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November 2013

Workshop Participants Learn Optimization Using Spreadsheets

by Edwin Bunag

In response to the need of educators, business analysts, and decision makers to upgrade their skills in the use of OR, an *Optimizing Decision Making through Spreadsheet Modeling* workshop was organized by ORSP on May 31 and June 1, 2013 at the Asia Pacific College in Magallanes, Makati City. The workshop was facilitated by a team of experts in the use of MS Excel Solver from De La Salle University's Center for Operations Research / Management Science (CORMS) headed by Dennis Beng Hui.

CORSP



Hands-on format facilitates learning for all participants.

The two-day workshop provided extensive and detailed guidelines to participants in developing basic decision models using a spreadsheet, analyzing and interpreting decision models and developing user-friendly interfaces. Participants were guided by facilitators in the step-by step details of designing, build-

ing, and analyzing models in the areas of investment, cash flow, budget, production, inventory as well as transportation planning. The technical workshop consisted of diverse segments of participants



Dennis Beng Hui emphasizes a point.

coming from the academe and business industry. Participants from Analog Devices, Inc. (Herwina Richelle Andres, Ronald Endaya, Lyn Kmantique, Antonette Laigo, Mary Joy Perido), Ateneo de Manila University (Jesus Lemuel Martin Jr). De La Salle University - Dasmariñas (Ma. Estrella Natalie Pineda, Leonor Amacio, Challiz Gigante, Renz Gabriel Rafon), San Sebastian College Recoletos (Christopher Lim), Divine Word College of Legaspi (Alnee Joy Azul, Aisa Marcelo, Lenly Podrido), and Holy Angel University (Ma. Elena Timbang, Flor Mangalino) successfully completed the two day workshop and were satisfied with the skills they acquired from the training.

The group is raring to use their new found skills and hopeful that ORSP will launch other such workshops on the use of other software for analysis and decision-making.◆

models in the areas *Participants pose with lecturers at the end of the workshop*



Forum Tackles OR Approach to Marketing by Edwin Bunag

Aware that the increasing global competition in most markets drives the continuous search for innovative approaches that will improve marketing results, ORSP hosted a technical forum aimed at sharing quantitative approaches to optimize marketing activities last August 10, 2013. This was held at the Leong Hall of the Ateneo de Manila University, which co-sponsored the event. The forum was only able to accommodate 518 participants, prompting ORSP to hold a second run on September 28 for an additional 385 participants.

The forum highlighted different functions of OR and its success in the field of marketing. The talks were given by experts in their respective fields: **Angie Castillo**, S & W regional commercial manager of Del Monte Pacific Ltd. and senior lecturer at the College of Engineering, University of the Philippines; **Francis Miranda**, ORSP President and Measurement Science Director at The Nielsen Company; and **Edwin Loma**, ORSP Director and Executive Director of JMI Consulting.

Castillo presented a clear perspective on how new trends in marketing research are evolving in her talk on "Evolving Approaches in Understanding Shoppers' Behavior." She shared her firsthand experience in business development, marketing, sales, and corporate planning. "Traditional market research methodologies will remain useful, but the techniques are evolving," shares Castillo. She also discussed and emphasized the role of OR in identifying levels of predictability of shoppers' behavior, identi-

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fying new market for emerging products and the risks involved, and determining how to make advertising and promotion initiatives more cost-efficient and targeted.

OR Applications in Retail and Consumer Panel Design is the topic discussed by Miranda. Among other applications, he discussed a procedure, which uses Mixed Integer Programming to ensure that household panel results are an accurate representation of the total population broken down by socioeconomic classification.

Loma's talk revolved around Bridging



Board takes photo with speakers, from left to right: Jaypy Tenerife, Francis Miranda, Malu de Guzman U, Alleli Domingo, Lowell Lorenzo, Iris Martinez, Rex Robielos, Angie Castillo, Jed Loma, Elise del Rosario, and Edwin Bunag.

the Gap Between 2016 Tourism Targets and Historical Data: A Quantitative Research Approach. He discussed and presented the use of quantitative analysis to describe and evaluate the marketing strategies and performance employed by the Philippine government in promoting tourism. He led the audience in investigating the possibility or impossibility of achieving the targets, given the developments in budget airlines or low-cost carriers offering lower rates, as well as government infrastructure projects such as roads and airports aimed at making the transfer of visitors to must-see destinations in the country more convenient.

Among the participants of the forum were students and faculty from Asia Pacific College, Ateneo de Manila University, De La Salle University-Dasmariñas, Technological Institute of the Philippines, University of the Cordilleras, Colegio de San Juan de Letran-Calamba, Enderun Colleges, University of the Philippines-Los Baños, Cavite State University, Batangas State University, Southern Luzon State University, Aquinas University of Legaspi, University of Asia and the Pacific, and San Sebastian College.♦





Open forum was lively; everyone took turns to ask their questions.



E. del Rosario awards certificate of appreciation to: (L to R): Angie Castillo, Francis Miranda and Jed Loma.





Audience listening attentively to the lecturer.





Best Paper Awardees Bryan Gobaco and Wesley Manfred Que (top) and Dennis Cruz, and Michael Gutierrez (bottom). receive their prize from Jaypy Tenerife and Jed Loma.





Members-only cocktails followed the last paper presentation.



25th Anniversary celebration acknowledges past presidents (L to R): Vic Reventar, Elise del Rosario, Jun Villoria, Dennis Beng Hui, and JC Mercado.

25th Anniversary Conference Focuses on National Development

by Elise del Rosario

Revisiting the objectives set 25 years ago when ORSP was founded, the anniversary national conference had as its theme **OR for National Development**.

The conference was held November 9, 2012 at the Richmonde Hotel, Eastwood, Quezon City. ORSP President Francis Miranda welcomed the participants and read a congratulatory message progress of regional economic integration in East Asia and globalization in the past decades. He pointed out how OR can play a key role by identifying factors that enable firms to latch on to these regional production networks. He emphasized how economic growth in the Philippines has not been as inclusive, as shown by the much greater decrease of poverty incidence in neighboring coun-



Plenary speakers Martin Schwarz, Lope Doromal and Josef Yap gave thought provoking perspectives on the conference theme.

from the International Federation of Operational Research Societies (IFORS) President Dominique de Werra.

As in the previous years, two ballrooms were fully packed for the morning plenary sessions led by Martin Schwarz, Lope Doromal, Jr and Josef Yap. Their talks touched on the various aspects of national development. Schwarz's *Linking Economic Value Added (EVA) to Operations Research for Better Performance Measurement and Decision-Making* dealt with metrics that unify and capture the value being delivered by different parts of an organization, which enable everyone to accurately describe their contributions to business objectives.

Doromal's talk on *Smarter Analytics* presented the enormous opportunity for organizations to convert information coming from social media, mobile phones, sensors, and so on, into actionable insights. Yap focused on the rapid

tries. He ended his talk on *The Role of the Manufacturing Sector in Inclusive Economic Growth* with some policy recommendations.

Seventeen papers were presented in six parallel sessions, with Jaypy Tenerife and Iris Martinez chairing the sessions. The six parallel sessions were classified into the following streams: *System Dynamics & Data Envelopment Analysis, Mathematical Computing, Decision Making & Strategy, OR for Development, Manufacturing & Distribution and Management Science Techniques.*

The panel of judges led by Rex Robielos decided to award two papers tied for the first place to: *A Product Line Strategy Model for Manufacturing and Marketing Tradeoffs* by Wesley Manfred Que and Bryan Gobaco of De La Salle University – Manila; and to *A Mixed Integer Non-Linear Programming Model and Single Insertion-Based Heuristic for Minimizing Total Time and Achiev-* ing Pareto Optimality Between Service Time and Transportation Time in Vehicle Routing Problem With Backhauls by Michael Gutierrez and Dennis Cruz also of De La Salle University. Close to 130 participants consisting of practitioners, teachers and students stayed until the sessions ended.

During the Business Meeting preceding lunch, ORSP President Miranda gave a brief overview of the activities for the year and presented plans in the drawing board. New members inducted were Lindley Bacudio of De La Salle-Canlubang, and Enrico Yee Jr. of University of Southeastern Philippines, Davao City.

The cocktails succeeding the last session was a member-only affair that saw some of the past Presidents of ORSP in the last 25 years, such as Elise del Rosario, Vic Reventar, Dennis Beng Hui, JC Mercado, and Jun Villoria reuniting and reminiscing about the early years of ORSP.◆



New ORSP Members Enrico Yee and Lindley Bacudio take their oath before President F. Miranda.



Audience digesting speaker presentations.

Student Congress Declared a Success

by Jaypy Tenerife

The 2013 ORSP Student Congress with the theme *Transcend: Breaking Barriers for National Development* was held on January 26, 2013 at the Multipurpose Room of Henry Sy Sr., De La Salle University, Taft Avenue, Manila. It was organized in cooperation with the Industrial Management Engineering Society (IMES) of De La Salle University. Setting a a new record in terms of number of participants and financial outcome, the Congress was headed by Rafael Sison of Ateneo De Manila University, John Lee of De LaSalle University, and Klar Tandog of University of the Philippines.



The affair showcased the Annual Inter-University OR Quiz Competition, Best Paper Competition, Variety Show, and two plenary talks from invited resource persons from the academe and industry.

The ORSP affiliated schools that participated in the congress were:

Asia Pacific College, Ateneo De Manila University, De La Salle University – Manila, Lyceum of the Philippines – Laguna, Mapua Institute of Technology, Southern Luzon State University, Technological Institute of the Philippines - Quezon City, Technological Institute of the Philippines – Manila, University of the Philippines – Diliman, University of the Philippines – Los Baños, and University of Santo Tomas.

Declared winners of the 2013 OR Quiz Contest were: University of the Philippines, Diliman (1st place), Ateneo De Manila University (2nd place), and De LaSalle University, Manila (3rd place). Francis Miranda and Shella Marie Tan-Mariscal, ORSP President and Vice President, respectively, served as judges with Jed Loma as Quiz



Mr. Sison (left most), Mr. Lee (5th from left), Ms. Tandog (4th from left) with the rest of the officers of the ORSP Student Federation for SY 2012-2013 during the 2013 Student Congress at Henry Sy Sr. Hall, De La Salle University, Manila.

Master. Eileen Ocampo and Joab Wilden of University of Santo Tomas were declared winners of the variety show.

This year's winner of Best OR paper is entitled "Capacity Planning Tool of the VISA Program of Teletech Holdings, Inc., Through The Employment of Linear Programming Techniques" by Abibuag, Baroro, Draper, Leoncito, and Sumaljag from University of the Philippines, Diliman. The judges of the paper competition were: Lourdes Lasian of ECCI International Consultancy, Jocelyn Delgado from the faculty of Industrial Engineering, Technological Institute of the Philippines - Manila, and Floudeliz Lindo, an Entrepreneur and OR Practitioner.

The after-activity assessment that followed showed that the event had an effective program delivery, efficient response to the needs of the participants, and well-planned flow of activities throughout, prompting most to declare the event a success! ◆

(Cont. from page 5) **President's Corner...**

was attended by more than 500 participants, most of them Mathematics, Indus trial Engineering, and Business Management students from more than 10 different schools, including those from Batangas, Cavite, and Tarlac. The Ateneo Leong Hall was packed to capacity, turning away others who wanted to attend. ORSP conducted a rerun on September 28, again packing the Leong Hall.

Similar to last year, 2013 will culminate with the ORSP National Conference on November 8, 2013 at The Richmonde Hotel, Eastwood City. The theme for this year will be *"Keeping Pace with the Business Analytics Revolution"*.

ORSP has lined up several activities for 2014, including the ORSP Student Congress, a Technical Workshop on Spreadsheet Modelling, a Technical Forum on Finance, and the National Conference focusing on using OR for the environment. ORSP is also planning to conduct the 2014 conference outside Manila. Watch out for more information on these activities at http://www.orsp.org.ph/.◆

<u>President's Corner</u> The Year in Review

by Francis Z. Miranda



This column takes a brief look at the activities for the past year. 2012 was a historic year for ORSP as it marked our 25th anniversary. 2012 activities culminated with the **National**

Conference of November 9 with the theme "OR for National Development". During the plenary sessions, we were fortunate to have 3 distinguished speakers including Martin Schwarz, SVP at Stern Stewart & Co. which is based in Singapore, Lope Doromal Jr, Chief Technologist at IBM Philippines, and Dr. Josef Yap, President of the Philippine Institute for Development Studies.

ORSP started 2013 with the annual **Student Congress**, highlighted by the OR Quiz Bee. As one of the judges of the OR quiz, I was fortunate to be a part of one of the most exciting OR quiz competitions in recent years. The winner was not decided until the final question. Eventually, UP-Diliman emerged as the winner, followed by Ateneo de Manila in second place, and De La Salle University-Manila in third place.

The next ORSP event was the **Technical Workshop** called "Optimizing Decision Making Through Spreadsheet Modelling" conducted by the Center of Operations Research and Management Science (CORMS) of DLSU-Manila. It was held at the Asia Pacific College on May 31-June 1, and was attended by mostly faculty members, as well as some representatives from the industry. ORSP is planning to make this an annual offering as a service to its members and the general OR community.

August 10, 2013 was the date of the **Technical Forum** at Ateneo de Manila University entitled "*OR for Marketing/ Marketing Research*". Two speakers came from the ORSP Board – Jed Loma and I – and Angie Castillo, Regional Manager at Del Monte Pacific, was the third one. The focus on marketing proved to be a popular one, as the forum

Welcome New Members!

This newsletter issue welcomes new members who have joined the ORSP Team.

From the Academe are: Mary Caclini, Professor in Ifugao State University – Lagawe Campus; Jose Rafael del Rosario, Special Officer, Department of Transportation and Communication (DOTC); Alice Descallar, Faculty, De La Salle University- Dasmari-ñas; Frederick Patacsil, ICT Department Chairman, Pangasinan State University; Christine Lourrine Tablatin, Instructor, Pangasinan State University; Edward Perez, Professor, Navotas Polytechnic College; Edwin Valeroso, Associate Professorial Lecturer, De La Salle University- Dasmariñas; Abegail Villanueva, Faculty, Lyceum of the Philippines-Laguna and Juanito Chan, Professor in Ateneo Graduate School of Business..

From Industry are: Kurt Paolo Sevillano, Consultant, Skyline Marketing PH; Jocelyn Adela Annabelle Escobar, Corporate Strategic Planning Office Consultant, Manila Doctors Hospital and Angelita Castillo, Regional Manager, Del Monte Pacific Ltd.

Institutional member joining ORSP is **Batangas State University**, which designated **Aile Amorado** and **Suzette Mercado** as its representatives. \blacklozenge



Edward Perez

Edwin Valeroso

Angelita Castillo



Jose Rafael del Rosario



Kurt Paolo Sevillano



Abegail Villanueva



Mary Caclini



Frederick Patacsil



Christine Lourrine Tablatin



Juanito Chan



Batangas State University





ORSP acknowledges IFORS News (<u>http://ifors.org/web/newsletter</u>/) for the articles on Analytics contained in this section. They were taken from the September 2013 issue (<u>http://ifors.org/web/wp-content/</u> uploads/2013/09/september-2013.pdf) and were deemed relevant in view of the 2013 Conference theme.

IFORS News is a quarterly publication of the International Federation of Operational Research Societies (IFORS), of which ORSP is a member. The newsletter is edited by ORSP's own Elise del Rosario, who is IFORS Past President.

Analytics – Embracing the Trend

Anne Robinson, INFORMS President

It is a rare event these days to open a business publication, walk through an airport or even participate in a C-level meeting and NOT see or hear reference to analytics. Recognized as the currency of business, analytics are empowering decision-making at new levels. A trend that started with CIOs is spreading throughout the C-Suite – Everyone wants ANA-LYTICS! "Big Data" has even become common lexicon around the board room.

Companies are also beginning to understand that the old days of analytics being simply sql queries and parameterized reporting is not going to differentiate them amongst their competitors. Basic analytics have become table stakes. To find the true intelligence in their business, organizations need to go beyond the basics and harness the essence and insight in their data.

What exactly do we mean when we say *analytics*? INFORMS' official definition is: *Analytics, the scientific process of trans-forming data into insight for making better decisions*

Within analytics, three categories have become the standard nomenclature:

Descriptive Analytics refers to analytical capabilities that characterize what is happening now. This dimension of analytics typically refers to preparing and analyzing *historical* data (using techniques like data modeling, visualization, and regression analysis)

Predictive Analytics described what will happen. These analytics predict *future* probabilities and trends (data mining and predictive modeling).

Prescriptive Analytics evaluates and determines *new* and different ways to operate to achieve a specific objective (optimization and simulation)

The trends in analytics are undeniable. A simple Google search will show the steady increase in interest in analytical capabilities from all over the world. Employment opportunities for experts in this area will also prosper. Indeed.com, an online global jobsite, have experienced an increase of over 15,000%

in analytics related job postings between 2011 and 2012. McKinsey & Company examined the growing demand for analytics professionals in the U.S. and the dearth of trained people in the field. They predict that demand for deep analytical talent in the U.S. could be 50-60% greater than its supply by 2018. Gartner estimates that only one third of the 4.4 million data scientist roles available worldwide will be filled by 2015.

What does this mean for Operations Research professionals? How do we embrace this trend? These were the exact questions INFORMS wanted to answer. In 2010, INFORMS engaged CapGemini, a leading global consulting company, to understand the market trends around analytics, the relationship between analytics and operations research, and which potential products and services would be relevant to the analytics community and are missing today. The eight week study resulted in many insightful findings. One of the most interesting takeaways was around the perception of O.R. Operations research was seen as a toolbox to solve specific problems, whereas analytics was a capability core to the business. Analytics was accepted as part of an organizational culture and part of "business as usual." Analytics was perceived as enabling business value in addition to academic integrity delivered by operations researchers.

The study also revealed a great demand for analytics talent (as we subsequently learned from other organizations). As Operations Research professionals, it is our responsibility to link the demand for expertise in translating data into insight with the skills and capabilities within our field.

At INFORMS we are driving this in a number of different ways. Our flagship magazine, *Analytics*, continues to deliver articles on relevant operations research techniques and success stories. The online publication has witnessed a steady increase in subscriptions and viewership of the articles. The Executive Edge column is written by executives for executives, and presents relevant topics and experiences from that perspective.

Academia is also responding to the analytics trend. University academic programs where traditional operations research classes were taught are creating, rebranding, or expanding their offerings to include analytics courses and degrees. The most seasoned programs in the US are North Carolina State University's and Northwestern University's Masters in Analytics programs. In response to the findings by CapGemini, INFORMS is now offering a Certified Analytics Professional (CAP ®) certification. The CAP certifies knowledge of the end-to-end application of the analytics process. It was created to ensure quality within our profession, develop standards, identify individuals with appropriate breadth of knowledge, ensure continued competency, all within a neutral environment (software & vendor agnostic). (For more information go to: https:// www.informs.org/Certification-Continuing-Ed/Analytics-Certification)

Additionally, INFORMS expanded its services to include continuing education courses. Initial topics were chosen based on requests from members as well as external trends. The first two courses being offered in-person this year are "Data Exploration & Visualization" and "Essential Skills for Analytics Professionals." They were developed based on experts in those specific domains, as well as with an adult education specialist to ensure interest and alignment for more seasoned learners. The expectation is that they will be offered globally and eventually online.

While the University Programs, CAP Certification and Continuing Education speak to the supply of analytics professionals, it is also important for organizations to be able to assess their demand and source necessary analytics talent. As such, INFORMS has created an analytical maturity model that will allow companies to understand their maturity and requirements. Moreover, a professional job market for analytics talent is now available in person at the major INFORMS conferences as well as online through a newly relaunched job marketplace, now called the Career Center. It is hoped that all of these efforts will strengthen and enrich our community by connecting the talents and expertise of operations research professionals with the overwhelming demand for analytic skills.

The arrival of analytics is a significant development for the Operations Research field. Analytics is bringing growth to industry, improvement to government, and a realization in the public that math modeling contributes significantly to our lives. At its highest level, advanced analytics, analytics is almost inseparable from the methods that have made O.R. distinct and powerful. All our associations and societies will benefit significantly if we recognize analytics' prominence and plan for analytics to play an important, and welcome, part in our future.♦

Book Review Quants for Quality Decision Makers by Hans Ittmann

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Keeping Up with the Quants – Your Guide to Understanding + Using Analytics by Thomas H Davenport and Jinho Kim, 2013. Harvard Business Review Press, Boston, Massachusetts, USA. pp 240, ISBN-10: 142218725X (hardcopy), \$18.69; ISBN-13: 978-1-4221-8725-8 (e-book), \$14.99.

Merriam-Webster defines "quant" as "an expert at analyzing and managing quantitative data." Although as Operations Researchers, we can exclaim, "that's us!", this book is not just for us quants.

A lot has been written recently about the rise of "big data" and how it should be used and analysed to assist and improve managerial judgement and decision making. While there are many people qualified to manage and analyse big data, the lack of know-how in understanding and using data optimally brings an increasing need for those who make decisions to have an understanding and insight into analytical thinking. This is the objective of the book, stated eloquently in the introductory paragraph, as follows: "We live in a world awash with data. Data is proliferating at an astonishing rate – we have more and more data all the time, and much of it was collected in order to improve decisions about some aspect of business, government or society. If we can't turn that data into better decision making through quantitative analysis, we are both wasting data and possibly creating suboptimal performance. Therefore, our goal in this book is to show how quantitative analysis works - even if you don't have a quantitative

background – and how you can use it to make better decisions."

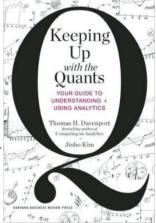
This rise of big data implies that organisations are going to require analysts to do detailed analysis but organisations also need people to make decisions and take actions based on these results. The latter, non-analysts and non-quantitative people, are the intended readers of this book which aims to make them better customers of data.

Credited with "creating", but maybe more importantly, general-

ising the use of the term *analytics*, Thomas H Davenport is a very credible author of a book on a guide to understanding and using analytics. *Keeping up with the Quants* follows two other books he co-authored, namely, *Competing on Analytics* and *Analytics at Work*.

In this book, Davenport and Kim define clearly what they mean by "Analytics" and "Big Data" while tracing the rise of the latter to the exponential increase in computing power and widespread availability of internet and social media. They deal, to a great extent, on the increasing necessity of analytical thinking and the consequent importance of the "informed consumer of Analytics". Analytically-minded executives who ask the right questions without necessarily becoming expert quants themselves are highlighted throughout the book through a lot of illustrative examples.

The authors present as a framework the three major stages of





News from the International OR Community



analytical thinking and the quantitative components within each stage, as follows:

Chapters 2 to 4 are devoted to each of these stages and steps within the stage. Even if slightly different methodologies and

decision makers can be cultivated or learned. This is presented fairly comprehensively and in an easy-to-understand manner.

The final chapter is devoted to the topic of working with quants.

Framing the problem Solving the problem Image: Problem with the problem withe problem with the problem with the problem withe prob

Various relationships that should be in place are clearly spelled out, in particular, what the quantitative analysts should expect of business decision makers and vice-versa.

In emphasizing the importance of improving analytical thinking for business people, the book encourages them to learn something about mathematics and statistics, as well as to understand and question assumptions. The quants on the other hand, are enjoined to: learn the business: be interested in the business

terms are used, most Operations Researchers would recognise and feel comfortable with these stages and steps. Framing, or defining the problem, consists of a two-step process of problem recognition and reviewing previous findings. Advice is provided on conducting these steps while emphasizing their iterative nature. Many examples, even in the chapter on framing the problem, are explained through following the entire process fairly diligently. Focus on the decision maker or manager is consistently kept in the discussion on the analytical process.

The authors show that the second stage, frequently considered to be the core of analytics, is more structured and better defined. This stage, where quants are called in to assist, is covered in detail. Such aspects as: three ways to assign measures to variables; data collection phase with both primary and secondary data; and key statistical concepts and techniques are described. The latter is fairly comprehensive but in the end some of this may be beyond the comprehension of the average decision maker. In many instances, there needs to be a greater differentiation between what is relevant to the quant and to the customer/user of the model.

The final stage, possibly the most crucial stage in any analytic study, is communicating the results and action required. A presentation of the different types of visual analytics and their purposes makes the reader aware of the different ways of presenting results, without losing focus on importance of communication is in any modelling exercise.

An entire chapter is devoted to an area that undoubtedly needs much more emphasis in the operations research world, namely, creativity in quantitative analysis. It is stressed that "the most successful uses of analytics are highly creative, and creativity is an important component of successful analytical approaches to problems". The four stages of creative analytical thinking are labeled: preparation, immersion, incubation and insight. Chapter 6 outlines how the analytical capabilities required by problem; explain technical language; be willing to develop a relationship; and never make the decision maker feel stupid. A fascinating illustrative example describes the development of a forecasting model for CISCO. A high quality model was required, the success of which depended on the buy-in of management. To ensure implementation, the project team explained statistical techniques in a way that ensured confidence in the model.

Although **Keeping up with the Quants** is aimed mainly at exposing decision makers to analytical thinking, the book has much to share with quants. Davenport and Kim have successfully opened the doors to the magical world of mathematics and quantitative analysis for decision makers through this book.

Public-Private Sector Cooperation Results in Analytics Specialization Tracks

Manila, Philippines - The Commission on Higher Education (CHED<u>http://www.ched.gov.ph</u>) and IBM (<u>http://www.ibm.com/ph</u>) announced last May 31, 2013 that specialization tracks on Business Analytics for Information Technology Education (ITE) and the Bachelor of Science in Business Administration (BSBA) Programs are ready for implementation this school year 2013-14. The CHED Memorandum Orders were passed and co-developed in collaboration with IBM, taking into consideration the paradigm shift and growing demands of the local and international business landscapes, and are geared towards helping transform the Philippines to become more globally competitive across all industries.

The growing demand for leaders to make better and faster business decisions makes business analytics and optimization a huge global market opportunity, estimated at about US\$160 billion by 2015. High volume data continues to come from both structured and unstructured sources, including social media. Today, organizations can leverage advanced analytics to address market uncertainty, complexity, volatility, and revenue growth. However, according to Gartner Big Data demand will reach 4.4 million jobs globally by 2015, but only one-third of

those jobs will be filled due to a lack of trained skilled professionals globally.

"Recognizing the impending global talent shortage, CHED and IBM, in collaboration with other key higher education stakeholders, sought to address this challenge that we face as a country. These newly approved specialization tracks on business analytics for ITE and BSBA Programs bring us a step closer to preparing our nation to capture and lead in this big global analytics market opportunity," said Dr. Patricia B. Licuanan, Chairperson of CHED. "We are elated and encouraged that several top notch higher education institutions have already signed up and have committed to implement these analytics electives this coming school year."

Some of the early adaptors have

already rolled out the new analytics subjects this June include the University of the Philippines - Diliman, Ateneo de Manila University, De La Salle University, Asia Pacific College, University of Santo Tomas, College of St. Benilde, Universidad de Manila, Jose Rizal University, Republic Central Colleges and Araullo University of the PHINMA Education Network.

Legal Service.

"Data is quickly becoming the most important natural resource in the world, and companies who have talent with the best skills to help them take advantage of Big Data will have a more promising future. With the right academic development and professional training, the Philippines has the potential to be a leading incubator for advanced business analytics talent globally," said Mariels Almeda Winhoffer, President and Country General Manager, IBM Philippines.

"CHED's commitment to developing the world's future leaders right here in the Philippines, combined with IBM's global analytics expertise will help ensure that the country is well positioned to be a global center for advanced analytics, where industry leading best practices will be developed and implemented."

To prepare Filipino talent for the next wave of growth, CHED and IBM forged an agreement in December 2012, to cooperate and develop an analytics education master plan that will enable and position higher education institutions in the country for leadership in analytics. IBM, in collaboration with CHED, proactively consulted with the business community, tapped institutions that are Centers of Development (CoDs), and Centers of Excellence (CoEs) to develop specialization tracks focusing on business analytics.

IBM and CHED's vision of a comprehensive education master plan to help capture the huge global potential of the analytics market, took shape in September 2012 when an international

> team of IBM volunteers worked with the Commission under the IBM Corporate Service Corps (CSC) program. At the end of the month-long assignment, the team provided recommendations to CHED, identifying ways to position the Philippines as an analytics education and technology hub for the region. The IBM CSC program, often called the corporate version of the "Peace Corps", was developed to help IBM employees become effective 21st century global leaders and citizens while helping solve complex problems in developing countries like the Philippines. The Corporate Service Corps is a global pro bono IBM initiative launched in 2008 that sends hundreds of IBM's brightest employees into emerging markets every year. These experts provide small businesses, non-profits, nongovernmental organizations, and

educational institutions, expertise and professional skills to help improve local conditions and foster job creation.

The Business Analytics Specialization Tracks use an integrated approach and take into consideration the interrelationships among functional areas of business as well as sensitivity to the economic, social, technological, legal and international environment in which business must operate. The objective of the program is not simply to impact basic business knowledge, but to instill and nurture import qualities and skills to the students that are essential for future business leadership and organizational success.

YOU'RE INVITED!



All members are invited to the ORSP Christmas Party to be held on December 5, Thursday in Acropolis.

Venue: 2 Acropolis Drive, Acropolis Subdivision, C-5 Bagumbayan, Quezon City (across Eastwood City)

Please call Jenny at 439-9496 or 0927-877-5219 for questions and directions to the venue.



Photo Shows (L-R): Seated -- Mariels Almeda Winhoffer, President and

Country General Manager, IBM Philippines and Dr. Patricia B. Licua-

nan, Chairperson of CHED. Standing -- Dr. Vincent Fabella, Presi-

dent, JRU, Tata Medado, APC, Fred Pascual, UP, Mencu Cueto-Pacana,

Dean, School of Management and Information Technology, De La Salle

College of St. Benilde, Atty. Carmelita Yadao-Sison, Director, CHED