

# IMI Konnect

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## Digital Marketing

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## **About *IMI Konnect***

*IMI Konnect* is an open access Scholarly Management Magazine published from International Management Institute Kolkata. It started its journey in December, 2012 and publishes original research articles by scholars in the field of management and firsthand perspectives from business thinkers and practitioners on contemporary issues. *IMI Konnect* provides an intellectual platform for the national and international scholars and the industry experts to discuss and debate their opinions and thus contribute to the knowledge of management. It also publishes interviews with eminent personalities in the field of business. The publication caters to academicians and practitioners in corporate and government organizations and departments.

The issues are themed on Marketing, Finance, Organisational Behaviour & Human Resources (OB & HR), Information Technology & Operations (IT & Operations), Strategy, Economics and Management. Students/scholars pursuing Masters, M.Phil or Ph.D. are also encouraged to send articles on the aforementioned areas. The articles will go through a review process before publication.

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## **Manuscript Submission Guidelines**

The article should be non-technical and within 1600 words. It should be typed in MS Word in Times New Roman 12 with paragraph spacing 1.5. Figures and simple, small tables can be incorporated. There should not be any notation or equation. Full forms of each abbreviation should be mentioned at first instance. Upto eight references can be included in the article. Limited number of short footnotes may also be included if necessary. Send your manuscript along with your name, designation, institutional affiliation, email ID and contact number to the editorial office at [imikconnect@imi-k.edu.in](mailto:imikconnect@imi-k.edu.in) mentioning the area viz. Marketing, Finance, OB & HR, Economics, Strategy, IT & Operations, Management Education and Others.

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# Is Digital Marketing the Future of Marketing?

With its journey, the Scholarly Magazine of IMI Kolkata has completed four volumes. And now, the fifth volume comes up with a new look. This has not only more pages, but wears a more serious look – the look of a unique magazine that embodies scholarly articles from academic and industry experts, interviews of eminent personalities and has been able so far, to ignite serious thoughts about contemporary topics in business.

Not only that, the new edition of IMI Konnect, in the present volume, is presenting a themed issue on Marketing, viz. digital marketing. It is not surprising that with the growing e-commerce industry in India, digital marketing is getting more and more prominence. More importantly, this prominence is going to be more in the future with the Prime Minister's Digital India project. If by 2019, the rural India gets digitally connected through internet and mobile phones, the companies will have a much easier access to the largely untapped, but a huge market – rural India.

As mentioned in a survey report by Octane Research (January, 2015), for a majority of companies in India, website is the main e-marketing activity; however, retail & e-commerce and travel sector consider that primary e-marketing activity is Email Marketing. While blogs and newsletter is the mostly used content marketing tool, for some sectors like education, social media is more frequently used.

At this backdrop, this issue presents the perspectives of a practitioner, two academicians and one young scholar. Devraj Basu of Saatchi & Saatchi opines that effective online branding is the need of the hour for companies to survive. He emphasises on two ways, viz. optimisation of the brand website and social media marketing.

Stéphane Bourliataux-Lajoinie of University of Tours, France, provides a brief account of another important concept in this context, viz. cloud computing. The advancement of technology and taking the advantage of it to sustain in business, especially in the BRIC countries is the focus of his article.

Syagnik Banerjee of the University of Michigan, splendidly describes how the online social interaction has increased over the past few years. And with this, the marketing executives had to shift their decision making process from hardcore numbers emanating from market research to processing textual and image data. In such a scenario, to predict consumer preferences, the new techniques have evolved, e.g. big data has become an integral part of explaining consumer preferences.

The young scholar, Snigdho Sundar Kundu, from IMI Kolkata writes about another technological innovation helping the marketer to understand consumer preference patterns. The Internet-of-Things connects devices and thus is opening opportunities for brands to listen to their consumers more closely and respond accordingly.

The Scholarly Magazine, in its endeavour to disseminate knowledge and deliberate contemporary issues among the fraternity of academics, industry experts and even the students, has introduced new features like Young Scholars' Corner, Practitioner's Perspective, Management Education etc. This is the first themed issue, apart from the Special Issues. I sincerely hope that the readers will enjoy reading this issue!

I wish all the readers and well-wishers an enriching New Year ahead.

*Paramita Mukherjee*

# On-line Branding

**Devraj Basu**

Senior Vice President & General Manager

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For those of us who grew up in the off-line era, it's a reality that our encounter with a new brand today is mostly in the on-line space. Almost all of us will vouch for the fact that a first encounter with a new brand on print or outdoor today is invariably followed up by a Google (on-line) search. So, much like positioning and the erstwhile branding process, if we don't do something about on-line branding, it almost in any case happens by default. Hence it is critically important to do some meaningful on-line branding for a brand with whatever means that we have at our disposal, and the purpose of the present article is to draw up a broad checklist towards this objective while highlighting in some cases the underlying principle of it.

The good news is that we don't need to look far. Some trailblazing Indian entrepreneurs have exhibited with great skill and foresight what it takes to meet the unique needs of the Indian customers and delight them. And that too across traditional sectors like jewellery, grocery, travel, books, eating out, real estate, matchmaking as well as new sectors such as on-line images, talk shows, television shows, blogs, games, micro finance ... the list just goes on.

First, on-line branding really is another brand management technique. Or is it? While it needs to follow the core principles of brand management like drawing inspiration from both the core essence of the brand and staying true to it, it is relatively a newer technique and one that every practitioner of the science and art of branding today needs to come in terms with. Simply put, the on-line method uses the World Wide Web as a medium for positioning a brand in the marketplace. And as we know, blogs, websites, web searches, online press releases and video marketing are some of the methods used for this purpose.

There is a belief that on-line branding is about just building salience for the brand which could be in isolation from the overall brand space, as long as that leads to top-of-mind (TOM) awareness. Nothing possibly is further from the truth. While salience is important, it cannot be at the cost of not integrating it with the overall brand experience of the customer in relation to the company, product or other branded entities, especially in today's omni-channel marketing scenarios, where "Collaboration Age" brand dialogue is facilitated by internet and mobile telephony.

So foremost, we need to guard and sustain our brand essence and identity when plunging into any piece of the on-line action. And yes to that extent it is another brand management technique – albeit very distinct. Some examples of essence are: *Protection* for Dettol, *Rugged Individuality* for Marlboro, *Baby Care* for Johnson's etc. And how exactly do we sustain and foster this Essence? Simply by defining and guarding the eco-system around the brand. Where was it born, parents/heritage, the language and the way it speaks, where does it go for work, play, holiday, its beliefs, character, culture, dreams. In fact just the way I would, with utmost care and dedication, draw up a Kapferer Brand Identity Prism (or other such robust models) with all key stakeholders of the brand, and then proceed to guard it with my life. Just that here in the on-line space, the ways of enriching the brand-world/eco-system and reaching out to its customers both present and future are practically endless.

The next two critical areas of focus for effective on-line branding for any brand in my belief are Optimization of the Brand Website (for optimal performance on the search engines) and the Social Media Marketing – perhaps the most cost effective way to promote small businesses and corporations.

While the science of website optimization is a much deliberated subject, and perhaps the first thing that a brand ought to do to drive meaningful traffic to its site, it is the art of social media marketing that sometimes puts the Davids amongst brands on to some real level playing field against the Goliaths.

The next most critical area worth emphasizing in the on-line branding enterprise is the creation and distribution of high quality content which should include the production and leveraging of videos. In fact Video Marketing – leveraging the likes of You Tube, Metcafe, Vimeo is again another great leveler for businesses of all sizes and scale that promote the brand, driving traffic to its site and helping get noticed by a target audience. Great examples abound on the net. While the brand *Chanel* internationally is a fabulous exponent of this art, of late some Indian brands and relatively unknown ones (eg. Common Floors ) have made a promising start.

Finally, starting a blog no doubt enhances brand visibility on-line. Besides improving search engine rank, blogging establishes brand validity and reach. And, when handled well, the other unique thing which blogging can help achieve is foster a great relationship with the brand's customers and key stakeholders. But this surely needs to be done with honesty and real purpose as it gets increasingly looked upon with cynicism at both the private and public levels. The increasing number of cases where private blogs have been subjected to public probity, and at the government's initiative – is a case in point. Southwest Airlines, in the US, has possibly mastered this and really is a model treasure trove for anyone wanting to learn this craft.

The big deal in all these is really about customer engagement. The trick is to start by listening and seeing who is talking about our brand. And if no one is, then to start the conversation. But the big idea is to also remember that it's a conversation leading to interaction, not a means to force a message on consumers. In short, our brand will prosper on-line quickly if we remember to treat social media as a meaningful dialogue.

And that, in my humble opinion, is the crux of on-line branding where through honest and meaningful dialogues at a personal space and time, not Brand-followers, but Brand-Advocates get created. And as all marketing practitioners know, true brands are created and sustained not by any company, but by passionate Brand Advocates.

# Cloud Computing: An Opportunity for New Actors Coming from BRIC Countries

**Stéphane Bourliataux-Lajoinie**

Assistant Professor, University of Tours, France

The term Cloud Computing has been very much in vogue since 2011; a large number of popular magazines have proposed special dossiers on this development in computing. According to the Gartner consultancy the world Cloud Computing market ought to be worth more than 100 billion dollars by 2015 and create 14 million jobs. Cloud is a logical consequence of this ultra-mobility and use of several interfaces (tablet, smart-phone) the users have quite naturally adopted for the dematerialisation of their data. Mobility entails instituting technical tools that allow access to data from a mail box, a remote storage disc, or an application that can be run via the internet. These are the requirements of personal use that have enabled professional uses to be developed.

The annual growth of Cloud is quite exceptional (on average 20% growth since 2010) and at the horizon of 2016 will represent a market of 200 billion dollars and 15 million jobs. The Infrastructure as a Service (IaaS) solutions alone have increased by 45% in 2012. Just in Europe – in a survey carried out on behalf of the European Commission – the market consultancy IDC foresees 2.5 million jobs and 160 billion Euros a year between now and 2020.

One of the main opportunities of Cloud Computing is its commencement from non-industrial infrastructure. Today only few manufacturers are able to propose Cloud Computing Infrastructure (IBM, Cisco, Alcatel, and Huawei). From a Porter's point-of-view the barriers for entrance are very low. Some countries with excellent computer engineers and some high level telecom infrastructure (optic fibre, satellite connection) can develop some real alternatives to European or North American Cloud providers. Some countries have started to develop their own Cloud for financial or security reasons, they can now propose some offers for national and international firms [Greengard (2010); Hill (2013); Kshetri (2011)]. Three of the BRIC countries have already kickstarted this race and may be the next generation of international Cloud actors.

Cloud Computing is based on the central notion of service. Computing in its widest meaning is only a technological means to reach the desired end. In this universe of Cloud, however, three types of technical levels have to be distinguished - from simple storage to the total integration of the information system. The terms used are IaaS (Infrastructure as a Service), PaaS (Platform as a Service) and lastly SaaS (Software as a Service) [Madhavaiah et al. (2012)].

**IaaS:** The Cloud supplier leases the client storage capacities. This is an extension of the business and server networks. The server used to be in a server room and managed by a technician, and was exploited by an employee from his office. In the case of IaaS the server and its hard discs are outside the enterprise geographically and their physical maintenance is assured by persons outside the enterprise. The typical example is Dropbox.

**PaaS:** The Cloud supplier leases the client a platform to develop, deploy and run applications from programming interfaces (concretely Windows or Linux machines with a certain power and storing capacity). This form of Cloud is an extension of IaaS. Businesses prefer this solution if they have to install packages or specialised programs for which they have acquired licences. This amounts to outsourcing the server – physical machines, operating system, security and electric system – to another enterprise.

SaaS: The Cloud supplier leases the client connection time on a program installed on one of the operator's servers. This is a complete outsourcing of hardware and software resources out of the enterprise. Depending on the service supplier's business model the lease is either charged for or free. Typical example: a Gmail box (free business model) or Office 365 (paying business model).

### **Can These Three Forms of Cloud Really be Separated?**

The question is legitimate. From IaaS to SaaS there is, in fact, a continuum of technologies and services which finally is connected to mobile practices. Thus several companies propose services going from simply backing up data on-line to totally outsourcing business information systems. The partitions between the three forms can be delicate to determine. Depending on the offers, options, or needs, an enterprise may subscribe to contracts linked to different forms of Clouds. To heighten the confusion the major Cloud suppliers generally propose their whole offer from IaaS to SaaS in their range of services: only the name of the contract changes.

But the entrance ticket is based on IaaS and the main opportunity for BRIC is on this form and some countries have well understood the opportunities from this market [Rawal, (2011); Sousa et al. (2015)].

In Russia, according to a study of Fast Market Research, ICTs should grow by 11% in 2013 to reach 18.7 billion Euros. Cloud's share only represents about 91.4 million Euros, but it is progressing by 40 to 60% a year according to the market consultancy IDC. In this country where no legal framework regulates Cloud the issue is different. To protect their data from any government interference (they fear being checked by the police who may confiscate their computing equipment) or from their competitors. Russian businesses resort to the Cloud services of Latvia, a former Soviet republic in full expansion in this field. This Baltic country has the advantage of having a Russian-speaking community amounting to a third of its population. The results of a company such as DEAC, which has installed its ultramodern servers in Soviet bunkers buried twelve metres underground, increased by 46% in 2012 with more than 500 projects with Russia, the Ukraine, and Belarus. For the same security reasons, Russian businesses that propose Cloud services to foreign suppliers active on the local market generally offer the possibility of storing (IaaS) data in Europe. Nonetheless, when it comes to payment on-line services Russia considers they cannot be hosted in other countries.

India, as part of its vision for 2020, has the ambition of having a better educated and healthier population - the most prosperous in its history. Cloud appears to be one of the unavoidable technological levers to materialise this vision in the field of health and education. A white paper of the CII (Confederation of Indian Industry) in July 2012 presents the road map of what might be "The Indian Cloud Revolution". The first recommendation is to adopt a Cloud policy both for the government's internal uses (towards a systematic use of Cloud applications) and also for the expansion of a national industry that could benefit economically from this revolution. In January 2013, the department of electronics and information technologies (DeitY) presented its initiatives for the year 2013 with a focus on the "mobile government" based on Cloud applications. The government wanted a Cloud infrastructure to be installed in the Delhi national datacenter and to launch the first phase of a national Cloud to connect the datacenters of the various Indian states. It is meant to be the backbone of the national e-government plan.

According to a study by the consulting firm BroadGroup, China projects to invest 287 billion Euros to develop its ICT infrastructure, which will enable it to double its datacenter capacity by 2016. Moreover, a special fund of 215 million Euros will be allocated to a Cloud research programme. Five pilot towns have been selected and 15 key programmes are to be carried out. The government's aim is to see 10 leading companies emerge in the field each with 10 million users and an annual turnover of 615 million Euros. The 12<sup>th</sup> Chinese 5-year plan foresees the construction of a special "Cloud City". The Cloud is meant to accelerate the modernisation of territories forgotten by the successive waves of

industrialisation. 1.3 billion people will thus have access to IT technologies. Cloud is finally an economic means to achieve all this while keeping control... over the data!

### Conclusion

The market for Cloud is now mature and new actors from BRIC are capable to propose some highly professional solutions for firms. Competition is moving from USA and EU to China, India and Russia. The IaaS is an important opportunity to develop high revenues for the firms. But the major limitation now remains telecom infrastructure and Cloud needs to be supported by a high speed telecom broadband and a perfect electric supply system. Few zones in BRIC can propose these condition with a 24/7 efficiency. The market is ready, international firms will be ready to stock their data in different countries if the price/quality ratio is good, but infrastructure will be the next step to establish Cloud opportunities [Sagar et al. (2013)].

Today China and India return to the competition by proposing not only Clouds for their own enterprises or citizens but also for all businesses throughout the world wishing to store data. Only Africa and South America seem to be absent for the moment from this market.

And what if Cloud's future were in the BRIC countries?

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# Past, Present and Future of Digital Marketing: The Journey to a Post Human Era

**Syagnik Banerjee**

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During the dot-com bubble (1997-2000), I joined a company that set up machines along fuel stations of Indian highways where truck drivers swiped vehicle-identified cards. Swiped information was sent to the company's servers via dial-up internet, and viewed on their website by consignors and consignees to track shipments. However, the fulcrum of connectivity lay in these stations, in rural interiors, tied to local electricity cables, phone lines and a voltage stabilizer. Disaster struck our Ratlam tracking station in Madhya Pradesh when field rats chewed out the cables. But cables weren't the only problem. GPS, our competitor, struggled equally to convince truck drivers to install units that transmitted information wirelessly without the driver's consent. For a while, it appeared that grassroots of India were not ready for embracing transparency, be it due to the culture of knowledge sharing or infrastructure. However, in a decade, the scenario transformed and the interiors started riding the wireless wave. Rising from the ashes of inequality and impoverishment, mobile internet not only changed the user base and the composition of the global digital economy, but also the way marketers viewed needs, target markets, and diffusion of innovations.

When the global population was approaching 7 billion, computers had reached a penetration of just about 2 billion, whereas mobile devices had reached almost 6 billion hands. This represented an anomaly. Marketers believed that innovations diffused among those that are richer and more educated first. But developing nations leapfrogged into mobile devices, without going through the stages of using fixed-line telephony, cables and computers. This unleashed an unexpected source of diversity for digital marketers. As more and more mobile users got added to the pool of digital audiences, marketers observed unexplained patterns in website visits, click through rates as well as keyword choices.

On one hand, developing nations were adding audiences never seen before. Never before had any electronic channels percolated to the bottom of the pyramid, whereas individuals below the poverty line had access to mobiles, even if not food. Africa and Asia were adding groups of mobile-only-internet users, who either could not afford or had never been acquainted with computer-connected internet. This was changing the overall browsing patterns, needs, languages, and words web developers needed to address. This audience could not be ignored, because in nations devoid of basic infrastructure, instant information and connectivity was helping build networks, enterprises, increase financial inclusion, and transforming physical growth of the economy. Though figures vary across countries, some found doubling mobile data use increased GDP by almost 0.5%.

In other parts of the world, developed nations were also adding to the chaos. User preferences were changing with device. Individuals could afford to possess multiple devices, and they were being used for different tasks and situations. The same person would use different keywords to search the same object in different contexts. The consumer's multiple-selves, activated by a wider array of situational cues, drove marketers to expand their horizons of vocabulary to understand user needs. Experiments with Boy Scouts Chicago, and Heartland Mobile Council for my first academic course on mobile for Northwestern University revealed that as screen sizes become smaller, ubiquitous users choose more specific and execution based keywords than broad or deliberative ones, which are favoured by situated users on larger screens. Ubiquitous use was triggering dual-consciousness in virtual-physical consumers, leading occasionally

not only to daily activity synchronization, but also to short term distracted behaviours like texting while driving, long term changes via lowered attention spans, changed learning processes and rising emotional detachment in parent child relationships. At the social level, moving away from face to face interactions into online communication reduced formation of empathy, affecting a wider range of behaviours. Irrespective of its drawbacks, the global digital revenues grew to more than \$1.5 trillion, with almost 34% of the revenues being driven by mobile platforms.

Though physical social interactions reduced, online social networking boomed. Media and PR started shifting shape and form. Social media became the filter for trust and perceived credibility of news stories, and consumer feedback started being generated from pictures, images and conversations. Market Researchers trying to understand preference patterns had to move beyond numbers to invest in processing textual and image data.

While consumer needs were changing, so were business ecosystems. When I joined Bharti Telecom in India at the end of 2001, the national long distance segment had just been opened up to private participation. In January 2002, based on the might of cellular connectivity, this newly formed fledgling venture declared price war on the government owned telecom giants by reducing tariffs by 61% on certain routes. Overnight, cellular connectivity in the hands of the consumer shifted voice traffic away from the landline networks owned by the larger government corporation, thereby changing the structure of the telecom ecosystem, its drivers and the power between the players. With changing tariffs, market shares and power redistribution, came changes in revenue shares and profitability. The lesson was simple. Mobiles in the hand of consumers could change prevailing power structures in an ecosystem. Few years later, in 2007, Apple pulled off a similar act that disrupted the US telecom industry. Traditionally, wireless carriers treated handset manufacturers with limited importance, using their network-access as leverage to dictate what types of phones to manufacture, at what cost, and what features they will offer. Handsets were viewed as disposable appendages, used to bait subscribers and lock them into using carriers' proprietary services. But focusing on user interface design, visual appeal and brand building, the iPhone upset that balance of power. Why was the change in mobile ecosystems so critical for digital marketing? Because by creating a profitable app-economy and changing the face of social communications and location based services, iPhone became a catalyst of explosive growth in mobile internet usage. The emerging data reflecting individual consumer's needs and habits, started creating large databases that would finally become a part of what we know as Big Data, causing a departure from human participation in digital marketing processes. With its capabilities of ubiquitous connectivity and having reached a critical mass of information sharing, the mobile device became the stepping stone between the landline telephone, computer and wearable computing, biologically embedded sensors and Internet-of-Things that would all feed into Big Data repositories, developing knowledge systems for understanding, innovating and serving future needs.

As business ecosystems evolved, so did technology. Commercial computing needed to process increasing amounts of user data affordably at efficient speed. In the 1990's, though programs running on monolithic supercomputers could be distributed into hundreds of smaller programs working simultaneously on hundreds of workstations, 7 days weather could be simulated in just about 15 days. Today, the same task is completed in hours. In 2004, a paper called "MapReduce: simplified data processing on large clusters", authored by Jeffrey Dean and Sanjay Ghemawat of Google, showed a way by which the average Java programmer could get hundreds or thousands of machines to work together. That became a turning point. The open source community replicated the computation engine, and distributed computing unraveled. Hadoop, which was originally developed to affordably process Yahoo!'s clickstream data, developed a big data ecosystem of products, vendors, startups, and disruptive possibilities. IDC's sixth annual study of the "digital universe" forecast that the digital universe would grow 300 times in size between 2005 and 2020, or about double every two years.

Today in Zollikofen, Switzerland, dairy farmer Christian Oesch receives text messages from his cows triggered by embedded sensors every time the cows are in heat. The electronic heat detector helps farmers know when to bring in a bull or the artificial inseminator, for best timing the mating, demonstrating how biologically embedded sensors trigger electronic communication and get cataloged as data. The “Internet of Things”, thus, is a term used to describe devices, products or objects with embedded sensors to communicate with each other through wired or wireless networks. It could be a car, refrigerator, wearable armband or a pill swallowed to inform concerned parties about fuel efficiency of the running vehicle, being out of stock of milk, health of heart rate, or elevated levels of a chemical in the digestive tract. With increased penetration of sensors into everyday products, digital marketing is no longer remaining restricted to mere transactions that take place through online platforms, but is merging physical and virtual platforms of exchange, serving as a coordinator that helps synchronize real need recognition with supply and availability. In the process, it is becoming more driven by data and machine-learning algorithms.

For many giants like Google, Amazon and Facebook, machine learning processes have already taken control of segmentation targeting and predicting consumer preferences substituting subjective gut feel. Companies like Dstillery, working for Verizon and Orbitz, specialize in converting “prospective customers,” who have had no interaction history, based on browsing behaviour, bids, impressions and clicks in response to test campaigns run by bots millions of times with controlled repetitions. From the perspective of education, skill and training, marketing jobs are increasingly going to those trained in computer science, and database organization, pointing to our need for changing the subject curriculum and future workforce.

With the growth of bigger databases and automation comes the potential threat of greater concentration of automated power, somewhere between George Orwell and Isaac Asimov. Privacy legislation has been making efforts towards reducing the scope for uncontrolled aggregation, be it government or private, as has been evident in the Right to be Forgotten as well as the changed Safe Harbor rulings in Europe. However, taking a look at MIT Media Laboratory’s publications on extending legal rights to robots, makes one wonder how long it will be before marketers face artificial intelligence unions before discontinuing inefficient algorithms in their optimization processes.

# Internet of Things and the Future of Marketing

**Snigdho Sundar Kundu**

PGDM Second Year

International Management Institute Kolkata

Marketing has been evolving continuously ever since it was recognized as an important business function. Over the years the area of focus has shifted from the product to production techniques, from the consumer to technology. In the recent years marketing is becoming more data driven. Data and customer experience (CX) are gradually becoming the cynosure of the marketing decision makers' eyes.

Internet of Things (IoT) is one such technology that is catering to the needs of the marketer. The idea is to connect to the physical objects on the internet that are enabled with capabilities of internet connectivity, data collection and transmission. With wider internet access, lowering costs of microprocessors and smartphone ubiquity, its feasibility is gradually crystallizing. IoT is thus facilitating more interconnection by adding intelligence to the most commonplace stuff like cars and watches. This is resulting in more complex networks, more flow and analysis of data and more value addition to data driven marketing decisions.

The interconnectivity of devices enabled by IoT is opening opportunities for brands to listen to their consumers more closely and respond relevantly. Data transmitted by devices that surround the lives of people today enables marketers to predict the actions of the consumers in real time. Unlike big data which enables marketers to understand several customers and their habits, IoT enables marketers to understand one single customer's habits. An example to elucidate: Point of Sale (POS) data can find out a correlation between purchase of beer and peanuts based on the frequency of their joint purchase. This is a description of the habit of many customers relevant to a retail store. On the other hand, understanding the driving pattern of a car owner from the data transmitted by a sensor enabled car is relevant to an auto-insurer for charging a high or low premium to its customer. Another example could be a smart watch being able to read the heart rate of a person. In case of an anomaly the smart watch books an ambulance and flashes the message "*your heart rate is unusual, please sit down and wait for an ambulance that is on the way.*" Thus, a good analysis of the data produces a good prediction which makes marketing more relevant to the consumer and enhances CX. Enhanced CX makes the relationship between the customer and the brand stronger. It promotes awareness, interest, purchase and advocacy of the brand.

IoT is trying to create a digital ecosystem which is connected by devices, services and apps. CX will be gratifying only when products can work well in this digital ecosystem. Connected and interdependent performance of products would be superior to functional silo. Data is thus to be shared and not just collected and coveted.

A lot of marketing efforts do not yield anything because they are not relevant to the customer at that moment. This is largely due to information asymmetry. It is just impossible for marketers to track each consumer's needs and consumption patterns. But with the ecosystem of IoT in place, marketer's efforts can be more fruitful. IoT enabled product technology companies would naturally be aggregating the data on how customers are using things and leading lives from the numerous interconnected 'things'. Needless to say that such information would be too valuable to marketers. One may wonder whether the data collecting companies will become too influential. Yes, they would be. Marketers would have to shift their budgets to access this information. Access to information would probably be one of the competitive advantages of the new age. It would be a good idea for companies to start investing in IoT and develop their capabilities on data analytics. IT analyst firm Gartner reported that 3 billion devices were connected to the

internet in 2013 and the count will be 25 billion in 2020. Cisco estimates that from 2013-2022 \$14.4 trillion of value will be added to companies globally due to IoT. The numbers reflect the multiplicity and the pace of penetration.

IoT can change business formats completely and compel businesses to change their ways. Marketers as business vanguards need to keep abreast to such potential disruptions. Once the technology is conducive the sleeping giant named IoT will wake up. Any disruptive technology reiterates the theory of Darwin: “survival of the fittest, extinction of the rest”. The wiser should start preparing as IoT remains a revolution in the waiting.



Data transmitted by devices that surround the lives of people today enables marketers to predict the actions of the consumers in real time. Unlike big data which enables marketers to understand several customers and their habits, IoT enables marketers to understand one single customer's habits.



## FINECON 2015 at IMI Kolkata

IMI Kolkata organized a *Finance & Economics Conference (FINECON)* during December 21-22, 2015 in collaboration with Sichuan Academy of Social Sciences (SASS), China; the North South University (NSU), Bangladesh and the Asia-Pacific Economic Association at its campus. The conference witnessed an august gathering of academicians, economists, researchers and luminaries from the industry all across the globe.

The inauguration ceremony was graced by Dr. Kar-yiu Wong, Professor, University of Washington, Seattle, USA; Dr. Chung Mo Koo, Professor, Kangwon National University, Korea; Professor Zheng Taian, Vice President of Sichuan Academy of Social Sciences, China; Professor Mohammad Mahboob Rahman, Dean of School of Business and Economics, North South University, Bangladesh; Professor Arindam Banik, Director, IMI Kolkata and Dr. Sarojakshya Chatterjee, Professor, IMI Kolkata and convenor of the conference.

The keynote address was delivered by Dr. Kar-yiu Wong on *The Economic Impacts of the “One Belt, One Road” Initiative*. He mentioned that the project consists of series of land and sea routes that connect more than 60 countries together and is expected to change the economic landscape of Asia and Europe to a substantial extent. The initiative aims at the movement of people/commodities in a much faster and cost effective manner between the nations and is likely to increase the welfare of the people in general. He deliberated on the implications of the aforementioned initiative on export, import and welfare in the partial equilibrium framework.

The panel discussion on the first day focused on *Lessons from Financial Crises for Emerging Economies*. The panelists were Zheng Taian, VP, SASS; Mohammaad Mahboob Rahman, Professor and Dean of the School of Business and

Economics, NSU; Rajib Doogar, Associate Professor, University of Washington, Bothell and Satyajit Deb, DGM, RBI. The moderator for the discussion was Basabi Bhattacharya, Professor, Department of Economics, Jadavpur University.

On the second day the topic for the panel discussion was *Asian Economic Integration: Problems and Prospects*. The panelists were Kar-yui Wong, Professor, University of Washington; Arindam Banik, Director, IMI Kolkata and Munim K Barai, Professor, Ritsumeikan Asia Pacific University, Oita, Japan. The moderator for the session was Chung Mo Koo, Professor, Kangwon National University. Prof. Chung Mo Koo stated that during the past few decades regional trade integration is moving ahead at a faster rate and bilateral Free Trade Agreements (FTAs) increased remarkably. Asia is also trying to trade more with the partners beyond the region. Prof. Banik highlighted that the Asian countries cannot depend on the advanced countries for economic growth and there lies a necessity to integrate the regional powers and creation of intra-industry trade should be stressed upon. There is huge potential for forward and backward linkages among the Asian nations. He dreamt of an Asian century characterized by cutting-edge innovations.

Prof. Wong mentioned that economic integration can take various forms, the most common being free trade agreements/areas. Nations are interested in entering into FTAs in order to promote business of some local firms. He highlighted on the advantages of or the motives behind entering into such FTAs by Asian countries in terms of competition, avoidance of taxes and tariffs, improvement of the economic welfare of the people.

The academic presentations focused on topics like Macroeconomic Policies, Risk Behaviour, Economic Growth, Equity Market, Corporate Finance and International Trade. The valedictory lecture was delivered by Achin Chakraborty, Professor & Director, Institute of Development Studies Kolkata. The theme for the lecture was *Ethics and Economics of Finance*.







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