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Project Management in Digital - Accelerating Digital Product launch through Project Management

Clear Product Development Strategies for Enterprise Agility

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ABSTRACT

In the fast-evolving, vuca world of today, project management can be used as a reliable tool to connect the dots faster in the digital marketplace.

Background - For our US based multinational client, our team project-managed the launch of their first digital-only products in the emerging APJ region, starting with China and South Korea. Unlike Developed markets (DM), Emerging markets (EM) like China and Korea presented enormous opportunities along with multiple challenges like intense competition, different consumer behaviour etc. While in the mature DM, the broad contours of challenges can be defined, legal flexibility and lack of regulation in EM make it difficult to define the volatile, complex yet lucrative online EM markets.

Objective - The objective of this technical paper is to showcase how Waterfall and Agile Project Management concepts were used to enhance project, and thus, enterprise agility by bringing products faster to such an ambiguous and complicated market.

Methodology - Agile Project Management concepts, like having a motivated constantly interconnected team, regular client interactions, driving relentless project communication, amongst others, helped to manage product development through progressive elaboration and in adapting to changing client requirements. With each successive sprint, newer client requirements were identified and newer challenges were adapted to.

Takeaway- Expected takeaway are reusable Project Management concepts that can enhance enterprise agility to seize the tremendous opportunities in both Digital and EM.

Recommendations- In addition, the paper also proposes additional Project Management recommendations to further enhance deployment agility.

Keywords – Digital Project Management, Online vs Offline, Web Analytics, Data Science, Business Analytics, Emerging Markets, Developed Markets, China, South Korea

INTRODUCTION

Business Overview and Trends - The steady rise in internet penetration, combined with both the lowering entry price points of smart devices and the rapid adoption of technology across all strata of societies across the globe, have enabled customers to shift their purchases to the online/digital space. This digital world presents enormous opportunities to brands as they can leverage the online channel to augment offline buying behaviour of existing customers, in addition to facilitating their discovery of new first time buyers.

eMarketer estimates¹ that ecommerce sales growth will outpace brick-and-mortar sales growth by a more than 3-to-1 margin (forecast period – 2014- 2019). Asia-Pacific will be the main driver behind this growth and ecommerce sales in the region is expected to climb to \$1.459 trillion by 2019. Rapid growth in the number of internet users buying digitally for the first time, as well as the increasing disposable incomes in China, India and Indonesia, are fuelling the majority of the region's growth.

However the complex and constantly shifting Digital platform, especially in emerging Asia Pacific countries, present enormous challenges too. Most multinational companies, like our client, have been dependent on the developed offline markets of US and Europe for the majority of their sales for the most part of the last century and these mature markets are now seeing a slowdown in growth. Growth is expected to come from the fast growing Asia Pacific region, however, most of these companies are yet to perfect their strategy to serve the Asia Pacific consumer. Consumer values and behaviour differ from that of developed markets. Legal flexibility and lack of governing bodies also render these online markets rife with competition and complexities, which these companies often have no prior experience of dealing with.

Another challenge to digital adoption is that most product companies have historically been sales-focused on the retail offline channel. They have developed strong relationships with the offline retail channel, which has not shown openness to integrate the digital channel into the existing sales motion as the tier-efficient digital channel can often provide similar products at a lower price to the same customer and thus conflicts with the multi-tiered retail channel.

However companies now realise that they cannot ignore the online platform as their end consumers are steadily shifting to online. Research² has shown that the digital platform has encouraged consumers to participate sequentially and simultaneously in different channels along their path to a single purchase. In addition, the online channel also presents companies and retailers a cost efficient opportunity to connect with end consumers who are currently not serviced by offline retail formats.

Our US centric client decided to launch exclusively-online products to serve the Asia Pacific digital consumer. This strategy to maintain a channel specific product portfolio - products available on one channel (online) are not accessible on the other (offline) - helped ensure cross-channel harmony. Our team project managed the launch and relied on Project Management to accelerate the project, and thus, enterprise agility. This paper looks at the launch of our client's first exclusively-online products for the APJ (Asia Pacific Japan) region, starting with China and South Korea and focuses on the Agile and Waterfall Project Management concepts that were used to overcome many of the project challenges and thus helped accelerate the product development and launch.

PROJECT DETAILS

Project Background – Our US based client generates majority of its revenues from US and from the offline retail channel. Its revenues from the APJ region pale in comparison. In addition, their APJ revenues were also similarly obtained majorly through the offline retail channel. The client's digital presence in the APJ region was limited to only its company website, the intent of which was mainly for branding purposes. The client decided that the launch of exclusively online products made available on local websites/e-marketplaces can help in making a start in the Digital space, maintain channel harmony and help them to reach out to new unserved users. Also, valuable learnings to hone their Digital Strategy could be extracted that can be further deployed for long term success in the Digital space.

Project Objective – To product-develop and launch client's first exclusively-online products for the APJ (Asia Pacific Japan) region, starting with China and South Korea. The platform on which launch happened were local marketplace websites in either country. The reasoning behind the selection of these two countries was that China is the largest online market in the world ^[3] while Korea is the most connected country in the world with over 80% of its population online ^[4]. The key stakeholders of the project were the APJ Business lead, APJ Online Strategy lead and the leads of Factory, Packaging and Manufacturing, members from the product development team and the business teams of China and S. Korea. Also, teams from Market Research and Supply Chain were consulted with support drawn from the Analytics team also.

Product Development – The Product Development phase was divided into two sub phases – Product Envisioning and the Factory Manufacture. Product Envisioning drew insights and inputs from the Sales and Market Research teams. The client's target customer base (current and addressable) was segmented and customer needs by segment were studied. The segment, targeted by the digital products of this project, was identified to be digital savvy, and uses the internet to read online reviews and to compares prices. The client product was envisioned to target this digital savvy customer, who was currently under-served by the clients existing offline products. Based on these identified segment needs, the products were envisioned to meet these customer needs. The Factory Manufacture phase of Product Development stage followed the management validation and approval of the business case. The client did not wish to share details of its Factory Manufacture phase for this paper.

A combination of Agile and Waterfall Project Management concepts facilitated and coordinated the various phases of the project.

The Four Perspectives of the Project –

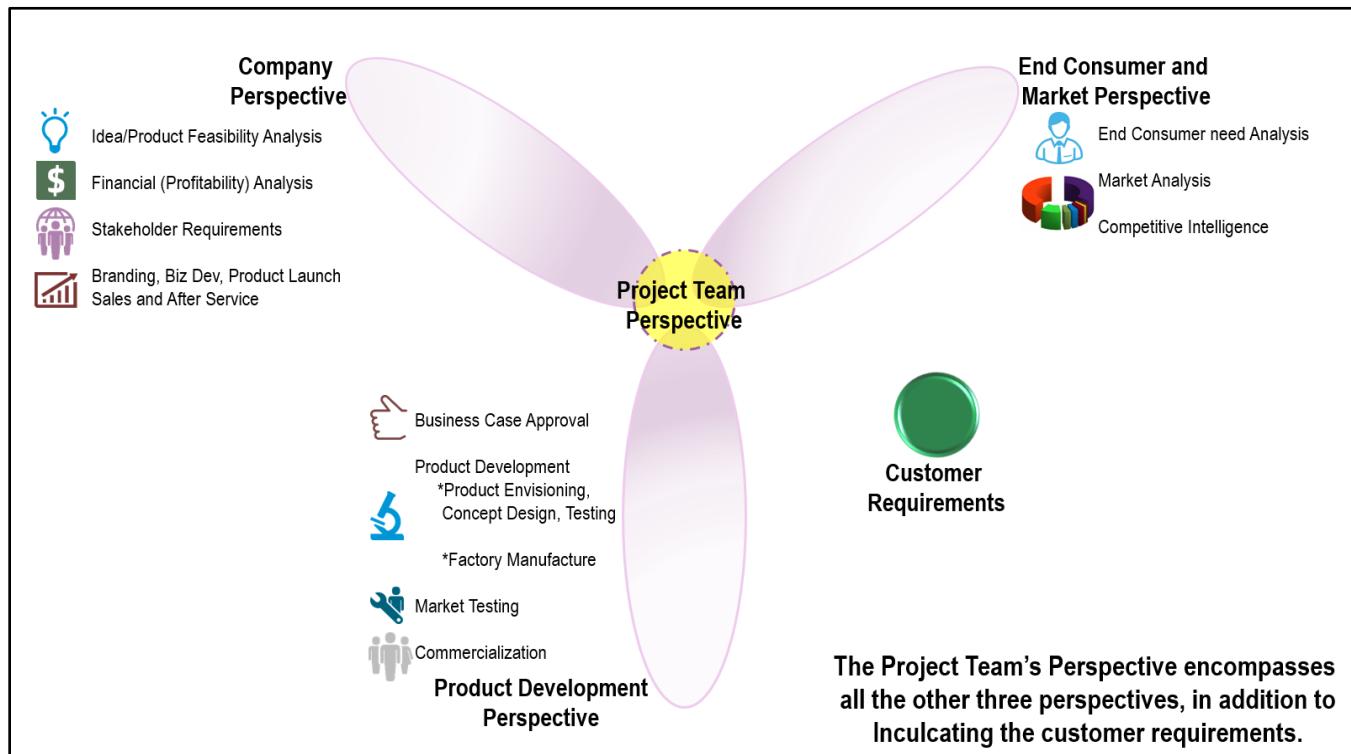
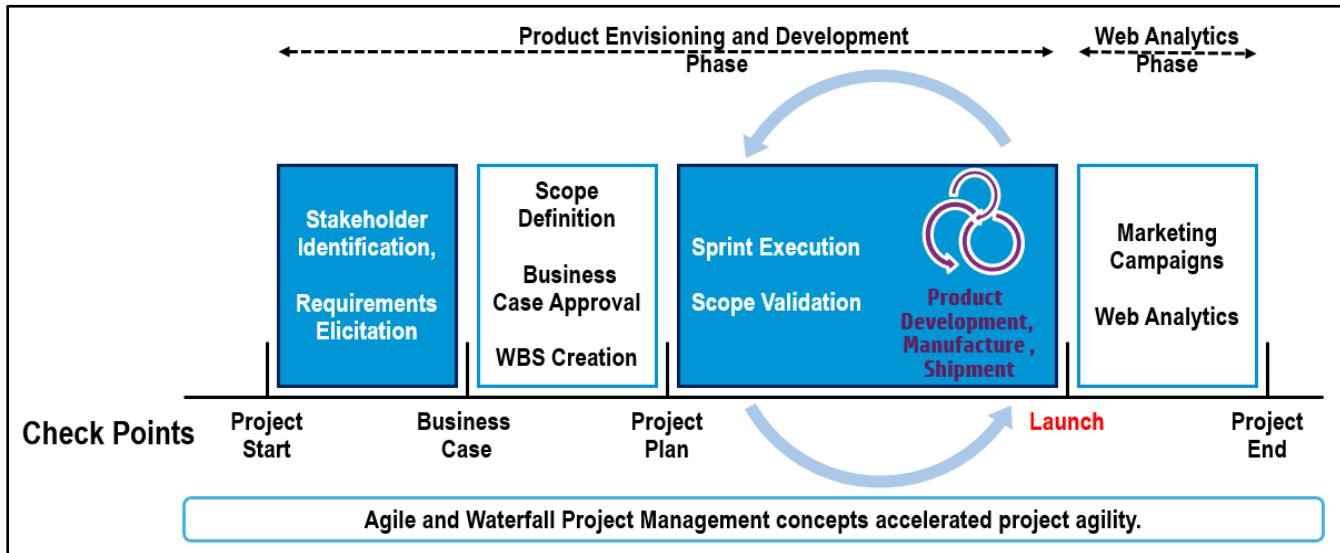


Table 1

The core Project team consisted of 5 members from the Business Management team with cross-functional expertise. The Project team had a very important role to play. This was because, in addition to the customer requirements, three other perspectives – that of the product development team (which was technical and process oriented), that of the end consumer (which was qualitative and was provided by the Market Research and Sales teams) and that of the Company Management (which concerned predominantly with financial feasibility and long term sustainability of the product) were involved in the project [table 1]. These perspectives often did not overlap and operated mostly in silos. The Project team's perspective encompassed all the other perspectives, in addition to inculcating the customer's changing requirements.

Product Development, Project Plan and Project Execution



This project, coordinated by the project team, consisted of two phases – the Product Development and Launch phase, and the Web Analytics phase. The following were few of the key Project stages:

- I. Stakeholder Identification –This critical stage followed the preliminary project research and was important as the project involved multiple leads and multiple departments. Stakeholder influence and interest along with RASCI (Responsible Accountable Support Consult Inform) charts helped organization and planning at this stage.
- II. Requirements Elicitation –Understand multiple stakeholder requirements from the project was paramount. Conflicting requirements were brought to alignment through negotiation skills. Requirement Traceability Matrix was also used. This stage helped in developing the Scope and Strategy for the project as also to define business metrics to measure launch/project success.
- III. Once the Scope of the Project was clearly defined, the Business Case was developed and subject to stakeholder approval. Following approval, the WBS Creation helped create the final Project Plan.
- IV. Product Development – The Product Development stage was divided into two sub stages – Product Envisioning and the Factory Manufacture.
- V. The WBS enabled Sprint Planning coupled with client interactions. The product was developed iteratively, with each iteration inculcating continuous client feedback.
- VI. Sprint Reviews and Sprint Retrospectives, coupled with Client Meetings, refined and added to Process Improvement and Quality Improvement.
- VII. Web Analytics phase focused on measurement using the key identified metrics to ensure the Project met the defined success metrics. After launch of the developed products on the partner websites, web analytics was used to measure product sales performance.

Methodology – While each of the four perspectives associated with the project had their own methodologies to achieve their individual objectives, the Project team used a combination of both Agile and Waterfall Project Management concepts as the methodology to enhance project, and hence enterprise, agility.

Key Risks and Mitigation - This project, like most projects in the knowledge based industries like Analytics, IT Services and Data Science, saw customer requirements change at a very dynamic pace and operated in an environment that involved many moving parts. The Digital world, especially in the Emerging Markets where this project operated in, can be classified as a vuca⁷ environment – **Volatile, Uncertain, Complex and Ambiguous**. The Project team relied on both Agile and Waterfall Project Management concepts to create a fair degree of stability in an attempt to insulate the project from the flux in which it operated in.

The key challenges that the project faced and mitigation strategies adopted were:

- I. Changing Customer Requirements - Customer requirements kept changing frequently. Agile Project Management concepts, of iterative project execution in sprints coupled with having regular client interactions to accommodate the changing requirements, helped ensure final product met customer requirements. Changes in requirements from the customer were eventually welcomed as customer satisfaction improved.
- II. Stakeholder Alignment – Extreme care was taken to ensure all stakeholders affected by the project were identified and their requirements considered. The project involved multiple senior stakeholders, often with conflicting agendas. Negotiation skills were employed to drive stakeholder alignment with the project.
- III. Triple Constraint - Changing customer requirements affected Scope, Cost and Schedule. Product launch In China was schedule constrained as launch was targeted for the Chinese New Year. Scope for the Korea launch was enhanced and thus required additional investments that affected the original cost structure. Schedule was thus changed to accommodate these changes.
- IV. Cultural challenges – Cultural factors also played a role in the project, largely was addressed by regular update meetings and over-communication.
- V. Constantly shifting project environment — The core Project team remained constantly connected by maintaining a cadence of daily stand-ins to track progress and to identify and mitigate new risks.

Critical success factors

The critical success factors for the project were:

- Managing Change - Since the project operated in an extremely dynamic environment, the following project principles helped ensure that changes were managed:
 - A Single Point of Contact within the project team was established to control communication channels.
 - The project team was constantly connected with each other to stay abreast of project developments.
 - Colocation would have been ideal however since the team operated across geographies, virtual meetings were the norm.
- Communication – Communication was paramount, also due to the multi-cultural aspect of the project. Communication took form of periodic updates of project status, change requests and project.
- Focused monitoring of the project – The project was monitored in a focused manner to ensure that the performance baselines and objectives were met.
- Constant involvement of stakeholders – This helped in ensuring that change requests were approved and that the project was constantly monitored.

LEARNINGS, TAKEAWAYS AND RECOMMENDATIONS

The following are the key learnings and takeaways from the project:

Four Perspectives - This project in the Digital Product Development space operated in four perspectives – the End Consumer and Market (includes Competitive Intelligence) perspective, the perspective of the Company that develops the Product (includes management outlook and company culture), the Product Development team's perspective (usually process oriented and technical) and the project team's perspective. The first three perspectives may not overlap and may even conflict with the others. The project team is the only team that has the widest view of the overall project and its perspective should encompass the key aspects of all perspectives.

Agile versus Waterfall – Our experience has been that projects in Digital, and in other similar new age knowledge-based industries like IT, Analytics and Data Science, see customer requirements changing at an extremely fast pace. Due to the dynamic rate of changing customer requirements, Agile Project Management (PM) offers more flexibility in accommodating changing customer requirements than Waterfall and thus Agile PM is more suited for Digital projects. This rate of change of the customer requirements should be welcomed as this attitude is key to project success.

An important aspect to consider is regarding **Agile PM in matrix organizations**. Agile PM mandates a closely knit, dedicated team that self organizes itself based on project goals. Within matrix organizations in knowledge based industries, individual team members may work on multiple projects simultaneously with varying degrees of commitment. This can divide individual dedication to the Digital project and can hamper the proactive nature of the team. Management can support team member dedication to only one project for its duration.

Colocation is most preferred in agile projects as this enhances team chemistry and dynamic however our Digital project involved cross functional and cross geographic teams. This involved active time zone management and increased cadence of review meetings. In addition to quick and short daily stand-ins (meetings that focused on what was done, what to do next and what are the perceived blocks), sprint reviews and weekly meetings were administered to track project progress. The number of such meetings depended on the complexity of the sprint. Care should also be taken to not have too many meetings that can overwhelm the team members. For projects with high degree of complexities, colocation would be ideal.

Communication – For this cross functional and cross geographic digital project, communication (to the extent of over-communication) played a key role in progress reporting and in managing stakeholder expectations. Communication involved weekly meetings as well as weekly project update mails. Technology also played an important role in ensuring the cross-functional and cross-geographic teams were constantly connected. Virtual Meetings were conducted using 'Skype for Business'.

Cultures – This project involved members from US, Europe, China, South Korea, Singapore and India. Though the PMI principles of Project Management are standardised across the globe, they may get coloured by cultural nuances. Appreciation and Respect of these cultural differences and nuances can greatly help project agility.

The Emerging Opportunity – With the developed markets seeing slower growths, emerging markets (EM) present the new frontier for growth. The key challenges in EM are that they consist of multiple heterogeneous countries, like in the Asia Pacific region, where each country requires a specialized and different operating strategy. Legal laxity and lack of regulating bodies in EM also add further challenges. This is however often more than compensated by the enormous opportunities for growth for businesses.

Implications for Project Management of Digital and Offline Projects based on Project Aspects (including Knowledge Areas)

Agile concepts were more suited for keeping pace with the changing dynamics of the project. Table 3 illustrates the how Digital and Offline fared against Project Aspects (including Knowledge Areas) and their implications for Project Management.

Project Aspects	Digital	Offline	Implications for Project Management
Complexity	Project based; complexity usually higher offline	Project based	Agile Project Management is more suited to handle the complexities of Digital, than Waterfall. Variances from performance baselines get highlighted faster through Agile concepts.
Stakeholders	End Consumer in Digital harder to define, maybe due to novelty factor	Offline End Consumer behavior research is comparatively easier to obtain.	The process of Requirements Elicitation for the New age Digital End Consumers may turn to be more comprehensive and may not be easily available. There are many historical sources for understanding Offline end-consumer behavior.
Requirements	Requirements usually change at a very dynamic pace.	The change in Requirements is not as dynamic	Agile Project Management is more suited to handle the dynamic pace of changes in customer requirements of the Digital customer, than Waterfall concepts.
Scope	Due to changes in customer requirements, Scope can get enhanced.	The change in Scope is not as dynamic	Agile Project Management is more suited to handle the dynamic pace of changes in customer requirements of the Digital customer, than Waterfall concepts.
Cost, Quality, Schedule	Due to changes in Scope, Schedule, Cost and Quality may also change.	If changes occur in Scope, Schedule, Cost and Quality may also change.	Agile Project Management is more suited to handle the dynamic pace of changes associated that the Digital customer, than Waterfall methodologies. Buffers and reserves may need to looked into based on project.
Human Resources	Project team members may require to be better connected with each other.	Project and methodology based	Colocation of Project team is usually helpful for Digital projects to keep up with the increasing vagaries of the project. Also, management commitment to ensure the core project team members are dedicated to one project, can help.
Communication	Due to more moving parts, communication is extremely important.	Project and methodology based	Communication is usually very important in Digital Projects due to the shifting project environments they operate in.
Risk Management	Increased complexities entails increased risks	Project and methodology based	Agile Project Management is more suited to handle the complexities of Digital, than Waterfall. Variances from performance baselines get highlighted faster through Agile concepts.
Procurement Management	Increased complexities may entail more descriptive contracts.	Project and methodology based	Increased complexities of Digital Projects may entail more descriptive contracts.
Culture	Project based	Project based	Cultural issues have more or less similar impact to both Digital and Offline projects.
Integration	Due to more moving parts, integration can be far more comprehensive.	Complexity based on project	Agile Project Management is more suited to handle the complexities of Digital, than Waterfall. Variances from performance baselines get highlighted faster through Agile concepts.
Customer Satisfaction	Better; as customer is more intimately involved	Project and methodology based	Agile Project Management can involve the customer more intimately than Waterfall, thereby enhancing customer satisfaction levels.

Table 3 – Implications for Project Management by Digital and Offline Projects

Recommendations to PMI:

Few recommendations, as a result of this project, to the Project Management Institute are:

Project Management in China - The Paper proposes that further research be conducted to understand how cultural differences affects Project Management, with special emphasis to China. China is today the largest Digital Market in the world. Though the PMI principles of Project Management are standardised across the globe, there are multiple dimensions where the PM concepts get coloured by the cultural differences in China. This can impede enterprise agility.

Agile in Matrix Organizations – Agile Project Management concepts may need to be refined to fit matrix organizations. Agile is definitely the way to go for Digital Projects. However, conceptually Agile Projects does not fit in the context of Matrix organizations as dedication of project team members gets divided. As matrix organizations see team members working with more than one manager and thus more than project, their dedication to individual projects get diluted. This goes against the philosophy of Agile which require team members to remain dedicated to the project so as to self-organize within themselves to take up roles based on the needs of the project.

CONCLUSION

Customer buying is shifting to the Digital space and customers are using the digital channel, in part or in full, to complete their purchases. Customers are starting to reevaluate their relationships with brands based on the latter's digital channel today. Brands that ignore this digital phenomenon would do so at their own peril. However the Digital channel comes with its own set of unique challenges in addition to enormous opportunities.

This phenomenon is especially true in the Emerging Markets. This paper looks at the successful digital launch of exclusively online products in the Asia Pacifica Japan region, starting with China and South Korea.

Digital projects operate in a Volatile, Uncertain, Complex and Ambiguous (vuca) environment and this project shows that the clear-cut product development strategy here is Agile Development and Agile Project Management. Agile Project Management (PM) clearly scores over Waterfall in overcoming many of the challenges in the execution of projects in the fast shifting Digital channel. Agile PM ensures that the client is intimately involved with the project and welcomes her changing requirements. While all aspects of PM are important, our project gave more importance to Stakeholder Management, Communication and Risk Management. In addition, the authors believe that Colocation is important in managing Digital Projects. The application of these concepts can greatly help in enhancing project, and thus, enterprise agility. These strategies can be extended to projects in other knowledge based industries like Business Analytics, Data Science and IT.

This paper shows that there are four perspectives in Digital projects with the project team's perspective encompassing all the perspectives. The paper also looks at the implications for Project Management from both the views of Online and Offline projects across key project aspects, including knowledge areas.

The authors recommend that further study be initiated by Project Management Practitioners in the area of cultural effects on Project Management, with special reference to China. China is a far too big and fast growing (digital) market today that may require customized Project Management approaches. Another area of further study is how Agile Project Management can be implemented in matrix organizations.

Also, we recommend that companies with significant retail offline exposure should work on leveraging the digital channel, coupled with social media, to offer an omnichannel experience to their customers. This combination of channel offering can help in enriching their relationships with existing customers, keep them from moving to competition and also in reaching out to newer customers, hitherto unserved by the offline channel.

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