TESCO Technology Quarterly Newsletter

Director's message

My dear colleagues,

It has been another exciting quarter in the Tesco Technology world and I would like to share some highlights in this issue of the HSC Technology Quarterly newsletter.

First and foremost, we successfully completed a month of our new Products and Services Organisation. A big Thank You to all for the support and patience during this time. It is fantastic to see how the teams across UK and Bangalore collaborated in landing this very important change. With the rapid adoption of the Design, Develop and Run cells we are now transforming ourselves to better enable our businesses.

As Mike has often said, this is a strategic and fundamental shift in the way we position technology in the business. We are on a path to greater success and I am confident and excited about the journey we will undertake together in the coming months and years.

While all of this was happening, we delivered multiple releases of GMOnline, Slingshot, Juvo, IGHS releases, Mobile Apps, Next Gen Forecasting and many more; transitioned Malaysia Infrastructure and continued to deploy Operating Model systems in Asia and Central Europe. To use the cliché, we were changing the engines on a flying plane. We saw great strides in the Continuous Integration and Delivery space providing the ability for faster releases.

In our constant endeavor to improve the capabilities we hired top Engineering talent at the Director and Lead levels; launched Agile Competency Centre, and initiated Knowledge Management System for better reuse. We are onboarding nearly 200 graduate engineers into our family, promoted 7 leaders from Options 2-3 program and seeing great traction with our Women in Leadership program. We continue to invest in our Tesco labs to further enhance our capability to drive innovation.
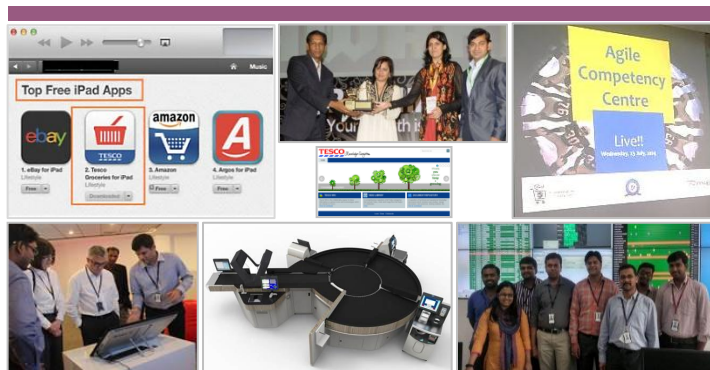
I look forward to your continued good work as we gear up for the upcoming Christmas season.

Enjoy reading and please let us know of any comments or thoughts.

Regards,
Vinod

Inside this issue:

Project Highlights

General Merchandise Online (GMO) – Front Office

GMO – faster release and new ways of working resulted in some key deliverables in 3 consecutive months:

9th April, 2014   >   Angry Birds release
8th May, 2014   >   Buzz release
29th May, 2014   >   Cindrella Release

The releases were based upon themes which were aligned to business such as *'Making it effortless, enjoyable and easy for customers to get what they want'.*
For example Angry Birds release delivered:
* Data model changes to support new browse-able product attributes
* Bazzarvoice SEO to enable Search Engines to crawl product reviews for use in its rankings
* Schema.org for adding mark-up to the product details page to help with search rankings

Cindrella release delivered:

* Fuelsave on Direct enabling customers to receive fuelsave credit for purchases on Tesco Direct Streamline basket reducing the impact of adding to basket on a customer's shopping trip, making it easy to get back to where they were before
* Improve flyout logic making it easier for customers to move between the primary and secondary flyouts in our "top" navigation
* Capturing the Martini ID on the order confirmation page for Doubleclick tag

The releases also undertook fixing production issues to make the User Experience even better.

UK Grocery

Juvo – The flagship application for Tesco's Customer Service Centre (CSC) has gone live with Release 9, which migrates 85% of the functionalities from the legacy application (Teleshopper). Over next 6 weeks CSC plans to train and transition all of its c.700 users from GHS team to start using Juvo application.

Juvo will support CSC improve its operations – Reduced Average Call Handling Time, Time saved on processing customer requests, reducing number of applications handled for a request and smoother application experience for agents ultimately leading to satisfaction in customer experience.

Customer Testimony: "*Juvo is so much more efficient than Teleshopper, everything runs quicker and smoother. I can refund and reschedule an order in half the time of Teleshopper, leaving the customer very satisfied. – Customer Service Manager*"

Slingshot: This might be the first time when a D release went live 2 weeks ahead of schedule. This was also the first time when a joint live implementation for both Grocery and mobile release successfully. The team has now successfully completed UK Grocery D22 Slingshot Release on both SDC and WDC data centers well ahead of scheduled plan.


Minimum Basket to GHS

What is minimum basket?

* A new minimum basket threshold of £25 has been introduced
* Customers will still be able to checkout orders where the basket value is under £25, but these orders will incur a charge
* The charge for orders under the minimum basket threshold will
  be £4
* This will provide business the flexibility to offer competitive delivery slot prices and getting more loyal customers.
* Click and collect feature has been enabled for the customers regardless of the catchmen

A snapshot of Basket Widget

Go faster Plan:
* Work as a RAT Team
* Everyone sat in the same room, met frequently, pored over papers and blackboards, and discussed their plans
* Automation testing was included as part of the deliverables to reduce the overall testing cycle
* The team efficiently used the automated Sanity and Regression pack to avoid manual efforts
* Closely monitoring the plan on a daily basis and removing impediments / dependencies as and when arises
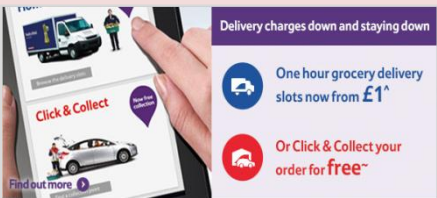
Project Highlights

International Grocery Home Shopping (IGHS)

Release 12 saw the enabling of dynamic slots for the customer. The business value being delivered is to tie in operations & customer so that the customer always gets a 'real-time' view of the delivery slots available to them to select from.

This will help operations cancel fewer orders due to delivery-van capacity maxing out and aid in achieving customer satisfaction from a view on availability of slots. The feature is being turned ON in phases across the countries. This is a pioneering epic since it enables IGHS platform for the first time, to integrate with the Transport API (in-line with program & Tesco Technology direction).

IGHS is working on Complex Promotions and Click & Collect Phase III. Complex Promotions Phase I will enable our customers to avail specific product promotions that are currently available in store **only**, in Online Grocery Home Shopping as well. This is the first step towards making Online Promotions as close to the In-Store promotions.

Click & Collect Phase III is all about Collect From Location (CFL), will help our customers widen their collection locations to other Tesco Stores (within their respective countries) apart from collecting **only** from their Home Store currently.

Till & Order Management

R10 completed its TE18 and TE18.5 release. For TE18, the objective was to deliver the R10 Self Service unit for stores and build the R10 Store support application. With TE18.5, there was a renewed focus on the R10 Customer Service Desk which was facing severe technical challenges since very long. Those have been successfully overcome and the re-introduction of R10 CSD in stores is back on track.

R10 Product Owners and business analysts from UK and HSC had their annual joint meeting this year in HSC. The focus was to revisit the entire product backlog and re-assess it against the R10 program mandate and renew the focus on agility and focusing on multichannel retail. A balanced scorecard exercise for R10 was incorporated with joint participation of teams from UK and HSC.

New Apps make shopping easier

Following on the epic Slingshot launch, the Mobile team had a successful release to customers - the all new iPad Grocery app. This builds on the foundations of the 'Avocado' phone apps, and utilizes the additional screen space to make home shopping even faster and easier. Reviews are hugely positive, and *the app is currently featured on the front page of the App Store "Best New Apps".*

The Tesco Groceries iPad app makes shopping easier and more convenient than ever. You can search and shop from our full range of products, find a convenient delivery slot or arrange to Click & Collect from a store near you. You can even update your order after you've checked out to add those last minute essentials like •See all our special offers in one place •Shop quickly from your Favourites •Securely check out •Make changes to existing orders •Find a Tesco store near you to see opening times and facilities •Save on your shopping using Clubcard e-coupons and vouchers

Satisfaction with our iPhone app continued to increase. This is due to improvements with search, navigating around the app and ease of finding products and is receiving great reviews from customers and senior stakeholders

Satisfaction with our Android app also improved. And we are 4.5 on Play Store.

The mWeb team achieved 6 Successful releases including ROI 3DS and UKGHS enhancements, and 4 BAU Marketing releases.

A snapshot of iTunes where we are featured by Apple as one of the 'Best New Apps' site

Highlights of the new iPad App post release:
- iPad app now represents about 10% of all iOS orders
- Downloads have exceed 30,000 and the app remains in the Top 20 Best New Free apps in the App Store
- Orders and other KPI's are still increasing rapidly, seeing between 10% and 20% growth on a day to day basis
- We've had plenty of positive feedback. Plenty of five star reviews on iTunes Rating on iTunes is 4.5 for the App
- Snapshot of iTunes where we are featured by Apple as one of the 'Best New Apps' site and ROI delivery saver is LIVE in June. A successful Slingshot mWeb changes.
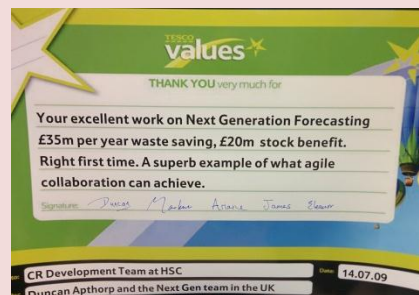
Project Highlights

Next Gen Forecasting - CR Development Team

Next Generation Forecasting is a background system change designed to make our sales forecasts during steps and promotions more accurate, **delivering £35m/year waste savings and £20m/year stock holding benefits.**

(A snapshot of the Value Award)

This work has been made possible through better ways of working / increased collaboration with IT, and the result is a simpler system which has a single forecasting method (Better Sales Forecast) for all products and all stores. Wherever possible, the CR Development team have simplified the system to reduce the number of restrictions on how we use it (e.g. around the use of steps). By applying Better Sales Forecasting to steps they remove the over-forecasting and gain better control of reactivity at the start of each step. Next Gen Forecasting removes the restrictions around lasting steps and adds the improved forecast accuracy of the Better Sales Forecast. This gives the opportunity to improve forecast management of certain scenarios where previously it had to be done with safety stock adjustments.

As part of extending Better Sales Forecasting to steps, they took the opportunity to build in some extra functionality that could be used to provide additional benefits in the future. These features are designed to simplify operations by removing restrictions from the system or providing more flexible access to functionality that was already present.

New Tills at New Lincoln Store

21,000 customers, 2 weeks, and nearly 30% of all front end transactions have gone through the four new Tills (checkout lanes) at the new Lincoln Store.

"whoever invented these checkouts is a genius"
- a Tesco customer

How they work:
- The customer, helped by Tesco employee, empties trolley on to the conveyor belt
- Items pass through an arch which scans them from all sides – 360 degrees – to identify barcode
- Once through scanner, items are carried by the belt to a circular platform
- Cone in the middle of platform spins the items into the first of 3 packing areas
- Once all the shopping is through, second customer can then load items on the belt
- A wall rises around the first shoppers items, which means the second customer's shopping is diverted into a separate packing area
- The same pattern is repeated with a third shopper
- Each of the three packing areas has its own payment point, where customers can pay with cash or card
- There is also a dispenser for bags, which customers can take freely to pack shopping

Milestone - Group Operations Centre

The Group Operations Centre (GOC) established in December 2012, achieved yet another milestone of taking up IT Systems Monitoring of Tesco Malaysia on Monday, July 21, 2014.

The GOC team will monitor critical IT systems 24/7 of the Malaysian Business and will be the only team in HSC to proactively spot the IT failures before customers experience any outage. GOC now hosts the operational monitoring of our UK/ROI, Central Europe and Asia Businesses.

(A snapshot of the GOC team supporting Group Country monitoring)

Tesco's Journey to DevOps and Continuous Delivery

Tesco embarked on its journey of DevOps and Continuous Delivery to cater business's requirement of faster and reliable deliveries. The teams who were already Agile in development needed another step to deliver faster to the business.

Continuous Delivery (CD) is a software development methodology to automate and improve the process of software delivery. Techniques such as automated testing, automated and continuous integration and deployments are used to quickly develop, package and deploy high quality software to the test environment, resulting in the ability to rapidly, reliably and repeatedly push the changes and bug fixes to customers.

What is DevOps:
DevOps is a niche approach that stresses communication, collaboration and integration between software developers and information technology (IT) operations professionals. DevOps is a response to the interdependence of software development and IT operations. DevOps is also seen as a bridge to fill the gap which Agile development methodology and ITIL support framework may create.

Following are some of the successful Continuous Delivery Initiatives:

Build Quality and Continuous Integration
Refined quality of builds with more quality gates defined at check-in level. The minimum unit code coverage and Sonar rule compliance is now a mandate in some programs. This ensures that the build meets the minimum criteria even before the first deployment happens. With Continuous Integration framework in place developers have immediate feedback if any thing fails.

Automated Testing
With Selenium and Cucumber Testing frameworks in place automated calls are taken for build promotion from DEV to STG environments.

Less handshakes
For STG environment the dependency on RFC and Release Notes are reduced. The build manifests are automatically tracked and promoted to next environment.

Less Human dependency for deployments:
There is no human dependence for deployments in DEV and STG environments and automated deployment pipelines take care of:
- Static Code Analysis and Unit Test Runs
- Build and Packaging
- Deployments
- Testing and Regression

Performance Indicators of Continuous Delivery:

Number of Builds
One of the continuous integration principle is that we should build more often. When the developers don't have a continuous integration framework in place they are skeptical in checking in their changes. With Tesco's CI framework in place we have seen increased number of builds across IGHS, GHS and GMO. By following Continuous Integration, we have doubled the output (number of builds) for few of the components in comparison to the previous year.

Number of Deployments
The number of deployments have increased significantly with less human dependency, lesser handshakes and fine tuned deployments. Fir e.g. in IGHS one STG deployment which used to take more that a week earlier (2012) now handles 2-3 deployments everyday.

Quality Improvements
With Cucumber automated testing framework in place in GHS, the human effort of implementation testing, sanity and regression are now reduced from weeks to hours.

Work on next phase of Continuous Delivery is in place and it includes:
Extension of Deployment Pipelines to PPE Environment

Service Virtualization - Implement CA Service Virtualization to make component based environments where we only deploy the component which is to be tested and all dependencies are virtually present to support the testing.

IAAS - Infrastructure as a service helps in automated provisioning of infrastructure when required and automated base installs of third party pre-requisites. It also helps in Auto healing and resetting of the environments when required.

Dashboards - SCOM, Splunk and Site Confidence Dashboards for lower environments.

Mobile Engineering – *a case study for Continuous Delivery practice*

The team at Mobile Engineering Lab follows some of the engineering best practices that includes Continuous Delivery to achieve the goal of absolute perfection in the mobile applications that we deliver.

Continuous Delivery

Continuous Delivery is followed religiously by the team.

The common steps followed for each project are as follows:
- Developer commits his code to the source code repository
- Scheduled job in the build pipeline runs a series of static code analysis and units tests. If this job fails, the development team is notified of the failure
- If this job succeeds, then next job in the pipeline gets triggered. This job produces a mobile app binary and pushes it to the connected mobile devices and also uploads the binary to build server for wider distribution. If this job fails, the development team is notified of the failure
- If the job succeeds, the next job in the pipeline is triggered to run a series of automated functional tests on real physical mobile devices. The Test Results are then shared with Scrum Team as an automated email report

This cycle continues till the product is released. Post Release, Automated Sanity Tests are scheduled to ensure the product is performing well in the production environment.

Jenkins

The team uses Jenkins, an open source continuous integration tool written in Java to configure our build jobs. These jobs are designed specifically to perform a certain action.

For e.g. DC Android Analysis job is designed to run static code analysis on the latest source code pulled from the repository. There are thresholds defined for the job to succeed and if the source code analysis fails to pass the threshold, the job fails and this is marked by red visual indicator. If the job succeeds, it triggers the next job in the pipeline.

Based on the requirement, these jobs can be triggered on nightly basis or on demand. The dashboard gives a visual representation of the health of the builds. A blue indicator shows build success whereas red icon indicates failure.

Build Pipeline follows the downstream process, where the next job in the pipeline depends on the previous job to succeed.

(Digital Clubcard Mobile App Pipeline View)

Build Monitor View

represents the monitor view for a project that get displayed on large TV screen placed in the Mobile Lab. This gives a good visual representation of the health of the build at various stages of product development.

(Digital Clubcard iOS App Build Monitor View for Large Screen Displays)

Reports and Test Results

The Static Code Analysis job produces a Code Quality report which covers Duplications, Coding standards, Lack of coverage, Potential bugs, Complexity, Documentation and Design. This helps Development team follow the best coding practices.
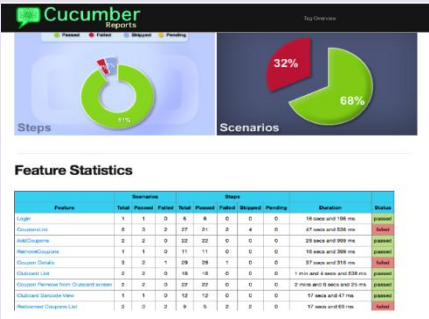
(DC Automated Functional Tests Report)

Every build generated goes through a series of automated tests and the test results produced are shared with the team via an automated Email report. These results are also displayed on the large screen TV placed in the Mobile Lab. The above image indicates an Automated Functional Test Report for Digital Clubcard Mobile app.

Big Data Trends

Colleagues from our BI team at HSC attended the Gartner Business Intelligence & Information Management Summit, 2014 held earlier in June.

They shared with us key predictions from Gartner in this space -

Gartner predicts:

By 2015, over 50% of Big Data solutions will make use of data streams from instrumented devices, applications, events and/or individuals.

By 2015, more than 30% of analytics projects will deliver insights based on structured and unstructured data.

By 2016, 30% of businesses will have begun directly or indirectly monetizing their information assets via bartering or selling them outright.

Through 2017, premiums for Big Data-related technology and project skills will remain 20% to 30% above norms for traditional IM skills.

Tesco Labs inaugurated

The core purpose of the lab is to 'Envisage, Design and Create the future Tesco….TODAY'.

The whole of Tesco Labs is a research team who explore as to what the future of retail might look like. Since the lab is also a product design team, they can turn imagination into reality and enable us to trial, learn and fail fast.

Tesco Labs have teams in the UK, India and Hong Kong with a wealth of experience. But they also want to draw on the imagination and experience of all of our colleagues, fostering a culture of curiosity and innovation.

At Tesco we have a long history of innovation, on the shop floor and behind the scenes.

In the last five years there has been an unprecedented shift in the way that customers live their lives, much

Mike McNamara – CIO, Tesco inaugurates Tesco Labs at HSC

of it fuelled by technology. The way that people consume media, entertainment, eat, shop, live, go to work and socialize has fundamentally changed.

The retailers that will thrive in this new technology-driven world are the ones that put customers at the heart of their business, helping them to shop however, wherever and whenever they want to. That is the total focus at Tesco.

To know more about Tesco Labs, visit the following link:
www.tescolabs.com

Current ongoing projects at Tesco Labs

KitchenX is a futuristic kitchen design concept based on emerging technologies like IoT (Internet of Things), WebRTC, interactive touch surface tops etc.
The KitchenX consists of a smart shelf called 'MasterShelf' that keeps track of the inventory in the kitchen and auto orders it whenever they run out. It also recommends recipes based on the current inventory.
It also boasts of a touch surface which combines the power of cook tops, menu scheduler, face-to-face video conferencing facilities, entertainment apps and plethora of other apps that make cooking fun and easy with the help of technology and innovation.

A view of the current set up at the lab

Most Popular Terms/Products for GMO
This lab project aims to utilise search related web-analytics data for our online customers who like to browse through our product categories. The team had designed and developed an experience for our GMO website to present the top searched terms along with the top viewed products associated with each term on the department and category pages. This is being prepared for trial with our customers in the coming weeks.
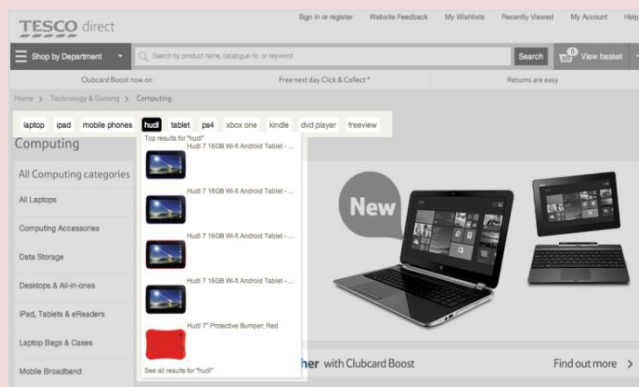
Commercial Finance Insights
This is an exploratory project to discover & define a better paradigm for reporting on our commercial finance data. Using the data, we aim to deliver useful insights to the Commercial Finance team by the use of dynamic visualizations and by employing data science techniques. Subsequently, the project can evolve to serve reporting and insight needs in other spaces within the business as well.

Tesco Knowledge Ecosystem

The CDM team in collaboration with Tesco Technology Infrastructure team recently introduced our own knowledge management portal 'Knowledge Ecosystem' to our colleagues in Technology.

The core objective of this initiative was to create a process where we capture, develop, share and effectively use our organizational knowledge. This is a platform where we will have a repository of technical and operational knowledge, where our colleagues can access to learn/upgrade their knowledge while they also contribute their bit of knowledge for others to make best use of.

The portal has three categories – Wiki, Video Library, and Document repository. Wiki is a collaborative space where one can share information on various terms and terminologies which
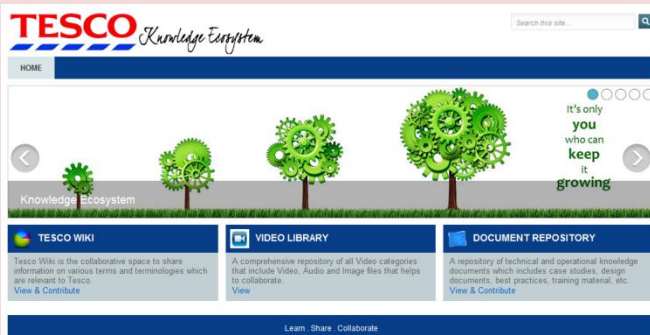
(A snapshot of the Knowledge Ecosystem homepage)

are relevant to Tesco. Video Library is a comprehensive repository for Video, Audio and Image files that help share knowledge. Document Repository is where one can upload technical and operational knowledge documents which can include case studies, design documents, best practices, etc.

Agile Competency Centre Launched

On Tuesday, 22nd July, 2014, the Agile Competency Centre was launched. Hiren Doshi, our internal Agile expert was the key speaker of the event.

Welcoming new graduate engineers to Tesco Technology

This year we already welcomed 168 graduates engineers to be part of Tesco Technology in 5 batches. The 6th batch is yet to join us. These graduate engineers are currently undergoing the Technical Induction Program and will be joining various DDR Cells very shortly.

Tesco Technology - Recognitions and brand presence

Best Loyalty Solution Provider Award:

Tesco HSC won the **'Best Loyalty Solution Provider'** award at the 3rd Indian Retail & eRetail Awards 2014. Tesco's hugely popular and innovative Loyalty Programme – Clubcard was adjudged the winner. Vinod Bidarkoppa – CIO & Director, Group IT, Tesco HSC received the award on behalf of Tesco HSC.

He also addressed over 450 delegates from over 70 Indian and Global retailers at the prestigious The Indian Retail Congress 2014 in New Delhi. He shared his thoughts on **"How Does M-Commerce Fit Into An Omni-channel Strategy?"**

(Vinod receiving the 'Best Loyalty Solution Provider award)

Presence at NASSCOM's GIC Conclave, Pune:
Tesco HSC supported the Nasscom GIC Conclave and addressed over 400 delegates from over 200 Global In-House Centres (GICs) At the event

Vinod Bidarkoppa Speaking at NASSCOM GIC Conclave (Pune, 2014)

Media coverage in Business Standard

Decade-old Tesco captive still strong

SHIVANI SHINDE NADHE
Pune, 26 April

its information technology requirements out of Bangalore. Tesco Hindustan Service Centre, which completed a decade of operations in India in March, manages about 72-75 per cent of Tesco's global infotech requirements. Vinod Bidarkoppa, group director and CIO, Tesco HSC, said, "Tesco HSC is a strategic asset. Technology is the new property for our industry. As we take our stores to the digital platform, technology will be crucial," he said.

Tesco Technology also registered its presence at **The Gartner IT Infrastructure Operations & Data Center Summit, 2014** addressing the audience.

Academia Connect
Vidya Laxman - Director IT, Tesco HSC addressed an audience of over 150 members, comprising students and delegates from corporate houses at IIM Bangalore's (a leading business school) annual event called Eximius'14.

Tesco now partners with

ANITA BORG INSTITUTE
WOMEN TRANSFORMING TECHNOLOGY

Big Data Analytics -Taking a Deeper Dive

CATEGORY: FEATURES
PUBLISHED ON MONDAY, 21 APRIL 2014 12:04

There is indeed a growing awareness about big data, but wider adoption of the technology is hindered by doubts over quantifiable benefits
By Pankaj Maru.

The road to big data analytics is not easy as it might... exhaustive, time-consuming journey that would test... understanding and knowledge of CIOs as well as the patience and perseverance of enter...

Media coverage in Express Computer

telecommunication, retail and others are more likely to invest and benefit from big data technology.

Tesco, the U.K. based retail giant with 6,600 stores globally is among the top enterprises that deals with enormous size of data. Beside data generated from more 80,000 tills (cash registers/PoS) spread across all stores located in 12 countries, the retailer also has offers online and mobile channels to customers, which too generates data of significant scale.

And that is where Tesco started to encounter big data in the classical definition of four vs. many decades ago. To address the exponentially growing data, the world's third largest retailer with a $115 billion revenue, came up with Tesco Hindustan Service Center (HSC) at Bangalore in 2004. This key center provides all the operational and technology support to Tesco's retail business in different countries.

"Tesco is among the first enterprises in the world to start loyalty membership program (known as club card) for its customers many decades ago. Today, there are over 70 million club card members, out of which, 20 million are active cards. Beside those physical stores, Tesco has the mobile and internet channel for sales," says Vinod Bidarkoppa, Group Director and CIO, Tesco HSC.

Given such a huge customer base and burgeoning number of transactions across channels, the rate at which data is generated at Tesco is massive. However, it is the Bangalore center with over 6,500 staff that manages all the customer data, as well as provides key insights...

Also covered in IT Next publication

People Highlights

It's been an action filled start of the year and I am very proud of what we have achieved together as a technology team. At the start of the year, my team and I spent some time to craft out the technology HR Team agenda – for everyone, everywhere we enable the culture, capability and capacity to meet our multichannel growth ambitions – this agenda is aspirational, forward looking and helps us focus on the right talent priorities. What have we been up to .. read on:

Launch of Inspiring Great Performance which will help us focus on not just the 'what' but also on the 'how'. 81% of Technology colleagues went through the various training sessions. 46 facilitators contributed to bringing these sessions to life. Around 87% of our colleagues have already completed their Objective setting as per this new way of motivating, measuring and inspiring our colleagues.

Learning to lead & Options 1 to 2: We continue to invest in developing our talent pipeline. The second Learning to Lead programme was successfully launched in Q1. 44 technology colleagues are part of this programme. Third batch of options 1-2 colleagues have been signed on to the program and we have around 80% of signed off colleagues (batches I and II) who have been placed in their WL2 roles.

Additions to our WL3 leadership team:
- 7 colleagues were successfully signed off and were promoted to WL3 positions! Join me in saying congrats to Bharathi Govindasamy, Bakkialakshmi Krishnamoorthi, Rajul Garg, Thanu Sundaresan, Nripendra Singh, Subramaniam Devarajan, Ravindraprasad Elicherla
- We had leaders join us externally and we welcomed Ashok Balakrishnan, Vasanthi Ramesh and Rahul

Campus hiring: this year we will onboard around 200 campus hires and we are very excited about the same. These new hires go through a detailed technical and leadership skills training program. For us to deliver this – great partnership between CDM team, business and HR.

Women in Leadership: 6 women colleagues from technology successfully completed this journey.

As the technology team went through transformation, we worked along with the business to lead communication, people and organizational change impact. Communication was driven through various forums whether it is meetings, drop in sessions, on line chat session. All this work done together with the business has helped us drive clarity and commitment around the change.

What to look forward to:

- Technology townhall and midyear rewards and recognition – Aug 26!
- Continued focus on colleague communication
- We will reboot learning .. stay tuned for refreshed academy syllabus (learning paths) and academy on line!
- What matters to you
- Mid-year performance review

Welcoming to the team *– 2 new Heads for Engineering and Technology*

Ashok Balakrishnan has joined us as Head of Engineering and Technology in the Product Organization reporting to Rekha Warrier. He will will lead the "Instore Customer Picking" Product portfolio.

With a Masters degree in Computer Science and 18 years of experience in the Airline domain, he joins us from Sabre with a diverse work experience, managing global teams across Dallas, Poland and Bangalore.

Vasanthi Ramesh has joined us as Head of Engineering and Technology in the Services Organization reporting to Suresh Ramaswami. She will lead the "Transport and Tracking" portfolio.

Vasanthi is a hands-on technology leader with a track record of motivating and guiding teams to deliver cutting edge technologies. She joins us from the internet start-up Flipkart aka "Indian Amazon", where, as Director of Engineering she led the vision and strategy for customer platform and mobile applications.

In person: Mike McNamara

Mike McNamara - CIO, Tesco, shared his thoughts on Tesco HSC completing 10 years and also outlines the strategy ahead in this exclusive interview.

Mike McNamara
CIO, Tesco

You have visited HSC for many years and spearheaded the IT set-up for Tesco. What is your impression of our journey over 10 years?
It has been a fantastic journey. All journeys of the last 10 years do not go in a straight line; there are many deviations and obstacles on the way. At times it was real hard work. I remember the first team of 6 people and now it is 6000. The faith that the company has had in HSC is written in the 6000 people from the initial six. We continue to invest in HSC because it's beneficial for the business. We have got the best technology team in retail in the world. That team is largely based here in HSC. This is a strategic asset that our competitors would die for. We have the ability to create apps, innovate, and create on a scale which gives us a huge advantage in the market.

What do think has fundamentally changed and what has stayed the same at HSC?
Let me start with what has stayed the same in HSC. I think the spirit of the place has stayed the same. Every time I come over here, I feel revitalized. There's still such a sense of determination, commitment, inventiveness, ambition. There's been energy around this place that has remained from Day 1. This is visible on a much larger scale than back then. The ambitions of the people, the friendliness of the place are all the great characteristics of this place. Hopefully those are the kind of things that will be preserved into the future. What has changed? The scale has changed and Bangalore has changed massively. Twelve years ago the streets were not really made but there were hardly any cars. Bangalore has changed a lot and modern retail has invaded Bangalore. Ten years ago and even six years ago there was hardly any food retailing, but now there's a lot including our own joint venture with Tata. HSC has grown closer to the rest of Tesco. I don't differentiate between a team in UK and team in India; I just see a team that is brilliant.

What is your message for colleagues at HSC on our completing 10 years?
The overall message is that multichannel is our strategy. That is the future of Tesco. We are in the middle of transforming Tesco from a brick and mortar retailer to a multichannel retailer. It's more than having a smartphone app, it's more than having a website... It's turning the company around and looking at it through the lens of a customer, in a real way that we have not done in years. We had looked at business through the lens of a product or format. We are looking at it through the lens of a customer and making sure that we provide our customer with the best possible offer, be that on a smartphone, or as they walk into our store, or over a cup of coffee. It's what multichannel is about. It's not about the internet. It is that people are carrying quite powerful technology with them and that is how we talk to them in the future. We are going to talk to them through technology in the way that we talked to them through newspaper.

You recently spoke about the "internet of things"?
The internet of things is what we are in the cusp of. We are seeing a proliferation of sensors going into all sorts of things, usually mechanical type of equipment. We are seeing RFID going into clothes. How that actually means in the future is anybody's guess, really. Machines are going to be talking to machines a lot more. You are going to need far more data scientists, more mathematicians, because a lot of things are going to be completely automated.
This is a huge opportunity for us. One of the challenges that we face as trade moves online, is that trade moves out of physical stores. Your fixed costs become higher. And we have to look at all those advances and see how we can automate more what we can do inside a store. You want colleagues in stores serving customers and not counting stock or putting up price labels. We need to look at the broad range of things and find out how sensors, video analytics, eliminate processes and operations within our stores. And it will really be "machines talking to machines".

Can you share a bit about your perspectives on multichannel and what colleagues need to think or do differently?
I think the difference in multichannel is putting the customer in the middle of things rather than on the end of things. We think of customers as consumers of products and services. Actually, what we need to see are customers at the heart of things. I think as you go about your daily job, you need to see how it relates to that, putting customers in the heart of things. What is it that you are doing here that is going to make the customer's life better, the shopping journey more pleasant, more fun, more enjoyable and more convenient? The work that is done here is absolutely directly connected with the experiences that our customers have in our stores all over the world. Without the systems that you have created we would not have had the homechef availability that we have, the merchandising capability, the mobile phone apps, the internet, and the websites. All the work that we are doing here very much impinges on our customers. Think of how it makes customers' or colleagues' lives better. That's what you should think about.

In person: Vidya Laxman

Vidya Laxman, who recently joined as our new IT Director, Services – Product & Price, and Customer, outlines what it took her to join Tesco Technology and her plans for the business in this exclusive interview.

Tell us more about your experience prior to joining Tesco?
I come from a Software Engineering background. I went to Boston for further studies and joined a startup company while in campus. My career highlights so far like to believe, has been the opportunity of working for and interacting with the Ex-Chairman of OMG group and Eric Schmidt of Google fame who were on the board. Primarily I have been in the Products area while working with a mix of large organizations like Fidelity, Evergreen and smaller startup companies. After about 14 years in the US, I came back to India as Head of the Sunguard Division and then joined Thoughtworks as COO for their Products division. I have always been in global delivery roles and primarily held leadership roles with a strong technology connect.

What was the key attraction that made you join Tesco Technology?
I was excited about the transformation which Tesco was going to take up. I believe my skills were well suited and will help make an impact in this journey. I also think Retail is the next big thing and I am betting on that. Most importantly, I believe that the culture and people at Tesco are the biggest reason.

You have worked in organizations that are known for technology and this is a retail organization. Do you see there being a big lag in engineering?
I don't see a lag in terms of technology. But yes, there is some gap in the business ability to leverage technology. Probably in the past, technology was not perceived as an asset and the good thing is that – its changing now. Our technology is as good as any other company of this size and age is likely to have. Of course unlike startups we have the disadvantage that we cannot start something entirely new. But what I see today is that the Retail sector is poised for a technology rush - the kind which was witnessed by the Financial sector about a decade ago.

Amazon is a tech company venturing into retail , and we are a brick 'n' mortar organization moving towards multichannel. What are your views?
Well, Amazon was able to start from scratch very recently and they are moving fast. Now, even they are getting into the offline model. But what we have is an already existing Brick and Mortar model and a great understanding of retail. We need to find ways to best utilize this and build on top of it. We may have missed a bit on the e-commerce bit but, we are well poised to catch up. It will all depend on how well we execute the multichannel strategy.

Tell us 5 words that describe Tesco for you?
Retail; Transformation Journey and Agile; Multichannel; Vision; Strong Leadership & Team.

A Blog on Scrum Journey – *from Waterfall to Agile*
by Mohit, Anand & Anil from Rewards & Marketing

We were not exactly early adopters and, we were not late either. The reorganization brought Rewards & Marketing (formerly Marketing IT) under the Group Customer Engineering (GCE) division. This division had teams following Agile methodology with scrum teams for delivery of applications from GHS/IGHS to Rewards.

Taking a step back, this was not the first time Agile or scrum has been floated in our group, however it never gained critical mass. Now with all our peers in the division following this successfully, it was just about the right time we took this step towards a change.

The initial conversations went through ideas on people, tools, technology, processes and so on. A journey which had then begun seemed interesting, and it was this journey they wanted to capture on a blog.

There have been some initiatives in the past year which now seemed crucial to reach their goals. Things like moving over to Team Foundation Server (TFS) and getting to an automated build process through tools like Nolio, moving a big chunk of our testing through Automation and so forth.

These initiatives could never see the light of the day due to various constraints on budgets, resources, time, etc. We are still finalizing the details; however there seems to be a light at the end of the tunnel.

To read on how they continued their first scrum journey, please click on the link below:
http://kms.in.tesco.org/sites/kmd/kmdocs/A%20Blog%20on%20Scrum%20Journey%20–%20from%20Waterfall%20to%20Agile.docx