IBM White Glove Events

Moderator: Tim O'Bryan
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Again, today's event is being recorded. We will pause for a moment to initialize the recorded. Please standby.

We would like to welcome everyone to today's web event titled introduction to predicted analytics with SPSS.

At this time, it is my pleasure to turn the floor over to Mr. Tim O'Bryan.

Mr. O'Bryan, you have the floor.

Tim O'Bryan: Thank you and welcome everyone to this installment of the financial performance insider webcast series. Today we're featuring introduction to predictive analytics with SPSS.

This webcast series is being brought to you by the IBM Cognos Innovation Center for Business Analytics.

And just a brief comment or two about the innovation center, we are a global membership community consisting of over 6,500customers. We also have third-party thought leaders that are part of our community across all practice areas within what we call business analytics which I'll explain in more detail in just a few moments and all of this work that we do with our global membership community with these thought leaders across all of those practice areas of business. analytics.

All of this work that we do, also, with the innovation center team produces a number of benefits to our membership that we make available. One of those things is this webcast which you all are participating in today.

We also deliver a number of live workshops. There's a few other monthly webcasts we do as well. You probably all heard of IBM Cognos performance blueprints. We've got thought leadership articles and best practice studies,

customer success stories and podcast, and a number of other things that we make available to our community.

All of these information's that we make available can be easily found if you just download the IBM Cognos innovation center widget and that can be found at ibm.com/cognos/innovation-center. And then a follow up communication will make sure you get information to download that widget. In that way you can find out what's coming on demand from the innovation center. There's a lot of great stuff that you can leverage for your own purposes.

Now, just real briefly, when we talk about business analytics, I think it's important that we provide a quick explanation of what we mean when we talk about business analytics. And we're really talking about four different areas or main categories that make up business analytics and that's business intelligence, financial performance and strategy management, advanced analytics including predictive which we'll get in to more detail in a few minutes, and then analytic application.

IBM is able to help clients optimize their performance across the enterprise or bifunctional needs and that's through, let's first start, with business analytics – excuse me – business intelligence. We're talking about, query, reporting, analysis, scorecards and dashboards enable decision makers across the organization to easily find, analyze and share the information they need to improve decision making.

Another component of business analytics is called advanced analytics and that's data mining, predictive modeling, what is simulation statistics, and text analytics to identify meaningful patterns and correlations and datasets to predict future events and assess the attractiveness of various courses of action.

Thirdly, financial performance and strategy management. That is budgeting and planning, financial consolidations, scorecarding and strategy management, financial analytics and related reporting capability to help simplify structure and automate dynamic and sustainable financial performance and strategy management practices.

That last component is advanced analytic application. We're talking about applications that package business analytic capability, data models, profits, workflows and reports to address a particular domain or business problem. For example, customer workforce, supply chain and financial performance management.

And IBM helps their clients optimize business performance through actionable insights for decision makers, consistent, accurate and trusted information, and rich industry solutions, proven practices and professional services.

Looking at business analytics in another way, really what we're doing is taking you through the process through different solutions to basically provide the information the decision maker need in order to make a decision.

And if you're – it looks like I just lost my connections, but essentially I can tell you pretty briefly here which is, a decision maker is going to ask three questions.

The first is going to be, what's happening? How are we doing? And you're typically doing that through measuring and monitoring your key performance indicators through scorecards and dashboard or other visual aid in order to understand how the business is doing. Are we on target, are we above target, are we below target?

And then, based on that information you want to understand in context why are we on target, why are we below target, and you want to drill through in context and answer that next question which is why, why are we on target or off target.

And really through context we'll provide you that kind of understanding that you need to then answer that last question to make that decision is what should we be doing. And that basically follows your budgeting and planning solutions, predictive analytics, scenario planning, what if scenarios. And that last question, that final component answered in business analytics if you will.

So, hopefully, that gave you a quick understanding of what it is when we talk about business analytics. And, again, just for information on the IBM Cognos Innovation Center you can go to ibm.com/cognos/innovation-center.

So thank you for that everyone. I appreciate it. And now I want to transfer the microphone over to my colleague (Brent Winsor), director of product marketing for business analytics at IBM. (Brent) is going to talk about predictive analytics within the umbrella of business analytics.

(Brent), you have the floor.

(Brent Winsor): Thank you, Tim, and welcome everyone to our call today. I'm quite happy to present this new topic to this audience.

I'm just setting up my presentation here so bear with me one second here and let's get it into presentation mode. And there we go.

So, today we're going to talk about and provide an introduction to predictive analytics with SPSS. And I'm sure all of you are aware IMB acquired SPSS last year so we're very excited about partnering with them. They've got some great technology which I'll show you later in the presentation.

So ultimately, what I want to show you today in this presentation is how you can extend your current BI and performance management and investments by enhancing your analysis capabilities with predictive analytics from SPSS. And SPSS helps you analyze patters in historical and current transaction data, and basically helping users anticipate potential future outcomes.

But the ultimate goal for that, an organization and user can proactively act upon this insight, distribute predictive intelligence through relevant reports and dashboards and so on. And also, see, I can reflect these operational outcomes in your financial planning process.

So just quickly in an introduction front I'm going to quickly go through the first part because Tim touched on it. I know all of you are Cognos customers and you're members of the innovation center community so a lot of these stuff, I'm assuming, that you've seen and know. But we'll do a quick

introduction talking about some of the current business challenges today, CIO priorities, and high performance organizations.

Business analytics defined hinges to that so we'll go to that quickly. Some of that empower Cognos. Tim touched on that.

We'll look at the software, how it addresses those three questions that Tim discussed in a little bit more detail. Then we're going to go into more detail in SPSS. So we're going to talk about the statistical analysis capability, provide a demo on that.

We're going to look at the predictive analytics capability and then show a demonstration that fuses IBM and Cognos 8 business intelligence with TM1 with SPSS going through a marketing campaign optimization scenario. And then we'll quickly talk about industry solutions we have and then a summary.

So, quickly, everyone knows the world is changing. Organizations are now able to make faster and better informed decisions that drive smarter outcomes. And that's because clients are becoming smarter with intelligence being infused in everything around us. So if the system to the planet becomes smarter we have an opportunity to open up meaningful new possibilities for making the world work better. A more productive, more efficient, more sustainable, and more livable.

So what do we mean when we talk about a smarter planet?

Three things have brought this about. So the world is becoming instrumented. So, here in 2010 there's a billion transistors for human each one costing (110 millionth of a cent). The world is becoming interconnected. So with a trillion network of things, whether it'd be a car, a roadway, a pipeline, appliance, pharmaceutical, whatever that may be, the amount of information created by those interactions grows exponentially and all things are becoming intelligent.

So algorithms, powerful systems can analyze and turn this mountain of data and ask for decisions and actions that make the world work better and smarter.

So, there are several factors driving the need for a new way of looking at information and the way we make decisions based on that information. So we think of the change in the world today.

That instrumentation, the interconnectedness intelligence it produces a massive, a lot of new information, from new sources which you'll need to leverage it.

So this exasperates some of the challenges we have been dealing with for a while now just on a whole new scale.

The number one, involving the digital data. The data explosion, of course, but also shifts to the nature of data. So once virtually, all the information available to the process was altered by someone. Now that kind of data is being overwhelmed by – excise me – machine generated data and that's coming out of sensors, RFID, meters, microphones, surveillance systems, GPS and so on.

You get a variety of information. So with this expansion of sources comes a large variance in the complexity of that available data.

So it's very noisy, lots of errors and there's no time to cleanse it in the world of real-time decision making. And then it's a velocity of decision making.

So this is about optimizing the speed of insight generated as well as confidence that the decisions and actions taken will yield the best outcomes based on more proactive planning around the managements and use of information sources creating firm or advanced predictive capabilities.

So we combine these factors together. It puts significant strain on the ability for an organization to optimize their business for competitive advantage so, you know, companies can't determine what is the important information to base decisions on. One and three managers frequently make decisions based on incomplete information. One and two don't have access to the information across the organization needed to do their jobs and have inability to predict. So three and four business managers say more predictive information would drive better decision.

And that's why we're very excited to be partners with SPSS and why we're presenting this today.

So business analytics – Tim provided a definition for that. It's become a prime focus area for organizations. So, a recent IBM global CIO study interviewed 2,500 CIOs worldwide and business analytics was the number one area of concern for these executives.

So these executives along with their peers at that senior level and that will be, you know, the chief financial officers, chief technology officer, COOs and chief executive officer. They recognize that there's a huge opportunity to improve efficiencies and leveraging the data that is captured and turned in information.

Now, the lack of insight as a challenge for so many organizations means that companies who do or have invested in improving their ability to gain business insight are more likely to achieve better performance. So that recent study or our recent CIO study from IBM GBS shows that objective financial data validates that decision making supported by business insight contributes to enterprise out performance.

So those companies that had better insight outperforming three critical metrics – revenue growth, earnings before interest taxes, depreciation and amortization, and return on invested capital. All very important metrics.

So the reason insights are delivered through business analytics, you know, many factors affect performance, the one factor that stands out as the most critical and the most fluid – the critical factor that it happens at every level, every function and every region of your organization so every one of those decisions can be proved upon based on identifying actionable insights. And these insights are pulled from information – the information people have on hand. So in order to insure informed and better decisions, there must be a foundation of trusted information.

So, just quickly, IBM business analytics delivers actionable insights for decision makers at all levels of your organization enabling them to optimize business performance.

So, Tim touched on these three questions. I'm not going to go into it a whole lot of detail, but IBM in BI and performance management it can look at how we are dealing with dashboards and scorecards, why are we on or off track, that's – reporting query and so on, and what should we do next. And that's with analysis and planning.

A little later in the presentation I'll show you how the addition of SPSS enhances these – the power to address these three questions.

And just quickly, with Cognos, BI IBM software they can really satisfy the needs of all business users. So, whether you're an executive looking for an (added line) view of operational and financial performance in a dashboard, you're a business analyst, you want the ability to explore and analyze data from multiple sources, you know, the casual business user wants access to – easy access to information or the ability to, at least, automatically receive that information just to help them do their jobs.

Of course, a business manager wants fast access and contribution to, well, the information to make better business decisions. So, really, whether you're a CFO, an executive, a business analyst, a CIO, Cognos can address their needs or requirements.

So, Tim touched on those three questions on how we're doing and you really address – to get that snapshot of performance you leverage dashboards and scorecards.

And, you know, dashboards provide a highly visual at-a-glance view of information to ensure, you know, executives and business managers can quickly focus on the areas of performance that need attention and action. They help monitor business. You know, are sales trending up or down, am I maintaining my margin, et cetera.

Now, scorecards do provide a snapshot of performance information, but it's really around tracking and they're very specific in what they show, tracking performance against your strategy. So, with a scorecard you define your strategic or tactical objective. There's key performance indicators attached to them to show a measure of success against your strategic objective.

They support methodology so more often than not when an organization implements a scorecard there's a specific management methodology attached to it or driving it. Like a balance scorecard for instance.

And ultimately, organizations that use scorecards typically outperform their competitors through the ability to track their performance, ensure accountability and ownership and, you know, most organizations don't successfully execute against the strategy because they don't communicate it out and employees and teams can align their projects or build the activities to support the strategy. So, scorecards help communicate strategy across so that everybody is aligned.

And then when we get, you know, a snapshot of how you're doing in scorecard dash you'll want to get to the why behind business performance. And you can achieve that through ad hoc query that provides, you know, self-service reporting, access to data, easy sorting and filtering really to help people in the organization find fast answers to business questions.

And, you know, Cognos well regarded for very powerful and market-leading business intelligence reporting. And with Cognos you can address the full breadth of report needs, deliver consistent information across all types of output.

You can personalize and target the individuals without having to re-author. And, you know, you can reuse queries, analysis, and so on. And, also, you can consume these reports on mobiles devices which is a great benefit for mobile workers, executives, et cetera.

Now, if you want to dig deeper into why and that's possible, better outcomes, you know, it's all the recognizing patterns under analysis, organizational performance and the factors that drive them. So, you know, business people

can drag and drop information, the charts lists and crosstabs in each rack to view the need and level of detail and examine it from all points of view.

So IBM Cognos lets you place the best and worst performers in the same view to compare and contrast behavior in different context. You can conduct this analysis in Microsoft Excel and save it to a BI report for instance.

Now, business is continuing to understand how to better allocate and optimize resources and understand how these decisions affect the various cost centers or investments. So IBM Cognos TM1 allows, you know, finance and business users to analyze their key performance drivers and use the results for this analysis to model and test, you know, what are scenarios, compare best-worst case projections, reorganize and reshape information, and even save off different versions for comparison. So this empowers the business to make faster and better decisions, comparing the value and cost of alternative course of action to the status quo basically to build strong business recommendations and make strategy change grounded in facts. So this allows them to respond quickly to internal and external business drivers and optimize business performance.

So, let's get to SPSS and the value add.

So, we've seen these three questions, you know, from the how we are doing perspective. With the value add of or the additional value that SPSS brings, you know, you not only have your standard key performance indicators available on your dashboards and scorecards, you can also track key performance predictors.

So here you can see both leading indicators as well as the future status of issues managers are tracking.

You can get new insights for data collection. So you can augment the type of data you are seeing. With survey data, for instance, unstructured data that provides additional and unique insights for seeing the whole picture.

You know, using IBM as a market-lead in reporting you can broadly distribute results from statistical and mining models. You can also do that within a

dashboard as well. So ensuring that your decision makers across the organization get those insights or get that information. And you will appreciate the business oriented data mining modeling environment.

So here, one of the great things is getting that predictive analytics for a deeper understanding of data and building on a predictive model to finance associations and help make better decisions moving forward.

And then, finally, you know, predictive capabilities help enable time series forecasting. So, a lot of value to really complement the Cognos software capabilities.

So, you know, we talked about the predictive capabilities. You know, for instance, if you are a pharmaceutical sales manager, the power of SPSS, you know, can help predict regions where doctors prescribe high volume of medication. If you're a telco call center rep or instance, you know, they can apply social relation to customers to help prevent churn. A loan officer can adjust credit lines of transactions occurring to account for risk fluctuations.

Another example would be, someone who works in retail sales. So, you can determine discount levels or, you know, select people at the time of sale instead of an offering to all. So you can target the right people at the right time with the right offer.

So, again, very powerful to help various, you know, line managers, employees, across different types of industries, but predictive analytics really can help drive and optimize business performance.

So the first part I'd like to talk about is statistical analysis.

So SPSS foundational technology leverages sophisticated mathematics, helping researchers validate assumptions and tests hypothesis. So, from testing opinions on the way this product feature ideas or the viability of a political candidate to the advocacy of a new drug treatment or supply chain allocation.

Statistics enables an organization to look for benefits on an organization and validate whether these views are based on facts.

So gut feeling and instinct, they're only as good as the experience that is brought to the table. Statistics will make you confident in the results and the final outcomes of those decisions you make.

So, SPSS statistics, the worlds leading statistical software suite, it's used by commercial, government, and academic organizations to solve business and research problems. So it's really quite simple.

It helps people validate or disapprove assumptions faster efficiently using a rate statistical capability at any given time. It gives us flexible access to a host of statistical analysis power. So meeting the needs of the most experienced down to the learner or average user, if you will.

And finally, it helps organizations make the most of their analytical resources scaling from the simplest initiative to the most widespread endeavor. So, you know, the bottom line is that SPSS statistics, the most accessible stats tool on the market today is helping organizations to apply mathematical discipline to their decision making.

So with that I'm going to quickly go through a short demo on SPSS statistics.

And doing this dataset we're looking at sales date for vehicles. Information about vehicles sold, the make model type car versus chart total sales, et cetera. And our goal here is to identify attributes and predictors which help explain why we sell that vehicle.

So the first step here is we're going to generate a simple graph to get an overview of the data. One of the ability is share. So it's a drag and drop graphical user interface that makes it easy to graph. And this is traditionally the first step for data analysis. So what we're doing is we're plotting manufacturer versus total sales split out or paneled by car versus truck.

So as you can see it's easy to use, drag and drop ability, and it helps just gives us a better sense of the data from the snapshot view.

So we're going to click OK here and stats generate the command syntax for the graph, the output window.

Now, you can, if needed, this procedure could be automated within a BI workflow, pulling data for a database and generating output to a dashboard, or you can export this image JPEG for using the dashboard. So I can see that export feature being – how I rate there.

So, back in the datasets we're going to run some advanced statistical procedures. And these represent another capability of this statistics professional workbench.

So we're using a general modeling, one variable. Our dependent variable here is sales and we use just about all the other variables as potential predictors. So, vehicle type is our fixed factor and then we're going to grab the rest of them as covariates. Now all predictor is drag and drop so very easily used. If you want to, you can automate this with scripts as well.

So let's click OK.

So the output generates significant levels for each predictor variable, but something doesn't seem quite right here if you take a quick snapshot. So the initial analysis shows that vehicle actually is like curb weight and wheelbase are significant predictors as it relates to the sales of those vehicles. So in other words, selling a vehicle is usually driven by how heavy it is.

So, reviewing our plotted data revealed – and we go to our graph here – something we may have overlooked. So, we saw a lot of Ford and Dodge trucks and this is skewing our results. So, you know, trucks are more heavier and so on.

So, let's go back to the data for an interactive data preparation. And this is another tool.

So basically we're running procedure that takes all of our data and statistically transforms it. So it generates a new set of data that is not affected by skewed data like having sold a lot of trucks for instance.

So they're generated to the output window. The procedure is executed. A new dataset is created.

So now, taking a look back to the dataset you'll notice that you got a new dataset here alongside the original dataset and this will help us unskew our results.

So you can see at the top here we've got a basically transformed dataset. So that takes the bias out, if you will. Again, for the original data.

So now we're going to rerun that same analysis and this time we're using that statistically transformed dataset. And, again, we're going to use a graphical user interface. We're going to drag and drop those variables to bring them in these covariates. We're going to save it for reviews, continue and now we're going to OK that.

So, we've got – our output shows the following attributes. (Figure-related vehicle) so price, type. This makes sense obviously. People have a price range. And they come on the lot to purchase a car or truck.

So after that, fuel efficiency and engine size. Again, it makes sense. People are concerned with fuel efficiency and if they're purchasing a truck, they'll need to know if they can pull a boat camp or trailer and so on.

So now that we better identified the attributes we'll soon be driving the sales of vehicles. We're going to generate some quick crosstabs based n the results. So the ability to generate custom tables is another capability of this statistical professional workbench.

So, looking back in the data we select custom tables and we're going to take a look at cars by manufacturers, see the average price, fuel efficiency and engine size. So, again, we are dragging in those variables we want to look at.

We are picking price, engine size, fuel efficiency. We're going to click OK. And there we go. We created a custom table with the variables and the significance that we want to see.

Now, this is a kind of a simplicity example but done basically to show you the capabilities of the SPSS statistics workbench and how certain datasets can skew results.

So these four capabilities you've just seen – your basic statistics and graphic capabilities, advanced statistics, data preparation, and the ability to generate a custom table – they're just few of the capabilities offered by this SPSS statistics professional workbench.

Just as a final note, it can be used as standalone, for instance on an analyst desktop or at the server level. So, in a lights-out automated fashion. And it can process work with a variety of data types whether it'd be SAS files, flat files, and Excel files. So just a quick demonstration for you of the power of SPSS statistics.

So now, the next part of the SPSS portfolio I want to talk about is, you know, informed decisions with predictors of what should we be doing.

And the SPSS modeling family is really the set of technologies. It's done primarily for modeling future outcomes.

So modeling also a known familiar key problem of data mining helps the organization take seemingly unrelated data and find those hidden relationships in that data. So based on those models, an organization can literally look into the future and understand what will happen the next time something similar to what's happened before occurs.

So, from predicting which offer will have the most impact to understanding and preventing churn, the modeling family helps people or users consistently make decisions that maximize results. So this repeatability makes modeling a powerful data for inventing best practices inside business systems and processes.

So it helps the analyst model future customer behavior, making predictions about how customers will behave using leading data mining techniques. And, you know, quite simple in its application.

So, bottom line is that SPSS modeling is the most efficient way for organizations to use their data to model future customer behavior, predicting what that customer will do b\next.

So, the next demo here, I mentioned it earlier in the presentation. It's really showing the power of Cognos 8 BI intelligent – business intelligence, PM1 from our FPM portfolio and SPSS working together on how a business analyst would help optimize a marketing campaign as an example.

Sow hat we're looking at here is a dashboard on an analyst and they're looking at the campaign performance. They offer the ability here for the analyst to look at expenses across times to get a better sense of what's happening against various campaigns.

The analyst here also has access to several reports that he can analyze campaign performance in terms of unit sold and actual revenue.

So here we're opening up the campaigns by year Q. By using the intuitive interface the analyst can explore major dimensions of any campaign the company runs using mouse clicks and drag and drop, you know, gestures.

So, here focusing on seasonal campaigns. They're typically run this year so we'll drill into that just to get a better sense.

Now, the analyst here in question is focusing on summer booths campaign. It's been one of the companies top revenue generators overtime.

So now we want to explore the numbers for the summer booth campaign on sales channel.

So here is looking into campaign specific to company's retail sales channel. Simply dragging that on to the analysis. And as you can see (family electronics) is there.

Now we're focusing in on the San Francisco Office. So basically what the base context that this analysis set.

We can look which products are generating the most revenue for the company by dragging that in. And now you can do a right click and see the individual products that make up the product portfolio for that.

And we'll come to the Top 10. Quickly do another right click and show the Top 10. So here we're seeing the top revenue for that.

So basically hat we're looking at here is the analyst knows a vast majority of high revenue products. Those generate the most revenue for the channeling campaign or high margin receivers and flat panel televisions.

Now we also want to look at that from a budgeting perspective and noticing that far field receivers and flat panels in the Top 10 mix are not as high or budget numbers for sales of flat panel TVs and receivers are not performing as well as they could. So perhaps there's some action that, you know, he could take to improve that by looking deeper in the sales patterns.

Now, before he does that, the analyst wants to confirm that revenue for these high margin products – the receivers and flat screen TVs – is consistent year over year. So he goes to his revenue measure and quickly changes the view to show 2009 rather than 2008. And it is indeed confirmed here, in 2009 – and it wasn't 2008 – the highest revenue for this campaign came from sales of receivers and televisions.

So we should go with supportive fact. The analyst wants to explore the relationship between the sales of these products to see if there's any potential to optimize revenue for these two high successful product lines. So he turns to SPSS. So he imported records from a simple IBM Cognos report that can save the Microsoft Excel format.

Now, a quick preview of this file shows the simple matrix of all the numbers and products where one indicates product list across the topmost purchase. This party order was zero. It means the product was not included in the order itself. And these numbers are fed into a (type) node where the analyst can

specify which of the products he wishes to include as part of the analysis. And attached to this (type) node are two additional modeling nodes both of which were simply added by drag and dropping them from the (palliative) nodes across the bottom of the display.

Now these two nodes provide the analyst with easy access to those data mining algorithms that finds associations in the data that's fed into them. Now, the two models used here are A priority model and a Karma model. Both of which can find associations between sales based on the kind of input records we just saw.

So having already run the numbers through these algorithms, the analyst has tried the results in the form of golden nuggets of information.

So here we see the A priority model. It turns your antecedent in consequent. It simply mean that people who buy the antecedent also tend to purchase the consequent. So these A priority results are encouraging.

So the analyst proceeds to view the results from a second algorithm, this Karma model. And here, again, he sees that there is string support between many of the same products.

So let me quickly go back to the dashboard we started off with. In this one the powerful things and the ability to take those predictive results from SPSS modeler and leverage the dashboard to communicate them and distribute them.

So we're looking at the list right now. For example, you also have the ability to change it to a chart. We're going to bubble chart that digitally. It correlates to the lifting confidence for specific product combinations. You can filter that report to see it only goes with the greatest degree of association. And you can view the numbers and chart concurrently to see cross sell candidates clearly.

So just to recap quickly, you know, we view this simple and intuitive web-based analysis interface to identify high revenue products in a stable sales channel for recurring campaign. It then said the information about those products with SPSS where we learned that there is a high degree of

association between specific models of flat screen TVs and receivers. Customers who buy the former also tend to buy the latter.

So, with this in mind, what the analyst can do right now is some(what if) modeling directly in the dashboard.

So here we see a couple of views into marketing sales campaigns as well as the income statement measures related to marketing. So, armed with the knowledge that specific product sell well together, the analyst can begin by focusing on specific cross sell campaigns where he expects cross from these products will generate new revenue.

So the analyst can focus on driving measures for sales in this channel, right? In this case with the San Francisco store. Now, because the campaign's cube shares with the income statement cube, the analyst when he changes the dimension of one place it is automatically updated in the other.

So the analyst is going to focus on promotional pricing for the specific product he wishes to cross sell. In this case a 65-inch class 10 ADP flat panel TV.

So he's going to apply percentage change of eight percent to reduce the price on average by eight percent. Now, the cross sell of product in question is 1,400 lot 10.2 channel receiver which is higher in both revenue margin than the flat panel TV that tend to drive combined sales. So we'll just put that as a four percent change.

So now all the (inaudible) I included here like adjusting cost, for instance, this could be incorporated into the scenario as well.

So with base price adjusted the analyst can then go to his campaign planning cube and up his plan unit sales based on the cross promotion of highly-associated products at reduced prices. And even with the change to only two of these associated products, the analyst sees a positive impact on the net income in the net income statement below.

And so from here the analyst can easily create a sandbox scenario to effectively blanch this analysis from the current view and continue to adjust prices, volumes, and cost to optimize campaign revenue and net income. So the result of all these is a foundation for successful marketing campaigns that initiate cross sales of products not in intuition, but on predictive analytics that confirm which products are most likely to generate combined revenue.

So using these kind of numbers, the business analyst can advice and guide the management and the executive teams they support and executives and business managers can track the results of the campaigns and plan executed, and also the managers can participate in all aspects of campaign planning and management.

I just want to quickly talk about – I just a few minutes left here. Just some of the industry solutions that we have – IBM has that leverage both Cognos and SPSS.

So, for instance we have a positive sector for crime prediction and prevention. So this provides the capability to analyze crime data, understand events that trigger and enable crime and better predict upcoming criminal activity to help facilitate effective deployment of personnel to address that.

For insurance we got customer retention and growth. So that provides the insurance customers products and services as a sustainable competitive advantage through customer segmentation, cross sell, up sell, call center optimization, and so on.

We've got banking campaign insight and optimization so this helps improve a bank managers campaigns by increasing lead gen while at the same time reducing cost to run and implement a marketing campaign.

And then for those of you in the retail sector we have a retail and market basket analysis solution which is a predictive modeling technique based on a theory that if you buy a certain group of items you are more or less likely to buy another group of items. So this is basically how retailers, you know, target certain customers with product combinations ultimately to drive revenue.

And then we've got the telco customer churn management solution. So, that's – customer churn is the number one return on investment play. And even if you improve it by, you know, one percent, back in tens of millions of dollars. So essentially this combines the analysis of, you know, traditional KPIs and metrics and a real-time social network analytics solution.

These companies can target churn candidates and gain, you know, and exponentially increase in prediction insight as who will turn three hours to three weeks before it actually does. So, quite an effective solution for those in the telco world.

So, as we've seen throughout the presentation and the demos, IBM business analytics with IBM Cognos and IBM SPSS helps provide answers to those three performance manager questions to drive business performance – how we're doing and why are we on it, why are we on or off track, and what should we be doing in the future.

So it helps the organization move from (sense) and respond to predict an act. And a combination in Cognos 8 BI with SPSS provides customers with those what I call predictive brains for the next generation of decision making and business optimization.

So together with the market leading capabilities, market leading dashboard and reporting capabilities of Cognos 8, these predictive intelligence can be broadly distributed, ensuring that decision makers across the organization get those insights to drive business performance.

And you saw that in the demonstration with the SPSS predictive model built right in to the IBM Cognos dashboard.

So just quickly in summary to finish this off before we have time for a couple of questions, as we've seen business analytics is the number one major concern for CIOs, Cognos and SPSS together play an important role in business analytics and together address those questions – how are we doing, why and what should we be doing in the future. And SPSS, you know, delivers predictive analytics and statistical analysis and you can distribute that

to business users across the enterprise in the form of Cognos BI reports and dashboards.

And then, just to highlight it quickly, Cognos plus SPSS deliver industry specific solutions that address specific business needs.

So with that I'm going to turn it back to Tim who is going to close this off with a few questions.

Tim O'Bryan: Super. Thanks, (Brent). That was great.

There are a few questions here. We've got about five minutes left. The first question that's come in is, do Cognos and SPSS products compete with each other?

(Brent Winsor): I would say no. Definitely not. I can understand why some users may get that impression, but, you know, as I highlighted in the presentation Cognos certainly addresses some specific business and user needs with, you know, the ability to answer those three questions whether it's scorecarding, dashboarding, reporting, ad hoc query, et cetera.

Where SPSS comes into play is the ability to help predict the future. So, look at what should we be doing next.

So, whether you're testing a hypothesis in SPSS statistics or modeling the associations of certain products to leverage the potential cross sell, they're really not – it's really complimentary technology and not competing technology. So, I think, you know, with the acquisition of SPSS, I know everyone in Cognos was excited that – with adding value to what we currently had. It's really get that, you know, what should an organization do in the future and then leveraging, you know, our reports, our dashboards to distribute that so more people have access to that information.

So, to answer the question, I don't think they – they don't compete. They're really complimentary and really a good fit for organizations looking to drive business performance.

Tim O'Bryan: Right. I think just to add to that, one of the workshops that the innovation center deliver is around forecasting best practices. And the idea in deploying a true forecasting methodology in your organization is that a forecast should give you a true depiction of what the future will most likely look like.

Most organizations implement what we call a budget learning and operating plan which is typical top down command and control type initiative that is dictated to the organization. Here are the targets you need to achieve. That's your typical budget.

Now, when we talk about a forecast it's more bottom up. It's more enterprise-wide which is, the enterprise should be telling the executives bottom up forecasting what that future will most likely look like, here's how I think we'll do over the next three to six to ten months. It could be depending on the horizon of your business, how far you can predict. It's what most likely the future will most likely look like.

Once you got that in place which you're typically using something like TM1 or Cognos planning to accomplish, the next step is, OK, great, now I've got an understanding of what the future will most likely look like. Let's go to the next step and do some predictive analytics what if analysis right (Brent) which is where that scenario planning comes into play to say, well, what if we chose strategy A. Or we base on this feedback 1 and 2, enter or exit certain markets that we're currently in but our forecast tells us that it's not going to be as opportunistic as we originally planned.

This is where SPSS comes into play which we didn't have in our product stack before. Would you say that's a fair depiction, (Brent)?

(Brent Winsor): Yes, absolutely. So, again, I mean, it really helps drive the value of what we currently have and together I think we offer a much more powerful solution.

Tim O'Bryan: Right. And so, if we go that next step then, I mean, looking within SPSS, what would you say is the main difference? This is a question that's come in, the main difference between SPSS statistics and SPSS modeler.

(Brent Winsor): I think the main difference really is, SPSS statistics is, you know, a tool that's used for testing out the hypothesis and looking at the relationships between two given variables.

So you test your hypothesis in SPSS and then with SPSS modeler it's really, you know, a data mining tool that finds associations between products, for instance, and ultimately helps predict what is likely to happen in the future. So it helps model.

So, you know, ultimately the tools are certainly complimentary but it tests your hypothesis in stats and then you model your future behavior in SPSS modeler. So both very powerful and ultimately can help drive, you know, that, you know, what should an organization be doing in the future question to address that.

Tim O'Bryan: OK. And obviously it's difficult in a 60-minute webcast to get in to all of the details around not only SPSS but Cognos and how the integration points are structured currently and what the roadmaps for the future looks like.

Where would you suggest people go to find more information whether there are more demos available, (Brent), or documentation on integration points between Cognos and SPSS, things like that? What would you suggest?

(Brent Winsor): I think, certainly, the SPSS website is a wealth of information about the different – the product portfolio of SPSS. And then, ibm.com would have, you know, more information around, you know, that type of information as well.

So, there's certainly a wealth of information out there. And I think for anybody on the call, possibly, you know, for those who would want more information, please send in your request and we can find specific information and answer specific questions about the various products. But I'd start with the websites to get a sense of, you know, to start your research needs if you will.

Tim O'Bryan: Right. Then I would also suggest to everyone else, if you want to see an actual live demo and more personal touch to it, I would absolutely suggest

contacting your IBM business analytic rep and schedule a demo. I know that they're anxious to come out and show you the entire business analytics platform and SPSS working with our other solutions.

(Brent) gave you some insight today, but if you want to go to a deeper level, certainly reach out to your rep and they can provide more information.

But, I want to – I think we're out of time right now. (Brent), I want to thank you, director or product marketing for business analytics at IBM. Thank you for your time. That was a great presentation.

And thank you everyone for attending this webcast. I hope it gave you enough information so that you've got a general understanding of SPSS and how it works in the Cognos environment, how it's complimentary to the Cognos solutions. The IBM Cognos solutions, that is. And, certainly, if you want more information we'll be sending out – soon here – a link to the on demand version of this as well as information about the innovation center and I encourage you, again, to contact your IBM business analytics rep or go out to ibm.com and you'll certainly find more information on business analytics solutions that – especially around SPSS that we discussed today.

So thank you everyone for your time. Enjoy the rest of your day and we look forward to seeing you on a future webcast.

Operator: This concludes today's presentation. You may now disconnect.

END