance products and factor 4 is .402, the correlation between In bank, employees are becoming more result-oriented and factor 4 is .579, the correlation between There is an increase in the

overall deposits of my bank and factor 4 is -.106, the correlation between Employees of bank are able to attain their individual goals and factor 4 is .169, the correlation between Return on investment has increased with the introduction of Bancassurance and factor 4 is .041, the correlation between Employees feel like leaving the organization because of work stress and factor 4 is .290, the correlation between Increase in level of Customer Satisfaction and factor 4 is -.308, the correlation between Customer trust Banks as "One Stop" financial alternative and factor 4 is -.207. These findings show that all the ten factors were strongly correlated to factor four and a change any of them would influence a change in factor four except.

Conclusion

Bancassurance has already been in force in some form or the other. For example, banks have already been selling personal accident and baggage insurance directly to their credit card members as a value addition to their products. Banks have also been distributing the mortgage- linked insurance products like fire and motor vehicle insurance to their customers. Most of these have been a part of additional benefits with the existing services and products. They, however, are yet to use their information and database on saving habits of customers to generate the leads for insurance business. Harnessing the potential requires that the banks develop competencies in using their database effectively. In addition to training in selling, the Bank employees need support in analytics. They need to integrate insurance products in their core products. In bancassurance, given the entities involved and the training requirements, the product choice portfolio has to be kept simple and limited to maybe ten products. The main objective behind this limit is to speed up the training process of the front line sales personnel with the new products. The Bank employees at senior level are more motivated

towards Bancassurance in relation to middle andlower level employees. Bank Employees need to work on certain preliminaries before entering into this channel of distribution.

References

- Aggarwal, Vineet "Bancassurance Concept, Framework & Implementation" IRDA Journal, Vol No. XXX, July - December 2004.
- Agrawal & Hajela, "Bancassurance - A Challenging Convergence in Indian prospective" IJRIME Volume1, Issue4 ISSN-2249- 1619:21-32.
- Annual Reports of Insurance Regulatory and Development Authority of India (IRDA), Available: www.irdaindia.org.
- Arora, Abhiruchi, and Manish Jain. "An Analysis on Contribution of Bancassurance on Financial Performance of Bank of India." Journal of Economics and Sustainable Development 4.6 (2013): 24-35.
- Karunagaran, Bancassurance: A Feasible Strategy for Banks in India? Reserve Bank of India Occasional Papers Vol. 27, No. 3, Winter 2006.
- Krishnamurthy, R. (2003) "Bancassurance in India," paper presented at the CEO Summit of Swiss Reinsurance Company.
- Barua, Abheek, (2004), Bancassurance - New Concept Catching Up Fast in India. The Chartered Accountant, 1348 - 1351.
- C. Barathi, C. D. Balaji & CH. Ibohal Meitei "Innovative strategies to catalyze growth of Indian Life insurance sector-an analytical review" Indian Journal of Commerce & Management Studies, Vol–II, Issue 4, May 2011
- Chatley, Pooja, and Dr Liaqat Ali. "Bank Intrusion Into Life Insurance Sales: A Performance Based Comparative Study Of Leading Life Insurance Companies In India." International Journal of Applied Financial Management Perspectives 2.4 (2014): 709-713.
- Chen, Zhian, and Jianzhong Tan. "Does bancassurance add value for banks?–Evidence from mergers and acquisitions between European banks and insurance companies." Research in

International Business and Finance 25.1 (2011): 104-112.A

- Chiang Ku Fan1, Hung-Chih Lai2, and Wen-Chin Lu3" An Evaluation of Key Factors for Bancassurance Success" International Journal of Application or Innovation in Engineering & Management (IJAIEM) Volume 2, Issue 12, December 2013 ISSN 2319 – 4847

- Karunanithi, G., and S. K. Kannan. "Evaluation of the Financial Performance of State Bank of India." RIJBFA Radix International Journal Of Banking, Finance And Accounting Volume 1, Issue 9 (September2012) ISSN:2277-100X

- Kumari, T. Hymavathi, and Beana Ceilina Dorthy. "Performance Evaluation of Bancassurance--A Study on SBI Life Insurance Company." International Journal of Social Sciences Arts and Humanities Vol.1 No.3. 2014. Pp. 29-39

- Singhal, Ajai Kumar and Singh, Rohit, Bancassurance: Leveraging on the Synergy between Banking and Insurance Industry. IUP Journal of Risk & Insurance, Vol. 7, Nos. 1 & 2, pp. 28-37, January & April 2010. Available at SSRN: http://ssrn.com/abstract=1594043

- Sinha, Tapen. "Bancassurance in India: Who is tying the knot and why." Available at SSRN 715203 (2005).

Stock Markets Integration: Examining volatility between Indian and International Stock Markets

Shalu Juneja*

Ravi Kumar Gupta**

Abstract

The present study is being contemplated with the objective of studying volatility between Indian and International stock market. In this study, daily closing stock prices of all ordinaries, CAC40, FTSE 100, Heng Seng, SSE, Nikkei225, NYSE, STI, US S&P 100 and BSE 30 have been selected over the period from 02/01/1991 to 29/07/2011. The sample of this study consists of over 5200 observations. In order to see the sharp changes on the volatility, the full data is divided into three sub periods covering 02/01/1991 to 31/10/1997, 1/11/1997 to 30/09/04, 01/10/04 to 29/07/11. A significant contribution of this study is to evaluate volatility using Standard Deviation, Skewness, Kurtosis and Jarque Bera test in period 1, period2, period3 individually , and then also in the total period. To check the stationarity, the study uses Unit Root Test.

Keywords: Volatility, Standard Deviation, Skewness, Kutosis, Unit Root Test.

Introduction

Volatility can be described as anything that is changeable. The more the variable fluctuates over a period of time, more volatile the variable. Volatility indicates how much and how quickly the price of an asset changes. For example, the price a of small stock tends to rise and fall more sharply over shorter period of time, than the price of a large cap blue-chip stocks. Hence, small cap stocks are perceived to be as more volatile. The volatility of a stock relative to the overall market is known as its beta, and the volatility triggered by internal factors,

*Assistant Professor, Hindu Institute of Management and Technology, Rohtak.

**Professor, Vaish College of Engineering, Rohtak.

regardless of the market, is known as stock's alpha. High volatility may be explained, as a condition of market disruption wherein securities are not being priced fairly and the capital market is not functioning well.

Volatility may be described as a phenomenon, which characterizes changeableness of a variable under consideration. Volatility is associated with unpredictability and uncertainty. In literature on stock market, the term is synonymous with risk, and hence high volatility is thought of as a symptom of market disruption, whereby, securities are not being priced fairly and the capital market not functioning as well as it should be. As a concept, volatility is simple and intuitive. It measures the variability or dispersion about a central tendency. However, there are some subtleties that make volatility challenging to analyse and implement. Since volatility is a standard measure of financial vulnerability, it plays a key role in assessing the risk/return tradeoffs.

In this paper, the Researcher has tried to examine the pattern of volatility using closing prices of Indian equity market with other emerging and developed markets from 02/01/1991 to 29/07/2011. Methods and data description are also presented in this paper with discussion on findings of the study. In the final section a brief summary of the paper has been given.

Why study Volatility?

Economic growth is essential for improving the quality of life. Standard classical and neo-classical theories emphasize the role of investment in enhancing economic growth. Monetary and financial sectors play a key role in mobilizing resources. Financial stability is crucial for promoting investment. In a situation of financial stability, financial institutions and markets are able to efficiently mobilize savings, provide liquidity and allocate investment. The

growing role of the financial sector in the efficient allocation of resources at appropriate prices could significantly enhance the efficiency with which our economy functions. If financial markets work well, they will direct resources to their most productive uses. Risks will be more accurately priced and will be borne by those who have appetite for absorbing risks. Real economic activity with higher investments, in both quantity as well as quality, would result in growth with macroeconomic stability and fewer financial uncertainties. A stable financial system facilitates efficient transmission of monetary policy initiatives.

Review of Literature

There are few studies which examined the volatility between Indian and international stock markets.

Bala and Premaratne (2004) investigate *volatility co-movement* between the Singapore stock market and the markets of US, UK, Hong Kong and Japan. The empirical results of this study indicate that there is a high degree of volatility co-movement between Singapore stock market and that of Hong Kong, US, Japan and UK. The results of the study support significant volatility spillover from Singapore into Hong Kong, Japan and US markets despite the latter three being dominant markets. This study evinces that it is plausible for volatility to spill over from the smaller market to the dominant market.

Kaur (2004) investigates the nature and characteristics of stock market volatility in Indian stock market during 1993-2003 in terms of its time varying nature, presence of certain characteristics such as volatility clustering, day-of-the-week effect and calendar month effect. The study also explores whether there exists any spillover effect between the domestic and the US stock markets. This study shows that asymmetrical GARCH models outperform the

conventional OLS models and symmetrical GARH models. In this study, there is mixed evidence of return and volatility spillover between the US and the Indian markets. While S&P 500 exhibits significant positive correlation only with Nifty returns, NASDAQ returns exhibit significant albeit weak positive correlation only with Sensex.

Shin Jaeun (2005) examines the relationship between expected stock returns and conditional volatility in 14 emerging international stock markets. Using both a parametric and a flexible semiparametric GARCH in mean model, this study finds that a positive relationship prevails for the majority of the emerging markets, while such a relationship is insignificant in most cases. In this study, there are 6 Latin American emerging markets (Argentina, Brazil, Chile, Colombia, Mexico, and Venezuela), 6 Asian emerging markets (India, Korea, Malaysia, Philippines, Taiwan, and Thailand), and two European emerging markets (Turkey and Greece). The sample period of this study is from January 1989 to May 2003, after the 1987 international stock market crash. Daily data has been converted into weekly observations to address the potential auto correlation problem, yielding a total of 750 weekly observations. The basic finding of this study is largely consistent with the literature using a parametric GARCH-M model, where the existence of a weak relationship between risk and return is documented.

Karmakar (2005) estimates conditional volatility models in an effort to capture the salient features of stock market volatility in India. The estimation of GARH model to predict the time-varying volatility of daily returns; the estimation of GARCH model; and, subsequently the evaluation of its forecasting accuracy are made at micro level on two major indices namely, S&P CNX Nifty and BSE Sensex. It is observed that GARCH model has been fitted for almost all

companies. The various GARCH models provide good forecasts of volatility and are useful for portfolio allocation, performance measurement, option valuation etc. Investors seeking to avoid risk, for example, may choose to adjust their portfolios by reducing their commitments to assets whose volatilities are predicted to increase or by using more sophisticated dynamic diversification approaches to hedge predicted volatility increase. Because of the high growth of the economy and increasing interest of foreign investors towards the country, it is important to understand the pattern of stock market volatility to India which is time varying, persistent and predictable.

Mukherjee (2007) captures the trends, similarities and patterns in the activities and movements of the Indian Stock Market in comparison to its international counterparts. It covers New York Stock Exchange (NYSE), Hong Kong Stock exchange (HSE), Tokyo Stock exchange (TSE), Russian Stock exchange (RSE), Korean Stock exchange (KSE) from various socio-politico-economic backgrounds. Both, the Bombay Stock exchange (BSE) and the National Stock Exchange of Indian Limited (NSE), have been used in the study as a part of Indian Stock Market. The time period has been divided into various eras to test the correlation between the various exchanges to prove that the Indian markets have become more integrated with its global counterparts and its reaction are in tandem with that seen globally. It is validated that in the later time periods, the influence of other stock markets increases on BSE or NSE, but at a very low almost insignificant level. It can be safely said that the markets do react to global cues, and any happening in the global scenario, be it macroeconomic or country specific, affect the various markets.

Mukherjee and Mishra (2007) try to relate to how Indian equity market responds to the equity

price movements of other countries and vice-versa. It analyses daily closing prices of all the major equity indices from a sample of 23 countries, including India. This study assesses the co-movement of prices among the markets over a period of 16 years (starting from 1990 to 2005). As far as the unidirectional feedback measures are concerned, though most of the measures for the whole study period are found to be significant, only few annual measures exhibit statistical significance.

Leon (2008) studies the relationship between expected stock market returns and volatility in the regional stock market of the West African Economic and Monetary Union called the BRVM. Using weekly returns over the period 04/01/ 1999 to 29/07/2005 and, an EGARCH-in-Mean model assuming normally distributed and Student's distribution for error terms, the study reveals that:
1)   Expected stock return has a positive but not statistically significant relationship with expected volatility.
2)   Volatility is higher during market booms than when market declines.

Siddiqui (2009) discusses that, in recent years, globalization, economic assimilation and integration among countries and their financial markets have increased interdependency among major world stock markets. This increased interdependency among the worldwide stock markets may have impacts on the global investors for their assets allocation decision, and on the economic policies of economies for ensuring economic stability. It examines the relationships between the selected Asian and the US stock markets over a period 19/10/1999 to 25/04/2008, using daily closing data of twelve stock markets. Results show that stock markets under study are integrated. The degree of correlation between the markets (except that of Japan), varies between moderate to very high. Furthermore, it provided that no

stock market is playing a very dominant role in influencing other markets. It is expected that the results will be useful for the global investors in managing their international portfolios.

Kumar and Dhankar (2009) examine the cross-correlation in stock returns of South Asian stock markets, their regional integration, and interdependence on global stock market. The study uses Bombay stock exchange listed BSE 100 for India, Colombo stock exchange listed Milanka Price Index for Sri Lanka, Karachi stock exchange listed KSE 100 for Pakistan, Dhaka stock exchange listed DSE-General Index for Bangladesh, and S & P Global 1200 to represent the global market. The research methodology applied in the study includes application of Ljung-Box to examine the cross-correlation in stock returns; ARCH and its generalized models for the estimation of conditional and asymmetric volatilities; Ljung-Box as a diagnostic testing of fitted models; and finally, Correlation to examine the interdependency of these markets in terms of stock returns and expected. The mean returns clearly indicate in this study that these markets have offered higher returns to the investors as compared to the global stock market.

Singh & Singh (2010) examine the linkages of the two leading emerging markets i.e. Chinese and Indian market with developed markets. Using daily data from January 2000 to December 2009, the stock market indices of China, India, United States, United Kingdom, Japan and Hong Kong are examined. Correlation test, Granger causality and the co-integration test applying error correction model has been applied for calculating linkages. The study found that Chinese and Indian markets are both correlated with all four major markets. Both markets have at least had a unilateral causality with all four developed markets. This study concludes that both Chinese and Indian markets are correlated with all four developed markets

under study, namely U.S., U.K., Japan and Hong Kong. The result of this study further confirmed with the analysis of Granger causality that both Chinese and Indian markets have at least had unilateral causality with all four developed markets.

Sheu1 and Cheng (2011) discuss the properties of the U.S and the three Chinese stock markets - Taiwan, Hong Kong and China, and explore the returns and volatility spillover effect of the U.S and the three Chinese stock markets. Data of these four stock markets was collected from January 1997 through December 2009, and then was spilt into two sub-periods: 1996-2005 and 2006-2009. This research first used generalized auto regressive conditional heteroskedastic (GARCH) model to discuss the volatility transmission effect among these four stock markets for the entire period from 1997 through 2009, and then employed both vector autoregressive (VAR) model and the multivariate generalized autoregressive conditional heteroskedastic (MGARCH) model for two sub-periods 1996-2005 and 2006-2009 respectively, to examine the influence degree of China and U.S. stock markets on Taiwan's and Hong Kong's during two separate sub-periods.

Nupur (2012) discusses in her paper the correlation of Indian Stock market with five other major Asian economies: Japan, Hong Kong, Indonesia, Malaysia and Korea. The paper finds non normality feature in the stock return distribution of the six economies of Asia including India. In this paper, the correlation of stock returns of India with five other Asian countries is found out. The second part of this study shows the stock returns of the six Asian countries that is analysed for a period over five years from Jan 2005- Dec 2009. In this study, the Indian markets showed features of platykurtic distribution. The volatility of its weekly returns were similar to other Asian counterparts.

Mulyadi and Anwar (2012) find out the relation between Indonesia stock market with USA and Japan stock market in this paper. In this research there will be two terminologies on volatility, contemporaneous volatility spillover and dynamic volatility spillover. Contemporaneous volatility spillover is volatility spillover in the very same day. This study developed the following hypothesis:
First hypothesis: There is volatility spillover between Indonesia capital market with USA and Japan capital market.

Second hypothesis: There is bidirectional volatility spillover between Indonesia capital market with USA and Japan capital market.

The results of this study is that both contemporaneous volatility spillover and dynamic volatility spillover from USA capital market are significant in 1%.

Patel et. al. (2012) investigates the weak form of market efficiency of four selected Asian stock markets. The researchers have taken a daily closing price of stock markets under the study from the 01/01/ 2000 to 31/03/ 2011.They has also divided full sample in three interval periods, and have applied various test like Runs Test, Unit Root Test, Variance Ratio, Auto Correlation and other tests. BSE Sensex has given the highest mean returns to the investor followed by SSE Composite and HANGSENG. BSE Sensex could be considered as high risk markets as it has reported the highest Standard Deviation. In this study the Runs Test indicated BSE Sensex and NIKKEI markets are weak form inefficient whereas HANSENG and SSE Composite hold weak form of efficiency.

Jeyanthi Queensly (2012) examines whether the BRIC stock markets are interrelated after the financial crisis. This study contributes to the knowledge of investors and market

practitioners to be well aware of the risks attached with investments in BRIC countries. The data on BRIC stock market indices (BVSP index for Brazil, RTS. RS for Russia, NIFTY index for India, and SSEC index for China) were obtained in this study. The study used daily data for the period April 2000-March 2010. The daily data have more than 2000 observations for each market. The analysis of this study has been conducted for sample period 2000 – 2010, for 2000 - 2007 and 2007- 2010. Bidirectional relationship exists in this study between India and Brazil, and India and China throughout the study period. But the degree of causality was very high in the post crisis period.

Islam et al. (2014) compare the volatility of price between Dhaka stock exchange (DSE) and Chittagong Stock Exchange (CSE). The main objective of the study is to know about the security and volatility of Bangladesh markets. It also compares the volatility of two security markets. Both statistical and graphical approach is used in this study. To compare the volatility of the DSE and the CSE in this study, Standard Deviation of general price index, DSE20 and CSE30 has been considered. In this study, F test has been used to test whether there is variation between these two stock markets.

Methodology

Sample:
The present study is based on secondary data related to daily closing prices of various stock indices of various global markets over the period from 02/01/1991 to 29/07/2011. Our sample consists over 5200 observations. In order to see the impact of the sharp changes on the volatility modeling, the full data is divided into three sub – periods. The first sub period covers 02/01/1991 to 31/10/1997; the second sub - period ranges from 1/11/1997 to 30/09/04; and, third sub - period covers 01/10/04 to 29/07/11. So, the results will be presented separately in four periods. Table 1 shows the general stock indices of the countries used for the present study. The data is taken from Yahoo Finance.

Country	Index
Australia	All observation
France	CAC 40
UK	FTSE 100
Hong Kong	HENG SENG
China	SSE
Japan	NKKEI 225
USA	NYSE
Singapore	STI
USA	US S&P100
India	BSE 30

Earlier studies on linkages between Indian and International stock markets have shown that volatility pattern in International markets is significantly different from Indian markets. In this study, an attempt is made to examine volatility behavior across markets.

The study begins by analyzing the time series of volatility. Standard Deviation is used as proxy for variability of stock prices.

Hypothesis
To address the objective of the study and after a review of literature, the following hypotheses are formulated and put on test using collected data.

Ho1: Stock markets closing prices are not normally distributed
Ho2: Existence of Unit Root (non stationary) in stock markets.

Following methods/tools are used to test stationarity of time series between the stock markets using E views 5.1.

- The Jarque-Bera test is used to test whether prices of stock markets follow the normal probability distribution.
- Testing for stationary (unit root test) is done by using Augmented Dickey – Fuller test.

Analysis of Empirical results

Descriptive Statistics

Table 2a, 2b, 2c and 2d provide summary statistics about index prices, namely sample means, medians, maximums, minimums, standard deviation, skewness, kurtosis, and Jarque- Bera in period 1, period 2, period 3 and total period respectively.

It is noted from table 2a, that Standard Deviation in Heng Seng is highest, thus showing the highest volatility during the period 1. Rest of all indices are found to be least volatile during the period under consideration. It is further noted that all indices shows positive skewness except SSE. The values of skewness and kurtosis shown in the table also suggest that stock prices are not normally distributed. Jarque Bera test also indicate about not normal distribution.

In table 2b, standard deviation of Nikkei 225 is highest, thus it shows highest volatility in period 2. Skewness is maximum of NYSE in this period. The results shows that stock prices are not normally distributed. Table 2c shows the result of period 3. In this period Bse 30 is more volatile because the standard deviation is highest of this indices in this period. Skewness and Kurtosis are not normally distributed in this period. Jarque Bera test is also explains this statement.

Table 2a: Characteristics of Distributions of the stock indices under study in Period 1

	All observation	CAC 40	FTSE 100	HENG SENG	SSE	NKKEI 225	NYSE	STI	US S&P100	BSE 30
Mean	503.8039	2039.703	3245.765	8602.166	720.2794	19793.26	3052.883	1918.814	506.3396	3110.092
Median	428.265	1952.15	3095.2	9025.7	717.075	19840	2705.13	2063.6	428.77	3316.19
Maximum	946.37	3094	5330.8	16673.3	1536.82	27147	5437.12	2493.7	946.37	4630.54
Minimum	292.11	1441	2054.8	3223	105.77	14309	1981.52	1149.1	324.49	956.11
Std. Dev.	157.8125	311.9211	703.9872	3223.174	335.9421	2535.478	819.2538	353.302	157.2214	870.7077
Skewness	1.184102	1.534159	0.829475	0.201582	-0.061001	0.591503	1.150197	-0.401026	1.190051	-0.665726
Kurtosis	3.341148	5.077789	3.121199	2.233241	2.393095	3.306071	3.380022	1.720087	3.324869	2.663293
Jarque-Bera	412.661	977.2449	205.6659	52.31335	28.29423	103.9007	386.8782	161.6987	410.6619	118.9053
Probability	0	0	0	0	0.000001	0	0	0	0	0
Sum	871580.8	3483813	5790446	14391424	1276335	33054746	5214324	3263903	864828	4705570
Sum Sq. Dev.	4.31E+07	1.66E+08	8.84E+08	1.74E+10	2.00E+08	1.07E+10	1.15E+09	2.12E+08	42194611	1.15E+09
Observations	1730	1708	1784	1673	1772	1670	1708	1701	1708	1513

Table 2b: Characteristics of Distributions of the stock indices under study in Period 2

	All observation	CAC 40	FTSE 100	HENG SENG	SSE	NKKEI 225	NYSE	STI	US S&P100	BSE 30
Mean	591.8584	4287.224	5301.962	11962.47	1566.326	13296.32	6127.297	1684.378	591.8584	3962.817
Median	561.58	4083.245	5317.45	11597.72	1524.83	13174.89	6239.77	1686.96	561.58	3681.16
Maximum	926.98	6922.33	6930.2	18301.69	2242.42	20833.21	7164.55	2582.94	926.98	6194.11

Minimum	392.69	2403.04	3287	6660.42	1059.87	7607.88	4452.49	805.04	392.69	2600.12
Std. Dev.	110.5758	1097.437	905.6278	2469.313	286.2286	3295.361	625.98	324.5466	110.5758	855.3885
Skewness	0.557441	0.63925	-0.192681	0.48693	0.461037	0.206229	-0.600758	-0.159848	0.557441	0.684928
Kurtosis	2.425955	2.365497	1.70478	2.536811	2.472913	1.877355	2.41287	2.634722	2.425955	2.368122
Jarque-Bera	113.809	148.7122	137.2617	82.76315	84.79116	101.2046	129.4329	17.05399	113.809	163.8559
Probability	0	0	0	0	0	0	0	0.000198	0	0
Sum	1028058	7511216	9564739	20431901	2825652	22577150	10643114	2925765	1028058	6847748
Sum Sq. Dev.	21226068	2.11E+09	1.48E+09	1.04E+10	1.48E+08	1.84E+10	6.80E+08	1.83E+08	21226068	1.26E+09
Observations	1737	1752	1804	1708	1804	1698	1737	1737	1737	1728

Table 2c: Characteristics of Distributions of the stock indices under study in Period 3

	All observation	CAC 40	FTSE 100	HENG SENG	SSE	NKKEI 225	NYSE	STI	US S&P100	BSE 30
Mean	564.8562	4356.406	5490.967	19309.03	2554.546	12539.09	7795.257	2698.426	564.8562	13626.67
Median	572.53	4096.62	5602.3	20128.99	2649.815	11584.01	7776.56	2745.31	572.53	14248.66
Maximum	729.79	6168.15	6732.4	31638.22	6092.06	18261.98	10311.61	3875.77	729.79	21004.96
Minimum	322.13	2519.29	3512.1	11015.84	1011.5	7054.98	4226.31	1456.95	322.13	5581.49
Std. Dev.	80.49126	839.3133	689.2063	4133.71	1126.199	3036.764	1252.649	517.3014	80.49126	4326.698
Skewness	-0.39365	0.300746	-0.515215	0.163401	0.755239	0.341116	-0.218861	-0.133851	-0.39365	-0.25462
Kurtosis	2.958427	2.145748	2.616871	2.245993	3.332417	1.754595	2.683794	2.287596	2.958427	1.842889
Jarque-Bera	44.54591	79.63687	89.68636	48.25766	173.8218	140.5651	20.89707	41.72531	44.54591	113.1415
Probability	0	0	0	0	0	0	0.000029	0	0	0
Sum	971552.6	7628067	9779412	33114982	4455129	20977899	13407843	4665579	971552.6	23151705
Sum Sq. Dev.	11137130	1.23E+09	8.46E+08	2.93E+10	2.21E+09	1.54E+10	2.70E+09	4.62E+08	11137130	3.18E+10
Observations	1720	1751	1781	1715	1744	1673	1720	1729	1720	1699

Table 2d: Characteristics of Distributions of the stock indices under study in Period 4

	All observation	CAC 40	FTSE 100	HENG SENG	SSE	NKKEI 225	NYSE	STI	US S&P100	BSE 30
Mean	3296.078	3573.805	4681.43	13287.64	1608.48	15227.85	5650.024	2100.88	553.536	7025.308
Median	3112.05	3646.43	4863.5	12493.83	1390.44	15795.47	6081.38	2068.7	552.92	4131.9
Maximum	6853.6	6922.33	6930.2	31638.22	6092.06	27147	10311.61	3875.77	946.37	21004.96
Minimum	1204.5	1441	2054.8	2984	105.77	7054.98	1807.79	805.04	292.11	956.11
Std. Dev.	1298.449	1349.74	1276.493	5613.902	1018.753	4425.066	2180.959	595.5919	126.1077	5467.332
Skewness	0.601049	0.298345	-0.263789	0.510424	1.396542	0.193139	-0.082514	0.59207	0.507804	1.137208
Kurtosis	2.575015	2.113681	1.837843	2.747139	5.563016	2.176076	2.020216	2.828161	2.941166	2.810228
Jarque-Bera	353.3079	247.8702	364.409	235.8697	3185.431	174.5828	213.3611	308.2366	223.672	1072.182
Probability	0	0	0	0	0	0	0	0	0	0
Sum	17192341	18623097	25134597	68006120	8557116	77052897	29306675	10855247	2871191	34705024

Sum Sq. Dev.	8.79E+09	9.49E+09	8.75E+09	1.61E+11	5.52E+09	9.91E+10	2.47E+10	1.83E+09	82473752	1.48E+11
Observations	5216	5211	5369	5118	5320	5060	5187	5167	5187	4940

Unit Root Test

A Unit Root Test is used to test a time series for stationarity. The most appropriate and widely used test is Augmented Dickey- fuller (ADF) test. This test uses the existence of a unit root as the null hypotheses. The ADF test statistics reported in the table rejects the hypothesis of a unit root in the return series at 1% level of significance. The results of this test in all periods confirm that the series are non stationary. So, the study concludes that the Null Hypotheses about the existence of a unit root cannot be rejected for all variables using intercept terms in the test equation at the level form.

Table 3a: Augmented Dickey- fuller (ADF) test for period 1

Symbol	Max lag	Level			First difference		
		Lag length	Adf stat	P-value	Lag length	Adf stat	P-value
All observation	24	0	-1.856302	0.3534	0	-39.49648	0
CAC 40	24	0	-1.21616	0.6696	0	-40.87269	0
FTSE 100	24	1	-0.005455	0.957	0	-39.4422	0
HENG SENG	24	3	-1.641441	0.4611	2	-20.29306	0
SSE	24	0	-2.105998	0.2424	0	-40.40193	0
NKKEI 225	24	0	-2.256649	0.1865	0	-42.36433	0
NYSE	24	0	1.19029	0.9982	0	-40.65904	0
STI	24	1	-1.969794	0.3004	0	-37.26936	0
US S&P100	24	0	0.971352	0.9964	0	-43.00541	0
BSE 30	23	5	-2.531736	0.1081	4	-15.52365	0

Table 3b: Augmented Dickey- fuller (ADF) test for period 2

Symbol	Max lag	Level			First difference		
		Lag length	Adf stat	P-value	Lag length	Adf stat	P-value
All observation	24	0	-1.856302	0.3534	0	-41.86694	0
CAC 40	24	0	-1.584059	0.4906	0	-41.13138	0
FTSE 100	24	3	-1.239259	0.6594	2	-27.96533	0
HENG SENG	24	1	-1.88603	0.3392	0	-38.63518	0
SSE	24	0	-1.791356	0.3852		-41.9354	0
NKKEI 225	24	0	-1.393541	0.5869	1	-31.75277	0
NYSE	24	0	-2.424422	0.1351	0	-40.2961	0
STI	24	1	-1.713938	0.424	0	-36.55638	0
US S&P100	24	0	-3.201267	0.0201	0	-42.54471	0
BSE 30	24	0	-1.204175	0.6748	0	-39.69684	0

Table 3c: Augmented Dickey- fuller (ADF) test for period 3

Symbol	Max lag	Level				First difference		
		Lag length	Adf stat	P-value		Lag length	Adf stat	P-value
All observation	24	0	-1.795091	0.3833		0	-43.30369	0.0001
CAC 40	24	1	-1.364489	0.6011		0	-44.96881	0.0001
FTSE 100	24	1	-2.060897	0.2609		0	-45.3958	0.0001
HENG SENG	24	0	-1.916598	0.3248		0	-43.07176	0
SSE	24	0	-1.291404	0.6356		0	-41.46296	0
NKKEI 225	24	0	-1.162424	0.6926		0	-42.23657	0
NYSE	24	2	-1.573229	0.4961		1	-32.97056	0
STI	24	0	-1.522551	0.5221		0	-41.49908	0
US S&P100	24	2	-1.405505	0.581		1	-34.49695	0
BSE 30	24	1	-1.693685	0.4343		0	-38.20596	0

Table 3d: Augmented Dickey- fuller (ADF) test for total period

Symbol	Max lag	Level				First difference		
		Lag length	Adf stat	P-value		Lag length	Adf stat	P-value
All observation	32	0	-1.385648	0.5909		0	-74.32275	0.0001
CAC 40	32	0	-1.826807	0.3678		2	-45.23367	0.0001
FTSE 100	32	6	-1.923593	0.3216		5	-33.15843	0
HENG SENG	32	0	-1.662855	0.4502		0	-72.01647	0.0001
SSE	32	4	-1.697369	0.4326		3	-33.34744	0
NKKEI 225	32	0	-2.147035	0.2263		1	-53.34603	0.0001
NYSE	32	2	-1.469847	0.5491		1	-55.15139	0.0001
STI	32	1	-1.549417	0.5085		0	-67.91721	0.0001
US S&P100	32	0	-3.014069	0.0337		1	-54.12417	0.0001
BSE 30	31	1	-0.318923	0.9198		0	-65.03257	0.0001

Conclusion

The study addresses the volatility of Indian and International stock markets. A significant contribution of this study is to evaluate volatility using Standard Deviation, Skewness, Kurtosis and Jarque Bera test in period 1, period 2, period 3 and the total period. To check the stationarity, the study uses Unit Root Test. The results show that the the data of closing prices in different stock markets are not normally distributed. The Null Hypothesis about the existence of a unit root cannot be rejected in all periods in this study.

References

- Bala Lakshmi, and Gamini Premaratne. (2004), "Stock Market Volatility: Examining North America, Europe and Asia." Far Eastern Meeting of the Econometric Society. No. 479. 2004.

- Gupta, Nupur, and Vijay Agarwal.(2012), "Comparative Study of Distribution of Indian Stock Market with Other Asian Markets." International Journal of Enterprise Computing and Business Systems 1.2 (2012): 13-34.
- Islam, Md Ariful, Md Rayhan Islam, and Mahmudul Hasan Siddiqui, "Stock market volatility: comparison between Dhaka stock exchange and Chittagong stock exchange."
- Karmakar, M. (2005), "Modelling Conditional Volatility of the Indian Stock Markets", Vikalpa-The Journal of Decision Makers, Vol. 30, pp. 21-37.
- Kaur, H. (2004), "Time Varying Volatility in the Indian Stock Market", Vikalpa-The Journal of Decision Makers, Vol. 29, pp.25-42.
- Kumar, R. and R. S. Dhankar (2009), "Asymmetric Volatility and Cross Correlations in Stock Returns under Risk and Uncertainty", Vikalpa-The Journal of Decision Makers, Vol. 34, pp.25-36.
- Leon, N. K. (2008), "An Empirical Study of the Relation Between Stock Market Returns and Volatility in the BRVM", International Research Journal of Finance and Economics, Vol. 14.
- Mukherjee, D. (2007), "Comparative Analysis of India Stock Market with International Markets", Great Lakes Herald, Vol. 1, pp.40-69.
- Mukherjee, K. and R. K. Mishra (2007), "International Stock Markets Integration and its Economic Determinants: A study of Indian and World Equity Markets", Vikalpa-The Journal of Decision Makers, Vol. 32, pp.29-44.
- Mulyadi, Martin Surya, and Yunita Anwar (2012), "Analysis of volatility spillover in Indonesia, USA and Japan capital market." African Journal of Business Management 6.27 (2012): 8227-8234.
- Patel, Nikunj R., Nitesh Radadia, and Juhi Dhawan (2012), "An empirical study on weak-form of market efficiency of selected Asian stock markets." Journal of Applied Finance & Banking 2.2 (2012): 98-148.
- Queensly B. J., Jeyanthi, (2012), "Are the BRIC Equity Markets More Interdependent After the Global Financial Crisis?" indiastat.com May-June, 2012 pp1-9.
- Sheu, Her-Jiun, and Chien-Ling Cheng (2011), "A study of US and Chinas volatility spillover effects on Hong Kong and Taiwan." African Journal of Business Management 5.13 (2011): 5232-5240.
- Shin, Jaeun (2005), "Stock returns and volatility in emerging stock markets." International Journal of Business and Economics 4.1 (2005): 31-43.
- Siddiqui, S. (2009), "Stock Markets Integration: Examining Linkages Between Selected World Markets", Vision-The Journal of Business Perspective, Vol. 11. Pp.19-30.
- Singh, Gurcharan Singh Pritam (2010), "Chinese and Indian Stock Market Linkages with Developed Stock Markets." Asian Journal of Finance & Accounting 2.2 (2010).

Management Thought

Cougar Motorsport is an organisation that brings together the experience of motor sport competitors, officials and event management specialists. Started in April 2009, Cougar Motorsport has successfully conceptualized and executed 67 events till date. All founders are high-ranking professionals with large organisations who have experienced first-hand the added dimension that motorsport can bring to executive life. Cougar Motorsport is a registered member of The Federation of Motor Sports Clubs of India (FMSCI), which is the National Sports Federation recognised by the Government of India and also the ASN of the Federation Internationale de l'Automobile (FIA) in India. We interviewed Mr. Udaibhan Singh, Assistant Vice President, Cougar Motorsport. Here are the excerpts from interview:

1. What motivated your organization to venture into motor sports?

Ans. It was in April 2009 when Cougar Motorsport was formed with the aim to cater to driving enthusiast in the country. We found that no other company was catering to the Elite class who always wanted to rally but never had the time to do so.we entered the market and provided them with tailor made solution.

2. Cougar Motorsports is in the area of motor rallies, what innovative solutions you provide?

Ans. We have pioneered the concept of self-driving in the country and have chosen the terrain which has international appeal i.e. Himalayas, Thar desert, western Ghats...

We have a TSD rally known as the Desert Dash wherein you get to experience the rally format and at the same time enjoy the superior hospitality.

We provide an end to end participation package, right from arranging the participants stay in the best and most luxurious accommodations en route to offering service support as well as providing medical back up because of which participants don't have to make any preparation themselves.

3. According to you what role motor sports can play in Indian tourism?

Ans. There was a time when people used to hire taxi for local commute during vacation now the time is changing and they want to be in their own car and travel. This gives rise to self-drive expedition. Similarly events like Dakar rally, Camel Trophy, etc are globally renowned. We are trying to replicate similar events to give rise to tourism.

4. At Cougar Motorsports what is the role of creativity and innovation?

Ans. We love to experiment with different concepts in organizing an event, like The Delhi Dash for a social cause -a car rally that featured blind navigators helping a crew of visioned members. It gives us an opportunity to do something for the society through motorsport.

5. What is the vision of your organization?

Ans. The organization was formed with the aim

to bring together the experience of motorsport competitors, officials and event management specialists to create a motorsport and motoring platform for business owners, senior executives, high ranking professionals and other owners of premium vehicles. Our long term goal is to make all the highly rated and beautiful drives in India accessible to our clients by organizing driving expeditions, rallies and other motoring experiences around them.

Apart from organizing interstate rallies, we also organizes event based on various customized formats including geo-caching, TSD rallies, off road events, etc.

6. What is the biggest challenge that Cougar Motorsports faces in scaling up its business?

Ans. Expansion to off-road motoring has brought its own set of problems, like we are trying hard to get sponsors for the RFC event. Also, maintaining a balance between our signature events and RFC is a challenge. Last year, organizing RFC India proved such a humongous task that the company had to skip its annual Desert Dash event. But we are focused on taking the RFC event to the next level. "We want to make it popular, profitable, bigger, better and tougher," he says.

7. Being a start-up what all challenges that your organization faces?

Ans. Reaching out to the target group and communicating the concept without significant marketing spends is quite a task and similarly creating tie-ups with luxury hospitality partners, planning and delivering a quality experience has been the other key challenge.

Distribution Channels for Marketing of Insurance: Trend in Indian Insurance Market

Case Study

M. S. Rawat

Introduction

The insurance sector in India before the year 2000 was controlled by public sector units; life insurance by Life Insurance Corporation of India and non-life insurance by four insurance companies: The New India Assurance Co. Ltd., National Insurance Co. Ltd, Oriental Insurance Co. Ltd. and United India Insurance Co. Ltd., all through General Insurance Corporation of India. The office network of these insurance companies was well established in whole of the country. The pre-liberalization traditional distribution model comprised of personal selling by individual agents tied with a company for retail insurance, under the supervision of Development officer, and Insurance Company executives taking care of corporate sales. The opening up of the industry in the year 2000 saw the entry of private and foreign players. This was followed by severe competition in the market which led to introduction of new distribution channels like corporate agents and brokers. A revised and attractive commission structure was implemented and this facilitated growth of alternative distribution channels other than individual agents and brokers.

With liberalization, the private and foreign players introduced innovative insurance products, and appointed qualified persons as agents or advisors. Deregulation allowed insurance companies operating in India to choose their prices (premiums) freely, which in turn led to ever increasing price war. The insurance companies lined up with the insurance regulator and got approvals for their innovative and new products. They have been aggressively promoting their products and have gone for multi-channel distribution to reach the customers. The product, promotion and place have been dominating the marketing mix as used by the insurance companies. Enhanced competition, technological advancement and noticeable changes in customer preference and behavior prompted many insurers to modify their marketing strategies. All this led to the emergence of newer channels of distribution in the insurance industry. Apart from the well established agency channel, the players have explored alternative channels to reduce the cost viz. direct sale, bancassurance, rural (micro agency) channels and others. Having experience in the international market, foreign partners of the joint venture insurance companies started new distribution channels like partnering, worksite, online marketing, etc. The tremendous growth of the insurance market after opening of the sector shows that the insurance companies used multi channels to reach out to more customers to achieve growth in business at a reduced cost (Annexure 1).

Further the complexities of Indian market-a digital divide, changing demographics and geographical complexities, and stringent regulatory environment - required insurance companies to use multiple strategies for distribution. The estimated penetration of 4 per cent of GDP is not enough and needs to be

Associate Professor, Centre for Insurance and Risk Management, Birla Institute of Management Technology, Greater Noida, India. Email: ms.rawat@bimtech.ac.in.

increased for growth and development of insurance industry. The reach of insurance companies has mostly been confined to cities and far less penetration could be made in the rural areas of the country. This may imply that the prevailing agency-broker led distribution model has proved to be an inhibitor in the growth of insurance in India and a different distribution model is to be applied for rural areas.

There is no universal distribution approach for insurance products. In developed markets, all important traditional and alternate distribution channels are present, but always with different weights and adapted to local requirements. Organizations should develop meaningful customer insights to understand what their customers want, and where and how they will buy.

As per European Insurance Figures, (January, 2013 pp39), in matured market of Europe, insurance sector is a significant employer both in terms of direct and indirect employment. Insurers sell their products directly through their employees and through distance selling or using different distribution channels, such as Agents, Brokers and Bancassurance; also new channels like Internet and Mobile phones are widely used by insurers. During 2009-10, Bancassurance maintained its supremacy in the distribution of life insurance products in most of the European countries except UK where the sale of life insurance was dominated by brokers. Similarly in distribution of non-life insurance products, agents and brokers continue to be major channels. However, channels such as direct writing has become popular in Ireland, France and Australia. Others like internet, online web portals, social media, etc. have also made inroads in the distribution of insurance products due to low cost and high efficiency (European Insurance Figures, January, 2010 pp41-43).

Distribution Channels of Insurance in India

- **Agency (agents) Channel:** Agent is an intermediary between Insurer and the customer to sell the insurance products of a specific insurance company. An agent in India has to be a certified person who represents a specific insurer. In times to come, an agent may be allowed to pitch products of multiple insurance companies. An agent gets commission from the insurance company on successful sale of the insurance product. Agency channel is the biggest channel in Indian Life insurance sector and thus allow the insurers to drastically increase their distribution reach. Since an agent interacts with various clients and prospects regularly, it is expected of him/her to be professional and knowledgeable to enjoy better customer relationship.

- **Brokersor Broking Channel:** Brokers are firms which can sell insurance products of multiple insurers. In India, such an entity is supposed to get a formal broking license issued by IRDA and it facilitates a customer to get best of the insurance products at best price from the market. Brokers are aware of different insurance products of different insurance companies and hence are able to offer their customers a wider range of products to make a choice. Although they work for the customers but the commission is paid by the Insurer whose policy is sold.

- **Corporate Agents Channel:** Like individual agents, a firm or a company which wishes to do insurance business can get a license from IRDA as Corporate Agents. The director and employee of the firm must be professionally qualified. The representatives/employees of these firms sell insurance products. In India, a corporate agent can sell products of one insurer only.

- **Bancassurance Channel:** Banks, as they have huge customer base, have also entered into insurance business as corporate agents. They are in a good position to recommend appropriate insurance products of an insurance company to their clients. Insurance companies have tied up with different banks to get good amount of insurance business. A bank has to choose the insurance company to be associated with and gets commission on the business placed with it.
- **Direct Channels:** With growing awareness through radio, television and advertisements, etc., the customer can directly walk into the office of the Insurance Company or call a marketing executive to purchase an appropriate insurance policy. Again, with the prevalence of internet, today's customers prefer to buy insurance either online or through phone/email channels. To begin with, such customers have been few but as per the trend, a clear growth in the contribution of Direct Channels for simple products is there.

Objectives of the Study

Traditionally insurance has been sold by independent agents supervised by Development officers (employees) of the insurers. With liberalization/opening of insurance sector in India in 2000 private players with or without foreign partners were allowed to enter the insurance market and new distribution channels, corporate agents and brokers also emerged alongside. The entry of more market players led to a scramble for acquiring more customers and developing market share to sustain and grow. Insurers were forced to look for more distribution channels to reach out to more customers to enhance sales, and also not to be dependent on traditional channel of agents only. There is a need to study the perception of the customers towards different channels up till now and in times to come.

1. The case studies the trend of the distribution channels in the insurance sector and growth achieved over a period of time in the recent past.
2. The case further studies the preference of the customers to select traditional channel or alternate channel on the basis of their gender, age and occupation, and also to use technology driven new channels on the same basis; and the factors responsible for the selection of any of the channels.
3. The case also explores the perception of customers about the likely trend of distribution channel in future.
4. The study attempts to suggest a distribution channel management strategy.

Research Methodology

Research is based on primary and secondary data. Primary data has been collected by survey of various customers (insured) through a questionnaire to know the preference of the customers in selection of a distribution channel and likely future trend. The secondary data has been collected through various Annual Reports of Insurance Regulatory and Development Authority of India (IRDA), to study the trend in distribution of insurance in India. The sample size for survey was comprised of the 250 customers of life and non-life insurance companies. The data so collected has been analyzed by using ratio analysis, and hypotheses were tested by Chi-square test. Out of the sample, 124 responses were received and 121 were found correct. Convenience sampling method was used to select the sample. An exploratory research with quantitative approach was conducted.

Data Analysis and Interpretation

1. **Trend in distribution channels:** Today the insurance industry of India is comprised of 52 insurance companies, of which 24 companies are in life insurance business and 28 are in non-life business (IRDA Annual Report, 2012-13 pp19). From the secondary data, it is observed that the trend of growth in insurance business from 2002 to 2013 was almost 5 times (Annexure-1). This massive expansion was made possible by the tremendous efforts put by the tied (individual) agents and new channels of distribution such as corporate agents, Bancassurance, Broker and Direct sales. Table 1 and Table 2 depict channel wise share of new business of life insurance and non-life insurance, respectively.

Table 1: Channel wise share in New Business Premium (Individual & Group) of Life insurance premium: Percentage %

| Insurer | Individual Agents | Corporate Agents | | Brokers | Direct Selling | Total Ind. & Group New Business | Referrals |
		Banks	Others*				
2007-08	72.17	7.28	3.74	1.61	16.81	100	6.96
2008-09	65.45	8.41	4.04	0.99	21.11	100	3.14
2009-10	60.91	8.46	3.56	1.34	25.73	100	2.37
2010-11	53.9	9.81	2.59	1.33	32.36	100	0.69
2011-12	46.64	11.25	2.04	1.28	38.78	100	0.03
2012-13	46.40	11.33	1.54	1.20	39.52	100	0.02

Corporate agents other than banks.

Note:
1) New business premium includes first year premium and single premium.
2) The leads obtained through referral arrangements have been included in the respective channels.

Source: various IRDA Annual Reports (2012-13, pp79; 2011-12 pp84; 2010-11 pp65; 2009-10 pp63; 2008-09 pp47; 2007-08 pp57)

Table 2: Channel wise share in Non-Life insurance business

| Channel wise Gross Direct premium of Non-Life Business | | | | | | | %Percentage share | |
year	Individual agents	Corporate agents	Banks	Brokers	Referral	Direct Business	Others	Total
2009-10	35.7	7.3	8.4	14.7	1.4	31.06	1.45	100
2010-11	31.34	6.06	8.9	19.85	1.26	30.66	1.92	100
2011-12	36.09	2.14	5.64	17.11	0.33	32.01	6.67	100
2012-13	35.74	6.09	2.6	21.39	0.05	28.51	5.61	100

Source: Compiled from various IRDA Annual Reports (2012-13, pp212; 2011-12 pp202; 2010-11 pp156; 2009-10 pp146)

Results:

On examining the historical data of insurance business growth and the share of business contribution made by the distribution channels from Tables 1 and 2, the following trend in distribution channels was observed:

1. Despite the entry of new channels, tied (individual) agency channel has dominated the insurance business contribution all through. The number of life insurance agents has increased from around 8 lakhs in the year 2000-01 (IRDA - Report of Committee on Distribution channel, 2008 pp 4) when the Sector was opened up to private insurers, to roughly 21 lakhs by the end of the year 2012-13. Of the same, the individual agents recruited by the new private life insurers is around 9 lakhs, the remaining 12 lakhs being with the public insurer LIC (IRDA Annual Report, 2012-13 pp76). However, their share of contribution has been gradually decreasing in the overall life insurance business. In non-life insurance, there were 528,179 agents as on 31 March, 2013 and their share of business has remained static in the overall general insurance business during 2009-13.

2. On the life insurance side, the share of the individual (tied) agency channel in the New Individual Business premium procured amounted to 77.53% for the year 2012-13 (IRDA Annual report, 2012-13 pp 78). For New (Individual & Group) business of Life Insurers, it was 46.40% for the same year, as they had very small proportion of group business. In case of non-life insurance business, the share of individual agency channel was 35.74% of Gross Direct premium for the year 2012-13.While the agency channel is still dominant but the direct channel is catching up fast.

3. Corporate agents other than banks are struggling and have a share of 1.54% of New (Individual & Group) business of Life insurers for the year, 2012-13. Similarly in Non-Life insurance, their share is slightly better, i.e., 6.09% of the Gross Direct Premium for the same year.

4. Bancassurance has been doing well in retail life insurance business but not so well in group or corporate insurance business. Their contribution in New Business Premium (Individual & Group) was 11.33% in the year 2012-13.On non-life insurance side, the performance of Banks was not good, i.e., 2.6% of the Gross Direct Premium for the same year.

5. Direct channel has been progressing well. In Life insurance, for the year 2012-13 its contribution was 39.52% of New Business Premium (Individual & Group) of life insurance. However, in Group New Business alone, this channel has performed wonderfully well and contributed 90.66%. In non-life business, the direct channel had contributed well, i.e., 28.51% for the same year. This channel is being preferred by insurers to reduce the cost and have direct customer relationship.

6. The performance of broker- channel is not satisfactory in life insurance; it was 1.20% of the Gross Direct premium in 2012-13. However, in non-life insurance, it was 21.39% of Gross Direct Premium for the same year.

Survey Analysis

A survey was conducted to understand the criteria perceived by the individual customers (retail) in selection of distribution channel in insurance sector. On the basis of preliminary discussions with different customers, it was thought to be appropriate to study the influence of gender, age and occupation of the customer in selection of a channel and also their perception about trend of distribution channel in the future. Out of 121 customer respondents, 89 were males and 32 were females belonging to different age group. Demographic profile is tabulated in Table 3.

Table 3: Demographic Profile of Respondents (121)

Characteristic	Frequency	Percent
Age		
18-25years	46	38%
26-35 years	42	34.71%
Above 35 years	33	27.27%
Occupation		
Service	68	36.67%
Self occupied	04	3.30%
Professionals	20	16.52%
Business	03	2.47%
Others	26	21.48%
Gender		
Male	89	73.55%
Female	32	26.45%
Policies Purchased: 234		
Life Insurance policies	87	37.18%
Pension Policies	08	03.42%
Health/Mediclaim policies	58	24.79%
Motor Policies	67	28.63%
Fire Policies	07	02.99%
Others	07	02.99%

Source: Tabulation of demographic data from the research data collected by author

Analysis of Customers' Perception

234 policies of life and non-life insurance were purchased by 121 respondents from different insurance companies; 37.18% accounted for life insurance policies; 28.63% accounted for motor insurance and 24.79% belonged to Health/Medi-claim policies. A customer had purchased more than one policy and also used more than one channel to purchase those policies. To know the customers' perception about the influence of gender, age and occupation in preferring or selecting a distribution channel, hypotheses were tested by Chi-square test as under with the help of data so collected (Refer Table 3). An analysis is detailed in Table 4. Perceptions for the future are depicted in Table 5.

1. **Influence of Gender of customer on Selection of a channel**
   Null hypothesis: H_o – Gender of customer has no effect on selection of:
   1. Traditional, 2. Alternate and 3. Technology based distributional channels (use).
   Alternate hypothesis: H_1- Gender of the customer affects the selection of: 1. Traditional, 2. Alternate and 3. Technology based distributional channels (use).

2. **Influence of Age of customer on selection of a channel**
   Null hypothesis: H_o – Age of customer has

no effect on selection of: 1. Traditional, 2. Alternate and 3. Technology based distributional channels (use).

Alternate hypothesis: H_1- Age of the customer affects the selection of: 1. Traditional, 2.Alternate and 3. Technology based distributional channels(use).

3. Influence of Occupation of customer on selection of a channel

Null hypothesis: H_o – Occupation of customer has no effect on selection of: 1. Traditional, 2. Alternate and 3. Technology based distributional channels (use).

Alternate hypothesis: H_1- Occupation of the customer affects the choice of: 1. Traditional, 2. Alternate and 3. Technology based distributional channels (use)

Test Statistics: Chi-Square Test was applied to test hypothesis. The test statistics is equal to combined sum of the squared difference between the observed and expected frequencies divided by the expected frequency in each cell of the table, wherein denotes the observed frequency and is the expected value.

Table 4: Chi-square analysis

S.No			Test Value	D.f.	Critical Value	Result
		Gender Wise effect				
1	1.1	Traditional channel	0.78	3	7.81	Null Hypothesis accepted: No effect
	1.2	Alternate Channel	1.78	4	9.49	Null Hypothesis accepted: No effect
	1.3	Use of Technology based Channel	1.56	3	7.81	Null Hypothesis accepted: No effect
		Age wise effect				
2	2.1	Traditional channel	3.97	6	12.592	Null Hypothesis accepted: No effect
	2.2	Alternate Channel	4.31	6	12.592	Null Hypothesis accepted: No Effect
	2.3	Use of Technology based Channel	20.57	6	12.592	Null Hypothesis not accepted: +Effect
		Occupation Wise effect				
3	3.1	Traditional channel	6.64	6	12.592	Null Hypothesis accepted: No effect
	3.2	Alternate Channel	6.46	6	12.592	Null Hypothesis accepted: No effect
	3.3	Use of Technology based Channel	14.42	4	9.488	Null Hypothesis not accepted: +Effect

Source: Chi square test applied on observed data collected by the author
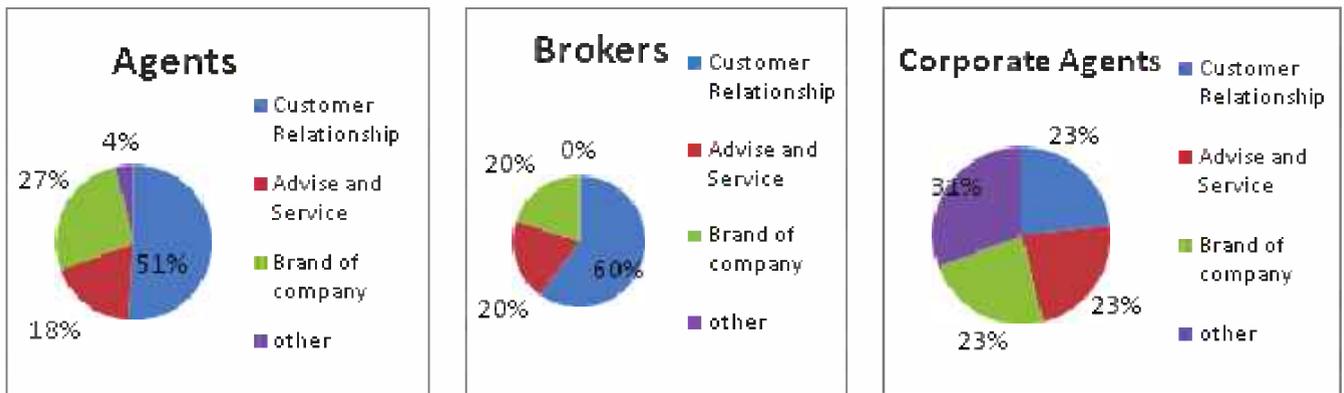
Result:

1. Customers' gender has no preferable influence on selection of either of traditional, alternate or technology based channels. Any of the channels can be used by the customer.

2. In regard to customers' age-wise analysis, age of the customer has no preferable influence on selection of either traditional channel or alternate channel but definitely it has preference for the use of technology based channels. As more customers are in the age group from 18 to 35 years, it shows that these age group customers would like to use technology based channels to know about the product or make comparisons before purchase of insurance.

3. Similar is the case of customers' occupation-wise analysis, there is no influence on selection of either traditional or alternate channel. However, there is preference for use of technology driven channels for purchase of insurance.

It shows that the technology based channel was only influenced in comparison to the traditional and alternate channels. The insurance companies have to strengthen the internet based channels as more and more customers are likely to use internet for either gathering information or purchase of insurance.

2b. Reasons for selection of a specific channel by the customers

Graphic Chart-1.   Traditional channels

Source: Ratio analysis of the data collected by the author
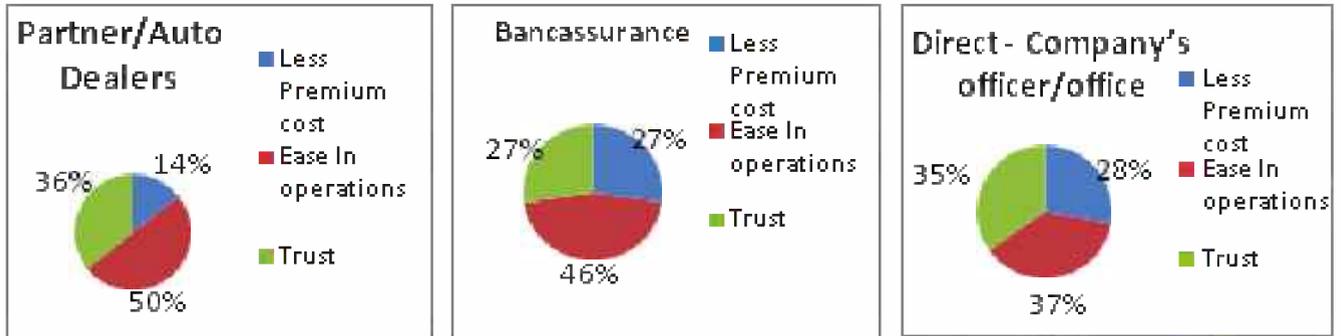
Result:

Customer relationship was found to be dominant criteria for selection of traditional channel.

- **Agents:** Customer relationship between customer and the agent was found to be major criteria to select the services of an Agent channel, which is followed by Brand of the insurance company.

- **Brokers:** Customer relationship was the major criteria to select a Broker channel, followed by Advices and services and Brand of the insurance company.

- **Corporate Agents:** Customer relationship followed by Advices and Brand. However, different reasons may also influence to select this channel.

Graphic Chart -2   Alternate channels

Partner/Auto Dealers
- Less Premium cost
- Ease In operations
- Trust

14%, 36%, 50%

Bancassurance
- Less Premium cost
- Ease In operations
- Trust

27%, 27%, 46%

Direct - Company's officer/office
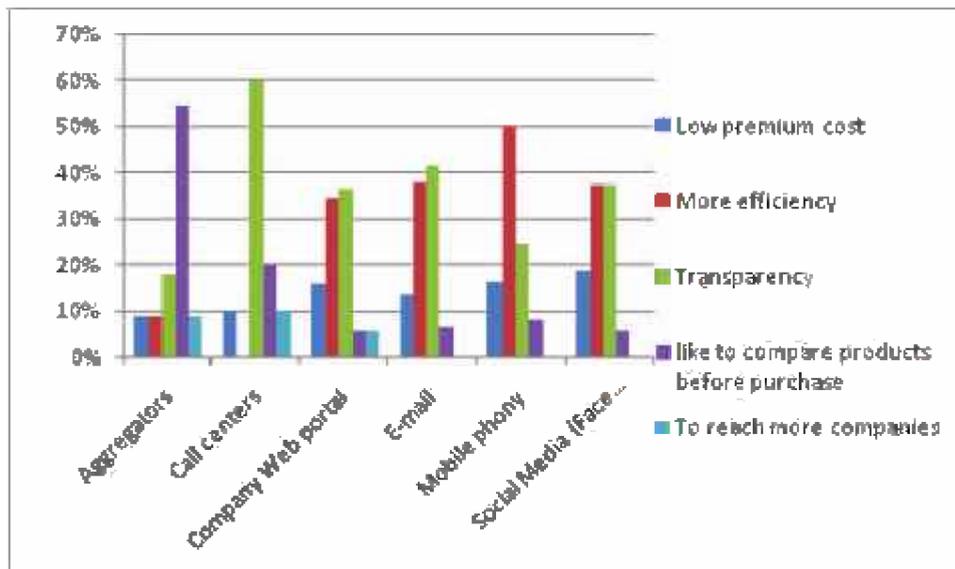- Less Premium cost
- Ease In operations
- Trust

35%, 28%, 37%

Source: Ratio analysis of the data collected by the author

Result:
Ease in operation was found to be very important criteria followed by trust level in selection of alternate channel.

Graphic chart-3   Technology based channel

Source: Ratio analysis on the data collected by the author

Result:
Transparency and efficiency were found be common criteria in different technology driven channels.
- Web portal, e-mail, call centers-Transparency is major criterion, followed by efficiency.

- Aggregator- Comparison of products is a major criterion, followed by transparency.
- Phone- More efficiency is a major criterion, followed by transparency
- Social Media- More efficiency and transparency are major criteria, followed by low cost

Perception of the customers about future trend of use or selection of distribution channels

1. Online/web/mobile channels- Highest proportion of customers, i.e., 89% felt that use of this channel shall increase in future.
2. Social Media- 81% of the customers felt that use of this channel shall increase in future.
3. Direct selling by Insurer- 70% of the customers felt that use of this channel shall increase in future.
4. Bank/Partners-Dealers/NBFC- 68% of the customers felt that use of this channel shall increase in future.
5. Call centers / Aggregators- 66% of the customers felt that use of this channel shall increase in future.
6. Traditional-Agents/Brokers- 47% of the customers felt that use of this channel shall increase in future and 53% felt that its use shall decline.

Table 5: Perception of future trend in distribution channel

S.No.	Channel	Perception about future Trend			■ Increase ■ Decrease
		increase	Reduce	Total	
1	Direct by Insurer	85	36	121	30% 70%
2	Online/web/mobile	107	14	121	11% 89%
3	Call centre/ aggregator	80	41	121	34% 66%
4	Social media	99	22	121	19% 81%
5	Bank/dealer/ NBFC, etc.	83	38	121	32% 68%
6	Traditional-Agents/Broker	57	64	121	53% 47%

Source: Analysis of the data collected by the Author

Result:

The use of distribution channel by Insurers is likely to-

- Increase or be positive for- Direct channel, Technology based channels and Banks/ Partners-auto dealers/NBFCs.
- Be Negative for- Traditional channels, Agents/Brokersas the use may gradually decrease.

Summary of Findings:

- Agency channel is the oldest and dominant distribution channel in the retail insurance business. The gradual rise of other channels Brokers, Bancassurance, Direct sale, internet sale, etc. has led to phenomenal increase in insurance business in India. Brokers and Direct sale channels have been doing well for corporate and group insurance business. But the proportion or share of Agency channel in Indian insurance business market has been gradually declining.

- As per Customers' perception for selection of a distribution channels, Customers' gender has no effect on selection of any of the channels to purchase insurance product. Customers' Age and occupation had positive effect on the use of the Technology based channels, but no effect on selection of either Traditional or Alternate channels. All the traditional as well as alternate channels were used by the customers for purchase of insurance products without any significant variation. This also shows that all the channels would coexist in the insurance market of India.

- Customer relationship and Service level; Transparency and efficiency; Ease in operation and Trust level were the paramount reasons for selection of Traditional, Alternate and Technology based distribution channels respectively.

- In regard to the perception of the customers about the trend for use of various distribution channels in the future, customers would like to increase the use of Technology based channels, like Online/ Web/Mobile and Social media followed by Direct sale channel of the Insurer, Banks/Partner- auto dealers/ NBFCs, and Call centers/Aggregators. However, the customers perceived that the use of traditional channels may decline gradually in future.

Need for Multi channel distribution Strategy

Insurers have traditionally aligned themselves to models that are inherently conventional in their approach - individual agents, banks, corporate agents and insurance brokers, instead of giving importance to either the customer or product segmentation. In fact, while many insurers have built customer relationship databases, the data itself is not mined or tracked to increase the positive interactions with the customer. This has resulted in lower persistency levels (poor customer loyalty) and even resulted in customers avoiding face-to-face interactions with insurance agents. Persistency was long ignored by the insurance companies when the growth in new business premium was high. However, with the growth slowing down, focus on retention of customers/policies has gained focus.

The utility of a distribution channel shall depend upon the behavior, preferences, values and tastes of the customer segment targeted to for selling of insurance products. There has to be different distribution channel mix for different markets or segments in different regions, of the same country. As per the study, the important factors that influence the customers' selection of a channel are based on- Customer relationship and Brand of Insurer; Transparency and efficiency in service; Ease in operation and Trust

level. The distribution channels will have to meet these parameters to survive for a long time in the market.

Increased competition and margin of profit going down have put pressure on the insurers to reduce the procurement cost. Direct selling by the insurers with automated underwriting in insurance can be one of the solutions in this direction. Kumar and Ruan (2006) find that the addition of a direct channel including online channel may help increase the level of support from existing independent retail channels (i.e., independent agencies or brokers). And customers can switch the distribution channel if their preferences change, an advantage that prevents possible cannibalization effects.

The use of multichannel distribution may better be able to meet the needs of existing customers (Tsay and Agrawal (2004)), because existing customers can purchase the firm's products through the channel that best suits them. Further, the use of additional channels may prevent the loss of market share to new rivals that enter the market at low prices via specialized channels. From the study also, it is clear that all the distribution channels are going to stay in the market and they are therefore needed to be optimally managed to enhance the growth and profitability. Further, the multiple distribution channel strategy offers scope for better penetration and accessibility through diversified channels. Insurers, therefore, have an opportunity to differentiate themselves through their distribution channels. Innovative and customized products can be offered to customers through multi-channels. The insurers have been using different mix of distribution channels for different segments, like agency and Bancassurance are doing well in retail insurance, and direct selling by insurers and brokers is doing well in group/corporate business. Similarly in rural areas, the high cost of agency channel cannot be economically viable but banks with widespread

reach to customers, NGOs, Micro-agents are useful channels for distribution of insurance in rural areas. A multi-channel management is, therefore, the key to reach more and more customers of different segments, leading to customer satisfaction and profitable growth.

With rise of middle class customers, the demand for new and innovative insurance products have increased; new generation of customers are internet/online/mobile savvy and would like to know more about insurance products and compare them before selecting the appropriate distribution channel to purchase insurance. Explosion of technology backed with the increased use of internet and mobile telephony provides a low-cost opportunity to the insurers. The insurers can leverage some of the successes of online banking and e-commerce to build an online standardized product bouquet that engages the customer and enables him/her to buy with confidence. From the study, it is clear that the younger age group of customers as well as the type of occupation has positive influences on the selection of Technology based distribution channels.

However, there are also potential disadvantages to the use of multiple channels. Cost disadvantages can arise because of the high investment costs of establishing an additional distribution channel and of coordinating between the channels (Easing wood and Storey (1996)). Channel cannibalization may also occur; instead of increasing turnover and profits, additional channels simply redirect business from one channel to another.

Life Insurance Premium Figures (India)   Annexure-1

S. No.	Insurer- Year	Public Sector	Private Sector	Total	Growth %
1	2002-03	54628.49	1119.06	55747.55	11.28
2	2003-04	63533.43	3120.33	66653.75	19.56
3	2004-05	75127.29	7727.51	82854.8	24.31
4	2005-06	907922.22	15083.54	105875.76	27.78
5	2006-07	127822.84	28218.75	156041.59	47.38
6	2007-08	149789.99	51561.42	201351.41	29.01
7	2008-09	157288.04	64503.22	221791.26	10.15
8	2009-10	186077.31	79369.94	265447.25	19.69
9	2010-11	203473.4	88165.24	291638.63	9.87
10	2011-12	202889.28	84182.83	287072.11	-1.57
11	2012-13	208803.58	78398.91	287202.49	0.05
Market	Share	72.7%	27.3%	100%	

Source: IRDA Annual Report, 2012-13, pp124

Gross Direct Premium of Non-Life Insurers (Within & Outside India)

S.No.	Year	Public	Private	Total	Growth %
1	2000-01	10491.88	7.14	10499.02	
2	2001-02	11917.59	467.65	12385.24	17.97
3	2002-03	13520.44	1349.8	14870.25	20.06
4	2003-04	14284.65	2257.83	16542.49	11.25
5	2004-05	14948.82	3507.62	18456.45	11.57
6	2005-06	15976.44	5362.66	21339.1	15.62
7	2006-07	17283.45	8646.57	25930.02	21.51
8	2007-08	17813.71	10991.89	28805.6	11.09
9	2008-09	19107.31	12331.09	31428.4	9.11
10	2009-10	21838.85	13977.00	35815.85	13.96
11	2010-11	26417.21	17424.63	43841.84	22.41
12	2011-12	32263.46	22315.03	54578.49	24.49
13	2012-13	37071.8	27950.7	65022.5	19.14

Source: IRDA Annual Report, 2012-13, pp 193

References

- *Easing wood, Christopher and Christopher Storey (1996), The Value of Multi-Channel Distribution Systems in the Financial Services Sector, The Services Industries Journal 16, 223-241.*

- *European Insurance Figures, (January,2013 pp39, 41-43) http://www.insuranceeurope.eu/ uploads/Modules/Publications/eif-2013-final.pdf*
- *IRDA-Report of the committee on Distribution channels, 2008 pp4. Report published by Insurance Regulatory and Development*

Authority of India, Hyderabad. https://www.irda .gov.in/ADMINCMS/cms/frmGeneral_NoYear List.aspx?DF=Creport&mid=

- *IRDA, Annual Reports 2012 -13 pp19, 76, 78, 79, 124, 193, 212; 2013, Report Published by Insurance Regulatory and Development Authority of India, Hyderabad. (www.irdaindia.org)*

- *IRDA Annual Reports 2012-13 pp79, 2013; 2011-12 pp84, 2012; 2010-11 pp65, 2011; 2009-10 pp63, 2010; 2008-09 pp47, 2009; 2007-08 pp57, 2008. Report Published by Insurance Regulatory and Development Authority of India, Hyderabad. (www.irdaindia.org)*

- *IRDA Annual Reports 2012-13, pp212, 2013; 2011-12 pp202, 2012; 2010-11 pp156, 2011; 2009-*

10 pp146, 2010. Reports published by Insurance Regulatory and Development Authority of India, Hyderabad.

- *Kumar, Nanda and Ranran Ruan (2006), On Manufacturers Complementing the Traditional Retail Channel with a Direct Online Channel, Quantitative Marketing and Economics 4, 289-323.*

- *Tsay, Andy A. and Narendra Agrawal (2004), Modeling Conflict and Coordination in Multi-Channel Distribution Systems, in David Simchi-Levi, David Wu, and Max Shen (eds.), Handbook of Quantitative Supply Chain Analysis, New York et al.: Springer.*

A Bank for the Buck:
The Story of HDFC Bank

Book Review

Author: Tamal Bandyopadhyay ▼ Reviewer: Peeyush Mittal
Publisher: Jaico Publishing House, India

Foundation of the Indian banking industry has its roots in18th century, and since then it has gone through many wide-ranged evolutionary experiences. Banks of India primarily were engaged in financing activities and worked as traders' banks.Indian Banking system was paralyzed with the uncooperative ways of government owned banks towards its customers. The lazy attitude of employees of the government owned banks towards its stakeholders i.e. customers was ruthless and annoying. People were longing for an effective, fast and technology based banking system where transactions can move lightning fast. Government of India also felt the need of more refined banking system and opened the banking sector for the Indian private players in the year 1990. In the early 1990s, the then Narasimha Rao government embarked on a policy of liberalization, licensing a small number of private banks. These came to be known as New Generation tech-savvy banks, were - Global Trust Bank (the first of such new generation banks to be set up), UTI Bank (now Axis Bank), ICICI Bank and HDFC Bank. This move, along with the rapid growth in the economy of India, revitalized the banking sector in India, which has seen rapid growth with strong contribution. The two banks that have emerged as a clear-cut winner of government's policies are ICICI Bank and HDFC Bank.

HDFC Bank is brain child of Mr. Deepak Parekh of HDFC Ltd.Mr. Deepak Parekh has been remained instrumental in inception as well the scouting for the right resources for the bank. Since it has opened very first branch on the 6th floor of Ramon House, Mumbai, on 16th Jan. 1995, HDFC bank has covered a very long journey by establishing its present branch base and point of services to its stake holders i.e. customers. HDFC Bank has fulfilled the long awaited wish of the Indian banking customers of getting a world class banking services within India itself. HDFC Bank has changed many established norms and created new ones. It did very ordinary things in extra-ordinary way. The bank and Mr. Aditya Puri- MD & CEO of bank, has the same vision – Combining the product and services of foreign bank for Indian People and compete with the best on global parameters.

HDFC Bank Limited (promoted by one of India's Leading Financial Institution- HDFC Ltd.) is Mumbai, Maharashtra based banking institution whichwas incorporated in august 1994.Adjudged the 5th Largest bank in India by its assets and first by the market capitalization in 2013, with growing network of 3659 branches, 11633 ATM's in 1568 cities of India. HDFC Bank main business is from three key segments – Wholesale Banking, Retail Banking and Treasury.HDFC Bank has merged two banking entities – Times Bank Ltd & Centurion bank of Punjab Ltd., in 2000 and 2008 respectively. HDFC Bank is able to maintain a healthy growth of CAGR 33% over the last ten years. It has two fully owned subsidiaries – HDFC securities ltd. and HDB financial services.

This book under review is a complete journey of one of the India's leading private bank, HDFC Bank Limited. Tamal Bandyopadhyay has beautifully compiled the account from inception to still undergoing journey of the bank which formed the thirteen chapters of the book.I recommend this book for all the people who want to know more about the Indian banking industry and the evolution of private sectors banks in India as well about the vision behind the captioned bank, HDFC Bank Ltd. It is a must read for the students at all the levels of studies i.e. B.Com, BBA and MBA (Banking & Insurance), MBA (General) and others.

*Peeyush Mittal is a faculty and trainer and Times Centre for Learning Limited.

Read it with sorrow and you will feel hate.
Read it with anger and you will feel vengeful.
Read it with paranoia and you will feel confusion.
Read it with empathy and you will feel compassion.
Read it with love and you will feel flattery.
Read it with hope and you will feel positive.
Read it with humor and you will feel joy.
Read it with God and you will feel the truth.
Read it without bias and you will feel peace.
Don't read it at all and you will not feel a thing.

Shannon L. Alder
(Novelist)

Mentor
Dr. Arun Sahay *(arun.sahay@bimtech.ac.in)*

Editor
Abhijeet Lele *(abhijeet.lele@bimtech.ac.in)*

Editorial Board
Veenu Sharma *(veenu.sharma@bimtech.ac.in)*
Shreya Mishra *(shreya.mishra_july14@bimtech.ac.in)*
Amrendra Pandey *(amrendra.pandey@bimtech.ac.in)*

Advisory Committee
Prof. A.K. Dey, Prof. A. V. Shukla, Prof. Parameswar Nayak, Prof. Manoj Pandey,
Prof. Arindam Banerjee, Prof. Sangeeta Shukla, Prof. Archana Shrivastava, Prof. Manujata, Prof. Saloni Sinha