



Kwantify

DEVELOPMENT PROCESS

REVISION HISTORY			
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1. About CSM

CSMPL (Cybertech Software and Multimedia Pvt. Ltd.) was established in 1998 as an Organization where people are made to think more than they think which helps in creating a knowledge bank. As an IT hub in Eastern India, Bhubaneswar was the commencing place for CSM. Ambitions were to provide web-based solutions & familiarize people to the world of Global Internet and Intranet and bring in relevance of web designing and web hosting for international business relationship.

CSMPL works in software development and consulting work. The major domain areas are Governance (Health, Education, Social sector, Regulatory and Food security), Oil & Gas, Project Management, HRMS, Payroll and Accounting etc.

In the initial stage of business, the organization structure was kind of flat hierarchy with Production and Marketing department as the major departments. Later with the growth of the organization (both vertical and horizontal), the hierarchy structure also got changed and became more structured.

In March 2006, CSM got quality certificate of ISO 9001-2008 for software development work. With the introduction of ISO, the organization got into more process oriented activities where monitoring and evaluation had a great role to play.

After 3 years of ISO implementation, the CSMPL got the CMMi Dev Level 3 certification in April 2013. CMMi focused more on the software development process improvisation. As CSMPL has already stepped into infrastructure consulting work in 2011-12, it acquired ISMS Certification (ISO 270001:2005) in July 2013.

CSMPL Head office and development center is located at Bhubaneswar, Odisha and it has one SBU at Patna, Bihar. There is one resident office at Chandigarh and implementation team at Khartoum, Sudan as well as Joda, Odisha.

Total strength of the organization is at present 316 working in 5 locations, 8 Departments and 31 sections. Some employees are also deployed onsite (PMU) and Sanjog Helpline Call center.

The clientele of CSMPL spread across India, Middle East and Africa (Sudan, Ethiopia) region. Major clients are from Government and PSUs.

2. About Kwantify

In 2001 when CSMPL got a work in British Petroleum, for an Oil & Gas project, the idea of having a project management tool was conceived by the senior members. After delivering the project to the client, CSMPL started exploring on

how this can be internally used. The system known as **Knowledge Management Tool** was then developed by the internal development for the project monitoring purpose.

The KM Tool was then started adding modules that are useful to other departments like HR, Admin and Marketing.

In 2002, a full fledge office portal was launched internally with the name “**GyanSanchita**”. This portal had modules like Leave, Tour, News, Announcement, Daily Attendance, Advance and the project monitoring suit.

The product got a new face when this was procured by a company based in Dubai, UAE with additional 10-15 modules. The product name was then given as **D2D as “GyanSanchita”** was difficult to pronounce and understood by UAE people.

The new version of D2D Was re-launched with the name “**Kwantify**” in 2004-05 and more and more clients like GNPOC (Sudan), Metito (Sharjah), Goodyear tyres (Dubai), Petrodar (Sudan), Jumbo Electronics (Dubai) etc started using the system in various customized form.

The initial version of Kwantify was developed in ASP technology with database as SQL. But later on the same was re-developed in .NET and database variances were SQL and ORACLE. There is lot of enhancement done in the framework of Kwantify and now it’s in .NET but the modules those were developed in ASP are yet to be converted to .NET completely.

The latest version of Kwantify is **Kwantify 5.0**. This version is used in CSMPL and following modules are available in the portal.

Table 1: Module List in Kwantify

SI#	Global Links	Primary Links	Department Involved
1	Business Utilities	Local Visit	Admin, Accounts
2		Visitor Register	Admin
3	Communications	Announcement	HR
4		Meeting Schedule	ALL
5	getITrite	Assets	NSA
6		Change	NSA
7		ITIL Reports	NSA, Admin & HR
8		Master	NSA
9		Request	NSA
10		S & M	NSA
11		Unassigned Request	NSA
12		Workstation/User	NSA

13	HR Tool	Appraisal	HR
14		Approval Link	System Admin
15		Attendance	HR
16		HR MIS	HR
17		Recruitment Module	HR
18		Training New	HR
19		Online Assessment	HR
20		WORKShift Assignment	HR, BSS & NSA
21		CMMi-QMS	BSS
22	Knowledge Tool	Do You Know	Admin
23		Employee Directory	ALL
24		KRA Process	BSS & NSA
25		My Contacts	Admin
26		NSA Documents	NSA
27		Project Information	BSS
28		Project Monitoring	BSS
29		Project-Task mgmt	BSS
30	Manuals and Forms	Advance and Claims	Accounts
31		Employee Handbook	HR
32		End of Service	HR
33		ERS	HR
34		Feedback System	BSS
35		Greetings	HR
36		Holidays	HR
37		Leave	HR, Accounts
38		Tour	Admin, Accounts
39	Office Utility	Asset Issue/Return	Admin
40		Business Card	Admin
41		EPABX Report	NSA
42		Fixed Assets	NSA, Admin
43		Library	Admin
44		Office Stationary	Admin
45		Printer Report	NSA, Admin
46		Vehicle Requisition	Admin
47		Vehicle Tracking	Admin
48	Payroll	Income Tax	Accounts
49		MIS Report	HR, Accounts
50		My Income Tax	Accounts
51		My Salary Slip	Accounts
52		Payroll Allowance	HR, Accounts
53		Payroll Deduction	HR, Accounts
54		PayRoll EPF	HR, Accounts
55		Payroll Head	HR, Accounts

56		Salary Statement	HR, Accounts
57	Publication Tools	Image Gallery New	Admin
58	Sales Monitoring	Account Transfer	EBG
59		Bank Guarantee	EBG, Accounts
60		Business Plan - WO	EBG
61		Collection	EBG, Accounts
62		Guest Register	EBG
63		Invoice	EBG, Accounts
64		Master Forms	EBG
65		MIS Report - WO	EBG, PO
66		Opportunity	EBG
67		Opportunity Business Plan	EBG
68		Resource Planning	EBG
69		Sales Review	EBG, PO
70		Work Order	EBG
71	Accounts	Account Info	Finance
72		Audit Statement	Finance
73		Clear Cheque	Finance
74		Manage Cost Center	Finance
75		Manage Year	Finance
76		Voucher Entry	Finance

3. Implementation challenges of Kwantify

3.1. Current scenario of implementation

Kwantify is a Knowledge Management and Productivity tool of CSM. This system also follows the automated work flow process against many activities across the departments. Some of the modules are developed based on specific requirement of activities in a particular department. Rests of the modules are developed for common cause.

Kwantify Portal is now under maintenance. As per the communication strategy the requirement is coming from the different dept. of CSM through the concern client authority. The request is process through the delivery manager to Project Manager. Project Manager is the authority decides the type of the requirement (i.e. New Development or Enhancement)

Kwantify Portal V5 follows some of the area of QMS Process. Mainly Kwantify Portal V5 follows the prototype model. Whenever there is a requirement from any department, as initial discussion is carried out by the team with the client against the requirement. In case the requirement is for new development PL/TL prepares the plan and estimation and submitted to the Project Manager. This estimation is shared with the department for senior management approval. Upon getting the

budget approval, BSS prepare the project development plan and shared with the department. Based on the approval prototype is designed by the team. Upon prototype approval by the client, team starts the development. In case of enhancement PL/TL fill up the change request form and submitted to the Project Manager and delivery manager for the client approval. After due approval from the department, the development work starts that includes coding, testing, UAT and final rollout.

3.2. What are the problems faced on day to day basis

Currently the portal administration section is managed by HR department. Most of the change request/new module development requests come to this department. But there are few modules which are directly handled by department head/nodal person. In that case information is shared with HR department for link assignment and training program.

The requirements are coming from different departments and the development is also done by different teams, it's observed that implementation becomes difficult. Prioritization lies with project manager and sometimes deliverable affected due to wrong decision.

Currently there are three separate teams working in Kwantify. One team is looking after the sales monitoring module implementation, another is handling the payroll and accounts modules whereas rest of the modules are handled by the third team.

Due to multiple teams and multiple sources of request coming, sometimes redundant modules are developed. Also the implementation lies completely with the department who has conceptualized the module. Later when the module needs to be integrated with other modules, issue erupts and many times modules are redeveloped to a large extent to integrate. Some of the modules are inter-dependent to multiple departments and it requires a common understanding and integration in the system as well as procedure followed.

Any system developed in CSM has to link up with the organizational policy and procedure. Sometimes the modules developed are found not linked to the procedure followed and the policy/procedure is not being updated in later stage.

Though Kwantify is initially developed for its own consumption, but later on it was implemented in other client location and it was treated as a product rather than a bespoke system.

With productisation in mind, it's very much required to look each requirement in that angle. Many a times it's difficult to control the individual requirement and make it generic for other instances.

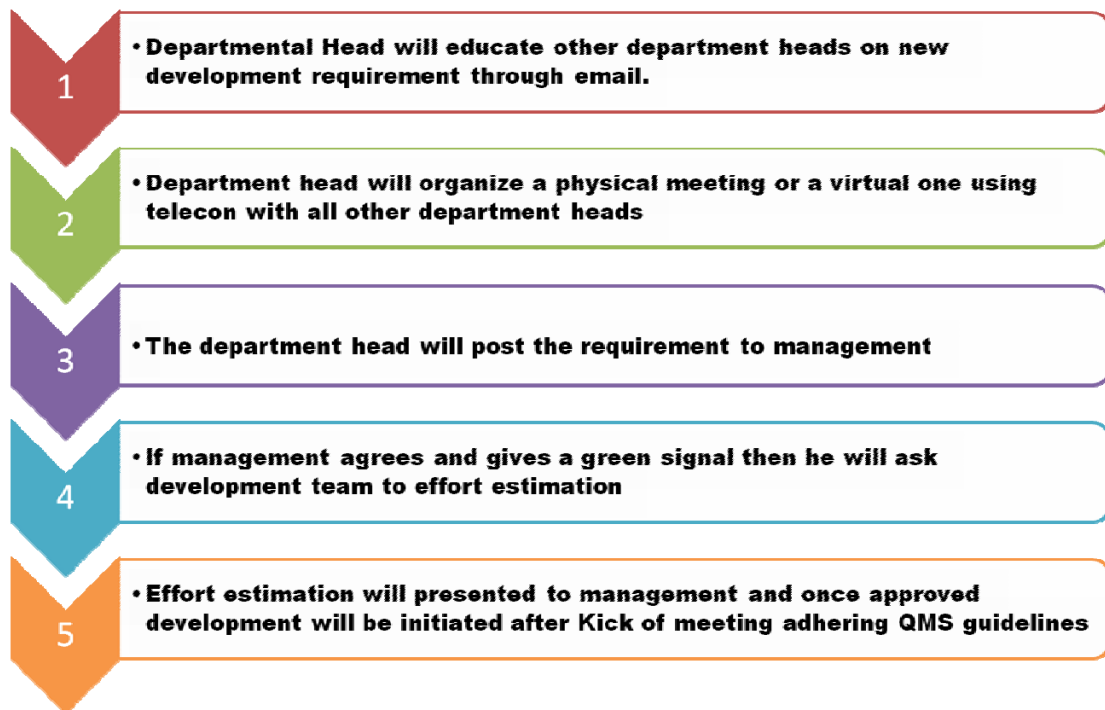
4. Process of new module development

The process of new module development will be always initiated and put forward to management by Department Head using the specified indent mentioned in Annexure-I.

Any internal stake holder in CSM may require new module development in Kwantify which may be having good business implications.

The same has to be presented before the department head, the department head will then take it forward.

Below is the process flow which the department head would adopt in new module development.



5. Process of change request

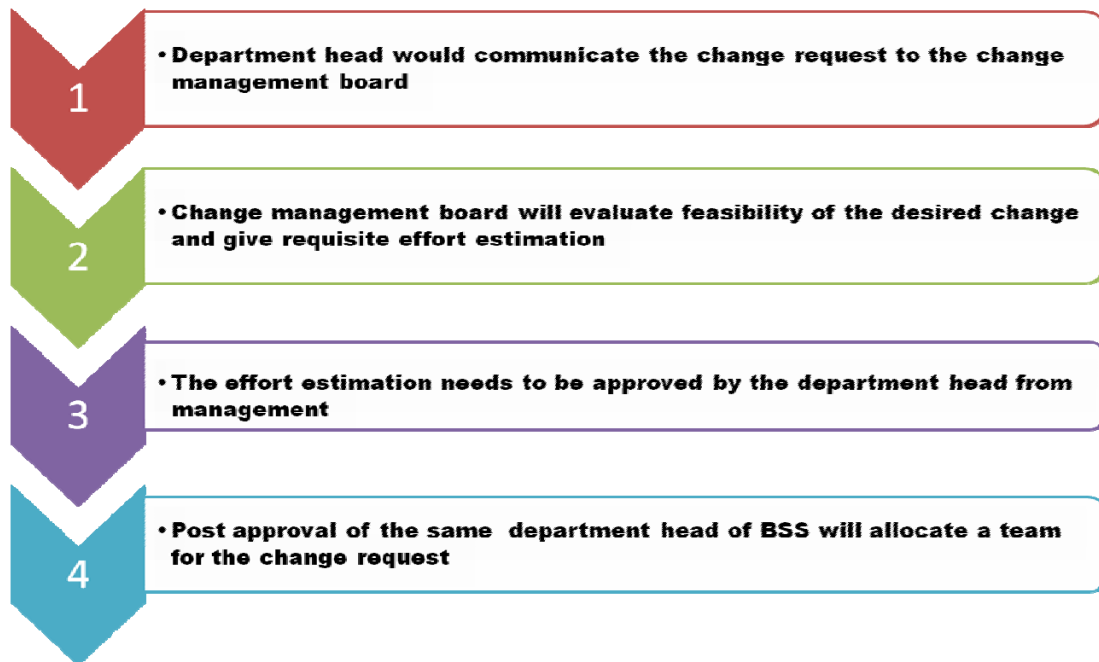
Similar to new development request, if the module needs any enhancements in terms of process or forms, the department head can initiate the change request process as per the Quality Manual followed by production department (BSS).

The change request form (Annexure-II) needs to be filled in and approved by concerned official before the CR development and implementation starts.

The Change request needs to be evaluated by the change request board of Kwantify project before it gets approved by the department head.

It's the responsibility of the department head to take necessary approval on the additional effort estimated cost from senior management.

The below steps indicate the process flow of change request management –



6. Role of a steering committee for controlled implementation

Looking at the current scenario of module development and implementation of modules in Kwantify, we have a centralized core team who looks after the requirement, development, and implementation part of any module developed in Kwantify. The core team can be termed as the steering committee.

The steering committee has members from each department. It's not necessary that the department head to be part of the steering committee. But, the person must be senior member in the department nominated by the department head.

- 6.1. Any new development in Kwantify will be initiated only from the Department heads of various departments in CSM. Requirement may be cited by any one in CSM but the development request will be initiated by the Department Head of the particular department which would broadly own that module in Kwantify.
- 6.2. The Department heads of other departments may be or may not be involved directly into the new development but will be communicated on the proceedings.
- 6.3. The members of the steering committee are responsible in owning the new development or change request desired in Kwantify at any given point of time.

- 6.4. The head of any department who is intern an active member of this steering committee has responsibility –
- 6.4.1. Educating other members of steering committee on requirement
 - 6.4.2. Management approval for new development
 - 6.4.3. Participating in meeting with development team for change requests.
- 6.5. The steering committee would also ensure that no module development leads to duplicity of work i.e. development of a module where a similar module is available in the frame work of Kwantify catering to similar business requirements in the organization.

Annexure-I (Indent FORMAT: for new application development)

Date of Request (DD-MM-YY):

Requested by (Name & Dept name):

Priority (High/Medium/Low):

Objective:

Description of New Development (including reasons) :

Benefits of new development in following aspects:

1. **Business Growth:**
2. **Productivity:**
3. **Quality enhancement:**

Required Effort in man days (If estimated by development Team):

Indent FORMAT: for change/enhancement of application

Date of Request (DD-MM-YY):

Requested by (Name & Dept name):

Priority (High/Medium/Low):

Module Name where changes required:

Objective:

Description of Change/Enhancement (including reasons) :

Benefits in the following aspects due to change/enhancement:

4. **Business Growth:**
5. **Productivity:**
6. **Quality enhancement:**

Required Effort in man days (If estimated by development Team):