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SECTION A – MANAGEMENT SUMMARY

Introduction to WatchThis new project

By the overview of the case study, the NightWatch (NW) is an online retail company selling watches and watch accessories. The company has a brick-and-mortar store to limit overhead and offer highly competitive prices, the NW reaches much wider client base. The NW has been grown highly successful and has grown significantly since entering the market. The online store has been improved over the years and currently offers a well-designed platform for searching and purchasing, storing and shipping stock.

John Davies (managing director) called a general meeting recently to discuss the continuous success of the engraving service and further expansions to the business model. After the discussion it was decided that the company would embrace the manufacturing of a new product called WatchThis.

In the development of new system, WatchThis, the company was decided to use a 3D printer for designing and printing watch straps. The look and feel of the new system will replicate the current system and after trailing the new system it could easily be integrated later. Functional prototype system for new project is created by the IT department and that could then be beta tested with some of their regular clients.

By the development of new process, the head of the IT department chose the DSDM Atern for the development of WatchThis system as the DSDM has many popularity and advantages rather other methodologies. All information to develop the new system are gathered from the facilitated workshop with summarised explanations.

This coursework was documented for the management summary recommendations of NightWatch company on developing the new project, WatchThis, and all explanations are documented to categorised sections and topics.

Key Techniques

The DSDM is used to show the development processes related with agile methodology implement for agile and traditional development processes. DSDM's 8 principles are essential to understand and they are related to agile development process. There are eight (8) principles to understand the DSDM and these direct the organisation to deliver consistently.

With DSDM Atern, typically the exploration and engineering considerations are addressed together in a single Timebox as they are in Scrum Script. So if desired Scrum can simply be slotted into the wider ranging DSDM Atern process.

MoSCoW prioritisation rule

A prioritisation technique that used in business management, system analysis, software development process and project management to understand with stakeholders is called MoSCoW prioritisation method. The followings are the prioritisation stages of MoSCoW rule;

MUST HAVE (or minimum usable subset) – features that must be need to include before the new process system can be launched.

SHOULD HAVE – features that are important but not necessary at current development process. They can be held back until a future update or increase project.

COULD HAVE – features that can be include on future process but not need in current development process.

WON'T HAVE – features that should not be include at the current process and explicitly excluded from scope for the plan duration of new process but they would be act in future development.

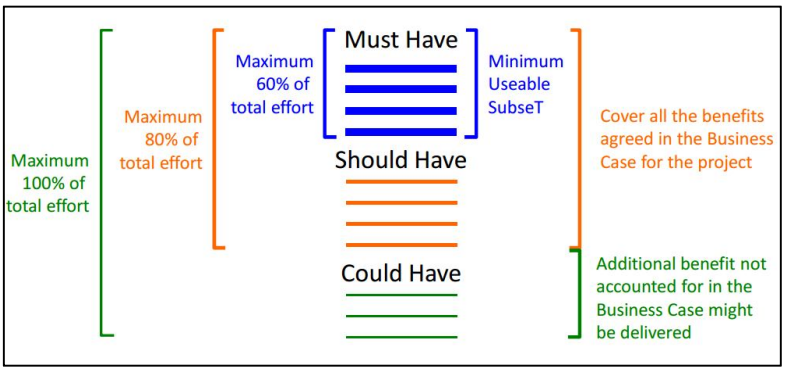

Figure: MoSCoW rule and the business case sample illustration

Time box

Timbox is used to complete the development phase within the length of planned timebox length and DSDM are executed on timboxing process. Timebox can be nested and different DSMD phases can realise in same time at one timebox. The normal length of a timebox is no longer than 6 months to set tasks to be achieved and timeboxes are not used to cure the time slips.

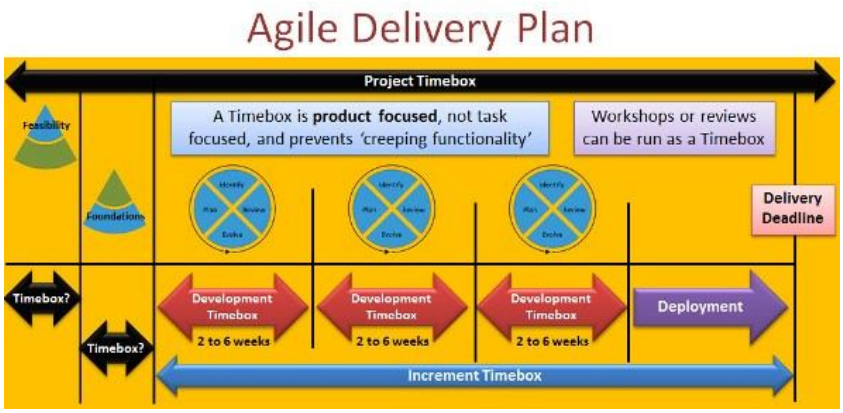

Figure: Use of Timebox throughout the DSDM

Advantages

DSDM has multiple variations and focuses primarily on the main WatchThis project with desired schedules, budget with values and principles. DSDM is recommend to use for new WatchThis project for following statements.

Focus on what business needs: developing the new WatchThis project is need to complete the desired Timeboxe and there need to consider the main functional requirements. Focusing on the main parts of the business need can complete the project more rapidly.

On time, on budget delivery: by using DSDM, new WatchThis project can be reached to the desired level at right time and financial calculation can cost less as the project is completed between planned time duration.

Reversible: changes in the development of configurations in system may responsive to change the requirements at the development of any one increment in changing the requirement priorities.

Business-objective focused: focusing on the main functional requirements can be reach the project to be perfect between scaled Timebox duration.

User participation: user participation need to active through the project lifecycle. The quality of new WatchThis can improved by the iterative nature development.

Structural design: Well structural and standard project development method rather than other Agile methodologies.

Product-based: the product based system is more and have much clients base than others.

Disadvantages

User involvement: the DSDM is a user involvement method and this is not possible to use every development parts of new WatchThis system. The new project is mainly a user based and customers request custom 3D designs.

Development problems: it can be difficult or restrictive to work with other Agile methodologies by the consideration of DSDM eight principles and strictness because the WatchThis project is mainly develop with DSDM.

Compare with other developments: DSDM is a restrictive method and there can be difficult to work with other agile methods if the company has a new development project in future.

SECTION B – REQUIREMENTS ANALYSIS AND PRIORITISTATION

B1.1: Identification of not appropriate in high level requirements

(1): User interface – User interface is not essential to similar with current website because the system has been converted into new recently and still in first time setup and not ready for all transition.

(2): Site load – On the first time of changing to new system, the website only need to run at normal speed.

(3): Manufacturing and shipping – On the first time development process of WatchThis, the company has been reached on the UK and a not very popular in other countries. Shipping is not available to think it until the products become more popular worldwide.

(4): Return items – There can consider as a customer cannot rollback his/her order after the delivery stage as the system uses online based payment.

(5): Design popularity – All customers upload their own designs and these are stored in relevant database with categorisation. Therefore, there is no need to gather with popularity or other means as the system already has the categorised database.

(6): Scare to use with 3D printing – Since the new website can request 3D designs created by graphic designers, customer can upload their own designs and already think about user help documentations and pages for questions about the process and items, most common user may not scare or fail to use.

(7): Difficulty inputs – On the new NW system, there have validations and these check all the user inputs. If a customer wants to upload a 3D design, he/she need to complete all form components with uploaded design such as dimensions, printable format, sizes, lengths, and the system check all inputs before register on database (or submission). If one input on a field is entered false, the system gives a message to user.

(8): Usual website functionalities – As the NW is in development process, there is no need to complete or have all website functionalities. The website only need to have high level requirements such as registration and login, purchasing, delivery and some other website functions are no need yet.

B1.2: Other needs of high level requirements

(1): Data control system

When developing an online store system, the database is needed store the information of products and items view their related category. The database is a computerised record keeping system and many websites and personal logs use the database system for the record and keeping of data. WatchThis need to record all products, sales activities and user records with related categorisation and should protect in a safe network.

(2): Report structures and requirements

Report documents are used to view for manager, director and high-level access persons of the company to overall cost, needs, income-outcome percentage and to think recommendations for company. The web application must be need to produce reports by weekly, monthly or yearly about sales, products and need to retrieve the high results such as top selling items, top users and most people attractive items.

(3): Backup and restore system

Backing up data include what data is backed up and how often data is backed up. The system need to back up the main important data on database such as product detail, user detail, selling activity and reports are need to back up by the time depending of process and stored on safe place or offsite.

(4): Business rules

Business rules tells the new WatchThis system what it can do in detail and focus at the macro level to optimise results. Business rules provide guidance in detail and apply for people, process, computing systems in organisation and help to achieve goals.

(5): Authentication levels

The access control level for staffs and customers at WatchThis system need to be validated with authentication systems such as username and password to enter the WatchThis system. And need to limited with their levels such as manager, admin, and staff. Reports and important data can only be viewed by high access persons such as sale directors, manager and admins.

(6): Transaction corrections, adjustments and cancellations

When a customer ordered a product online and there may be a case or something issues that cannot be describe, the customer can delete or rollback the ordered item and if the product is not delivered, the system should rollback the delivery system.

(7): International payment system

Payment is the most important method for the development of new WatchThis system as the point of the business is becomes more popular and continuous success. All customers can pay the product with international payment systems such as Visa, PayPal.

(8): Legal or regulatory requirements

There are business legal details in international business system and also WatchThis need to consider business legal details; nondisclosure agreement, founder agreement, vesting schedules. The company need to control the performance of work and workers primary source of income to provide benefits.

(9): User guideline system

On the NW new websites, user documentations and guides such as Frequently Asked Questions (FAQs), training videos are used to show the users how to use easy and understand the system, purchasing, ordering, delivering and all detail specification of system to users to guide. They also help people from asking up questions about process and items.

(10): Usability and notification

Usability is the measurement for attractive user experience associated with user interface. User-friendly design or functionalities support all users and staff to learn and use the website easily, effectively, satisfying and engaging to use. For example, clear buttons and login information, responsive styles and notification systems. If a customer orders a product and purchase with online payment, there need to reply via email or something else that is notified to customer that the product is accepted order or purchased.

B2.1: Prioritisation of high level requirements list

1. Data control system (must have)
2. Report structures and requirements (must have)
3. Backup and restore system (must have)
4. Business rules (should have)
5. Authentication levels (should have)
6. Transaction corrections, adjustments and cancellations (should have)
7. International payment system (could have)
8. Legal or regulatory requirements (could have)
9. User guideline system (won't have)
10. Usability and notification (won't have)

B2.2: Justification of prioritisation

Functional requirements

Data control system (must have) – data control system with a system main database must be need to control product data, user account data and other organisation important data.

Report structures and requirements (must have) – report plans must be need for product failure and benefits. The NW need to consider and think about the products production by viewing the reports with charts and other graphical presentations.

Backup and restore (must have) – the important data files and database file systems must need to backup with daily, weekly or monthly by their importance priority. The backup data are stored at a offsite or secure place to prevent from outside attackers and disaster cases.

Business rules (should have) – when developing a business, company or organisation, the business rules should need to place for staff and organisation. By placing the business rules, the organisation can it can process in detail and focus at the macro level to optimise results.

Authentication levels (should have) – the authentication access should need to divided by the user priority such as admin level, manager level and so on.

Transaction corrections (should have) – when taking a business with deliver service, customer ordering process should to be structured with rollback or cancel delivery until the product is not purchase or on processing stage. This function should have on WatchThis project for customer satisfaction but there can need to think about the data control to store the order activity log and need to update the database if the process has been changed.

International payment system (could have) – the online based system could use the international payment method system to purchase by all customers who use different payment methods, and the system could use common and popular payment methods to be easily purchase by customers.

Legal issues (could have) – the organisation could have the legal issues to protect if someone or organisation makes the commonalities as the NW trademark or logo, it leads to serious (abuse) legal issues. The company need to structure the business licenses, non-disclosure agreements, zoning, copyright and patent issues.

Non-functional requirements

User guide (won't have) – the user guideline system won't to have at the beta (test) stage of the project. The most common users already know and understand about the whole project and how to use it and user guideline and directory systems are need for further propose.

Usability (won't have) – the benefit of usability extends beyond improving the user interface and interface design. Usability can reduce costs of e-commerce and software but they won't to be consider as high level.

SECTION C – LEGAL, ETHICAL AND PROFESSIONAL ISSUES

C1: Role of data controller and LSEPI

Data Controller of the personal and company data need to be processed and how a person who determines the purposes for non. Unless that need to be processed and accurate data are responsible for security and access permission of the online system. Data Protection Act will need to be followed by Data Controller and if any there any failure to comply with them, there would be a breach in the Act.

Performance reviews of the Data Controller in NW are to make sound fact based judgement which means decision making in court is not expected to base judgement on subjective preferences or on personal, to work with multiple solutions and determine the most suitable one, to consider the main objective fact, let the personal mid feeling not to affect to decision making. But there can some negatives such as fail to make direct unit short solution or apply complex approaches in solution.

By appointing Data Controller in NW can get aspects for legal, social, ethical and professional issues to raise the NW company. All customer personal data can keep safe and secure by the Data Controller, and the Data Controllers can also control the flow structure of information in or out in NW. These flows rules to data with the lead of legal, ethical, social and professional issues that are abused by bad organisations.

Two practical examples for each of LSEPI

LEGAL ISSUES

1. If someone, other company or organisation makes the commonalities as the NW trademark or logo, it leads to serious (abuse) legal issues.
2. The someone or outside attacker may hack or enter the system database and hold data in negative use, privacy data handling of customer transparency and trust on NW may less and the company (NW) will face serious legal issues.

SOCIAL ISSUES

1. Having opposite of the desire effect which means the NW cannot or service the customer satisfactions at general service level, there can contrary of the laws and customer society; devoid of antagonistic to sociable instinct or practises.
2. The customer database of the NW is hacked or transmitted by hacker or outside attacker by electronic or mechanical means, this cause will lead to social problems between NW company and customers.

ETHICAL ISSUES

1. 3D designers from NW should need to develop, design and produce new and attractive designs as in customer orders and other printing watch straps. There need to meet the customer requirements and in-house developments are mission-critical and if cause failure, NW can cause bad ethical behaviour.
2. All staff on the NW (especially system controllers) need staff-training to take care and good service and privacy for customer satisfaction and trust. The controllers of the customer data need to keep private and this information are not let to show public. So data controller staff need to maintain and keep secure all customer data for ethical issues.

PROFESSIONAL ISSUES

1. Digital networks are key enabler in NW organisation to enhance ability to communicate, store information and connect with clients. New technologies bring new capabilities and increase risk of uncontrolled data disclosure. Therefore, the NW have ability to provide seamless, high-quality customer service supported by well-articulated data privacy and information security strategy for company professional issues.

2. The NW use development methods and techniques such as OOAAD, RAD, and SSADM to build the system effectively. However, they have no or qualified standard framework to guide, the NW will have professional issues between developers and company.

C2: BCS Code of Conducts

The BCS Code of Conducts are the professional (standard) set of requirements of the of business by the society with the members by direct professional matters. Codes are need for establishing public trust for NightWatch, commitments, education professionals and agreements. But they are not law or ethical framework to consider in functional requirements. These four following particles are professional issues with the system developer contracted by the NightWatch company and considerations.

The first section of the BCS is Public Interest. The NightWatch company need to contract the ethical understanding system developer for system development of WatchThis. First, the system developer may fail to understand (not) all BCS ethics in this section and the system developer need to indicate the consequences and risks of the restriction. The system developer regards for security, privacy, wellbeing of clients and environment. Legitimate rights need to be regarded and conduct activities without discrimination by system developer at any condition or requirement. By using the benefits of IT, the system developer need to promote equal access for all sectors in society for NW.

The second section is the Duty to the Relevant Authority, for example the system developer of the NW need to carry out professional responsibilities with the relevant authority requirements. The NW develops new project with 3D printing designers, programmers, web-developers and system database administrators with in-house development for skill shortage with business knowledge. The customer account and private data information system of NW need to take or control by trust staff and developers. And no one who are not related with the customer or private data system can't have the access to view information or else they are limited by law.

The third section on the BCS is the Duty to the Profession, as example the system developer of the NW need to take professional services and don't need or not to take any actions which could bring into disrepute to the profession. While developing the WatchThis, the system developer has or else build a good relationship with staffs of NW because staffs don't have higher or proper skills, use of IT as the system developer. So the system developer need to have integrity and respect in staffs of NW for improvement of professional standards with participation of enforcement and development in process.

The fourth section is the Professional Competence and Integrity, as example, the system developer need to know and learn about knowledge, standards and skills of IT and should need to upgrade these former facts to keep maintain and development new functions for NW. The system developer of NW need to have respect to all other staff on NW and need to value to each other, and show offer honesty on working for NW.

BCS codes gives many practises to all staff of the NightWatch company to regard professional standards and procedures. They are used in professionals of system developer in NW and collect professions, get customer trust, set rules and standards. These codes guide, enforce and provide accountability for NW company on development of WatchThis. All customer data and information will be secure by system developer for new online system with the rules of BCS.

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