

SERVICE IMPROVEMENT OF CENTRAL DATA MANAGEMENT CELL

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Abstract - Central Data Management Cell (CDMC) is the department which looks after the Master Data Management (MDM) of the company. MDM contains information on all the materials, services and vendor that a company employs, procures, produces, stores or sells. It is the company's central source for retrieving specific data. This information is stored in individual material, Service & vendors master records. The aim of the study is to improve CDMC services. CDMC creates codes for new material, Extension, service and vendor as per the request of user. As per the analysis of past data provided by CDMC, around 53% code is created within the time limit. Workload assessment is done to find optimum manpower requirement and a User satisfaction survey is conducted to find root causes of dissatisfaction of CDMC users. In addition, Specific problems faced by the User leading to their dissatisfaction with CDMC we also identified by one-on-one interactions & telephonic conversation. For every problem, appropriate suggestions for improvement are proposed with specific enablers.

Key Words: Central Data Management Cell (CDMC), Master Data Management (MDM), User Satisfaction Survey

1. INTRODUCTION

Central Data Management Cell (CDMC) looks after Master Data Management (MDM) which contains information on all the materials, services and vendor that a company procures or produces, stores, and sells. It is the company's central source for retrieving specific data. This information is stored in individual material, service & vendors master records. The all master data is used by all components in the SAP System. The integration of all material, service, and vendors' data in a single database object eliminates redundant data storage. In SAP system, the data contained in the MDM is required, for example, for the following functions:

- Purchasing for ordering
- Inventory Management for goods movement postings and physical inventory
- Sales and Distribution for sales order processing.

The main purpose of CDMC is to ensure required Master data management available in SAP and meet business requirement for the company.

CDMC looks after three major types of department which are:

- Material

- Service
- Vendor

List of activities performed by CDMC:

➤ Material Master

For material master, Master Data Record Manager (MDRM) tool is used. Request is done through the portal and e-mail as some of the user is not provided with the portal. It is an online process.

- Code Creation
- Code Extension
- Codification of Sales and Distribution Channel
- Code Blocking / Unblocking
- Update Material & Purchase group
- Quality Inspection of code
- Update HSN (Harmonized system of nomenclature) & Tax for GST

➤ Service Master

For service master, SAP interface is used. Request is done through the portal and e-mail as some of the user is not provided with the portal. It is an online process.

- Code Creation
- Code Blocking / Unblocking
- Update Scope of work
- Update SAC (Service Accounting Code) & GST

➤ Vendor Master

The process for vendor master is offline process. Vendor has to fill the documents offline such as vendor registration form-1 (Domestic and Foreign vendors), vendor registration form-II, Land vendor registration form, FI & Retainer vendor registration form.

- Code Creation
- Code Extension
- Code Blocking / Unblocking
- Update Bank Details of Vendor
- Update GST No. & Classification of Vendor
- Blacklisting / Re-listing of Vendor

➤ Miscellaneous activities

- Maintain MRP Data of Auto Indent Items

- Prepare MIS report
- Special assignments

1.1 Impacts of CDMC

- Without Master data Material Management (MM) activities cannot be carried out on day to day basis.
- If Material Master Data is not maintained, it will have an impact on indent; Purchase ordering, Gate entry, Maximum Retail Price (MRP), Inventory control, Report, Costing and verification of material.
- If Vendor Master Data is not maintained, it will have an impact on purchase order, vendor rating, vendor payment, Reconciliation, Advance payments, Tax Deducted at Source (TDS) and other taxes.
- If Service Master Data is not maintained, it will have an impact on indent, work ordering, entry of service, Management Information System (MIS) reports, Costing, verification of services.

1.2 Timeline for CDMC Activities

- For new material code creation, the time limit 2 working days from the request received through MDRM tool.
- For new material code creation, the time limit 3 working days from the request received through mail.
- For new vendor registration, the time limit is 2 working days from the request received through Vendor Registration Form 1 & 2 (VRF-1 & 2).
- For new activity code creation, the time limit is 2 working days from the request received through SAP portal.
- On urgency basis, the code is created in same working day.

1.3 Genesis of the problem

As per the analysis of past data provided by CDMC, around 50% of requests are completed within the time limit which creates problem for customer. For CDMC, customers are internal department of the company. So delay in the completion of request raised affects the other department to process. One more problem is rise in inventory level and customer dissatisfaction.

1.4 Objective to be addressed

To improve the services of Central Data Management Cell (CDMC) and reduce the time taken to create a code.

1. DATA COLLECTION & ANALYSIS

3.1 Process flow charts of the of different activities carried out

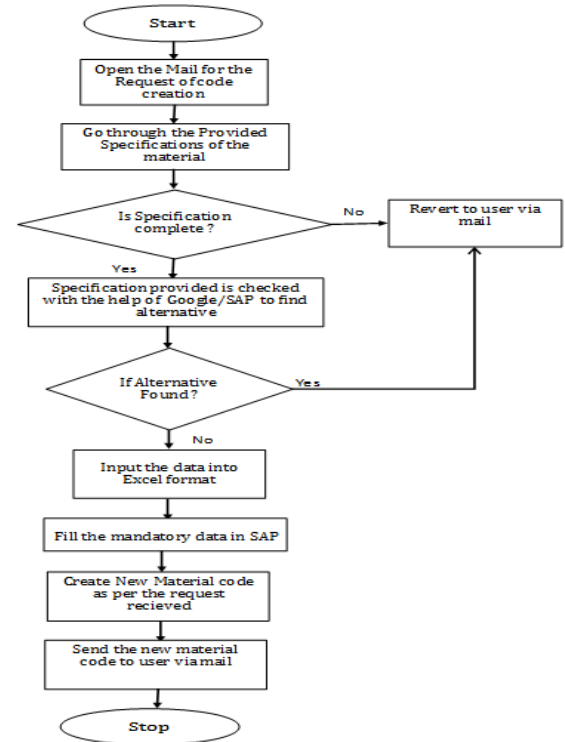


Chart -1: Process flow chart of Material Code Creation from mail

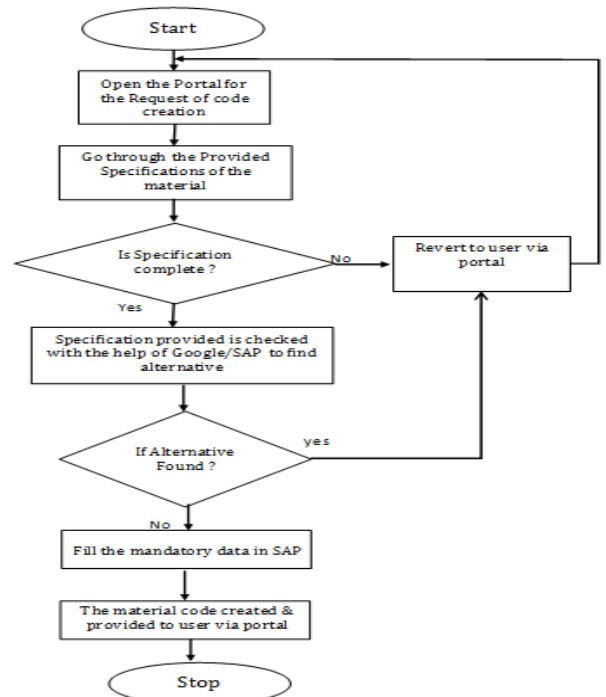


Chart -2: Process flow chart of Material Code Creation from portal

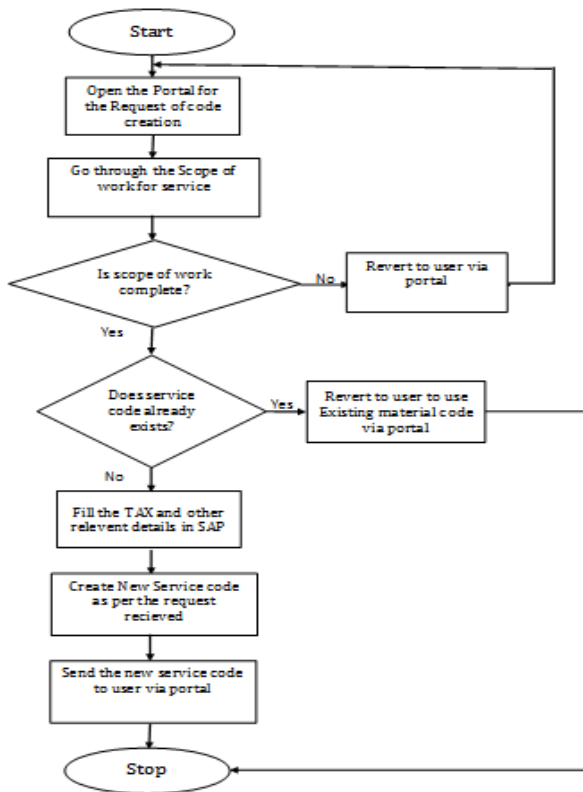


Chart -3: Process flow chart of Service Code Creation from portal

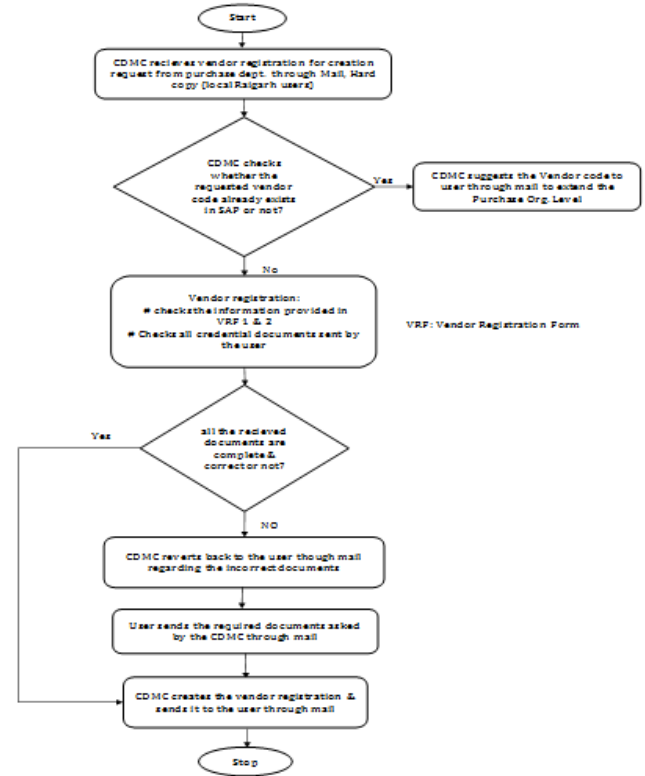


Chart -5: Process flow chart of Vendor Code Creation

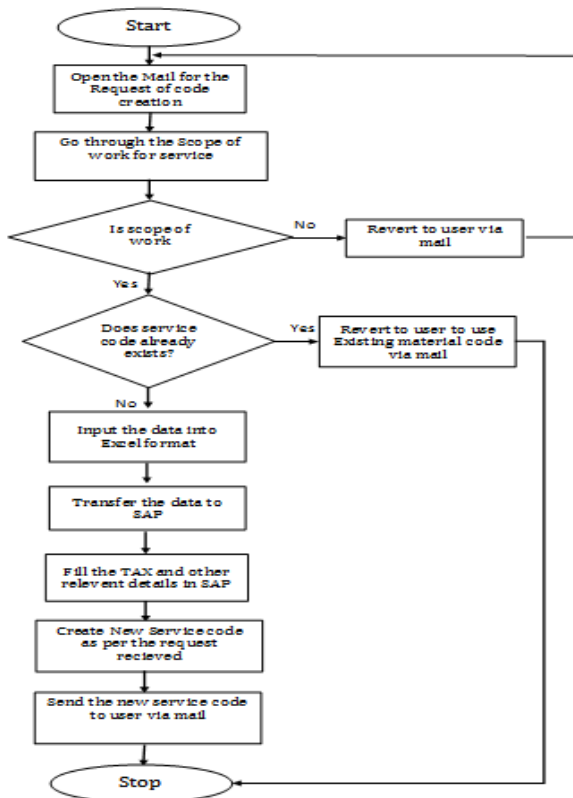


Chart -4: Process flow chart of Service Code Creation from mail

3.2 Code Creation & Extension

The data of request received and code created is collected from the department for analysis. By analyzing the data, the average code creation and request received in a day is found out. The data is of five months.

Table -1: Material Code Creation

Material Code Creation		
Month	Request for code creation	Code created
July'17	2457	2729
June'17	524	844
April'17	618	1366
March'17	1982	2055
Feb'17	6771	7116
Total	12352	14110
Average	2470.4	2822
Avg. code created in a day	82.35	94.07

Material code creation is more than request received for code creation because some of the request for code creation is received from mail. The average material code created in a day is 94 and request received in a day 82 from the MDRM tool and 12 from mail.

Table -2: Service Code Creation

Service Code Creation		
Month	Request	Done
July'17	211	171
June'17	144	100
April'17	148	111
March'17	289	248
Feb'17	353	341
Total	1145	971
Average	229	194.2
Avg. code created in a day	7.63	6.47

The average service code created in a day is 6 and request received in a day 8 through SAP portal.

Table -3: Vendor Code Creation

Vendor Code Creation	
Month	Code Created
July'17	175
June'17	177
April'17	157
March'17	196
Feb'17	154
Total	859
Average	171.8
Avg. code created in a day	5.73

Table -4: Material Code Extension

Material Code Extension		
Month	Request	Done
July'17	841	1015
June'17	602	21152
April'17	931	3303
March'17	1073	3504
Feb'17	927	3173
Total	4374	32147
Average	874.8	6429.4
Avg. code extended in a day	29.16	214.31

Material code extension is done when the material code already exists with same specification and requirement in some other department. The same material code is extended to the user. If inventory for the material is available then the user can use the material with that material code. If not they can contact to purchase department for the purchase order creation

1.3 Time Range for Code Creation

Table -5: Material Code Creation

Range (in days)	No. of code created	Percentage	Cumulative Percentage
< 1	526	35%	35%
1 - 2	266	18%	53%
2 - 3	153	10%	63%
3 - 4	127	9%	72%
4 - 5	87	6%	78%
5 - 6	101	7%	84%
6 - 7	55	4%	88%
7 - 8	42	3%	91%
8 - 9	37	2%	93%
9 - 10	9	1%	94%
> 10	91	6%	100%

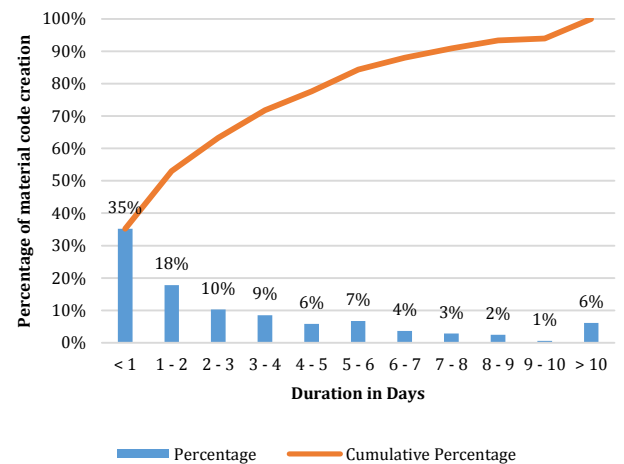


Chart -6: Cumulative Chart of Material Code Creation
After the analysis of the data, it is found that within the time limit i.e. 2 working days only 53% material code is created which means 47% of material code is not created within the time limit.

Table -6 Service Code Creation

Duration (in days)	Frequency	Percentage	Cumulative frequency
Within 1	511	57%	57%
1 - 2	135	15%	72%
2 - 3	92	10%	83%
3 - 4	37	4%	87%
4 - 5	33	4%	91%
5 - 6	12	1%	92%

6 - 7	27	3%	95%
7 - 8	19	2%	97%
8 - 9	4	0%	98%
9 - 10	5	1%	98%
> 10	17	2%	100%

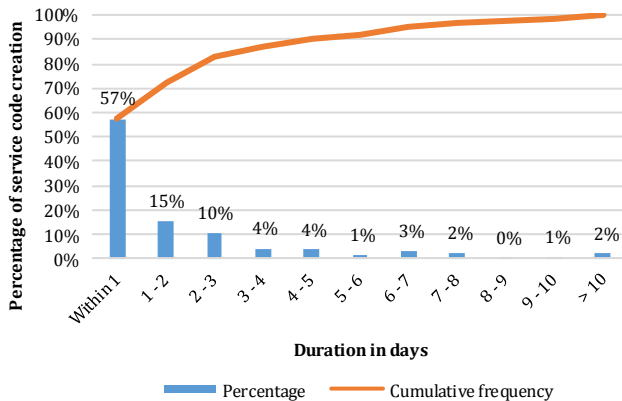


Chart -7: Cumulative Chart of Service Code Creation

After the analysis of the data, it is found that within the time limit i.e. 2 working days 72% service code is created which means 28% of service code is not created within the time limit.

Table -7: Vendor Code Creation

Range (in days)	No. of codes created	Percentage	Cumulative Percentage
Within 1 day	35	33%	33%
1 - 2 days	9	9%	42%
2 - 3 days	13	12%	54%
3 - 4 days	7	7%	61%
4 - 5 days	3	3%	64%
5 - 6 days	3	3%	67%
6-7 days	4	4%	70%
7 - 8 days	3	3%	73%
8 - 9 days	5	5%	78%
9 - 10 days	4	4%	82%
10 - 11 days	1	1%	83%
11 - 12 days	2	2%	85%
12 - 13 days	0	0%	85%
13 - 14 days	4	4%	89%
14 - 15 days	0	0%	89%
More 15 days	12	11%	100%

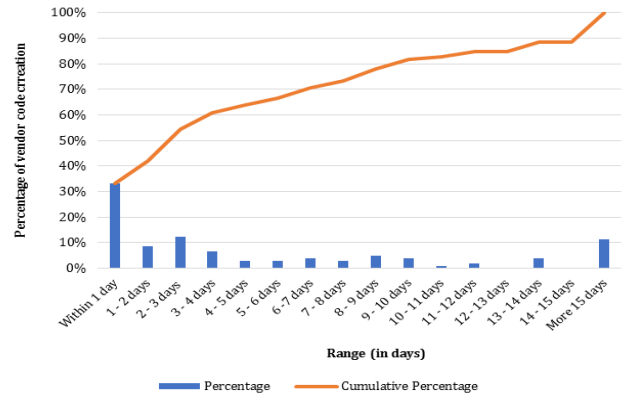


Chart -8: Cumulative Chart of Vendor Code Creation

After the analysis of the data, it is found that within the time limit i.e. within 2 working days 42% vendor code is created which means 58% of vendor code is not created within the time limit.

After analyzing the above data, it is clear that there is some major drawback in the process of CDMC as only 42% of vendor code and 53% of material code is created within the time limit.

1.4 Workload of CDMC

Table -8: Workload of CDMC

Master	Activity	Data			Observed Processing Time per request (in mins.)	Man-minute required per day
		Avg. Nos. of Request (per day)	Period	Source		
Material	Code Creation	82	Feb - July '17	CDMC MIS	7	574
	Code Extension	29			2	58
	HSN code Updation	60	21 - 25 Aug '17	Observation	0.16	10
	Code Unblocking	7			5	35
	Code Quality Inspection	1			2	2
	Sales view	3			2	6
	Total Material Master Man-minutes per day					
Service	Code creation	8	Feb - July '17	CDMC MIS	9	72
	SAC updation	7	28 aug - 2 sept '17	Observation	2	14
	Scope of work definition	6			4	24
	Code Unblocking	3			4	12
	Misc. Activities	NA			NA	150
	Total Service Master Man-minutes per day					
Vendor	Code Creation	9	Feb - July '17	CDMC MIS	21	189
	Code Extension	1			10	10
	Details Updation	9			7	63
	GST Updation	4	4 - 9 sept '17	Observation	8	32
	Code Block / Unblock	3			10	30
Total Vendor Master Man-minutes per day						324

9	How often the request for Material code extension is processed within 1 day by CDMC?	36%		
7	The request raising procedure for Material code creation is user friendly.	37%	Request raising procedure is not user friendly	37%
8	What is your overall satisfaction level with your experience with CDMC?	37%	Dissatisfied with CDMC	37%

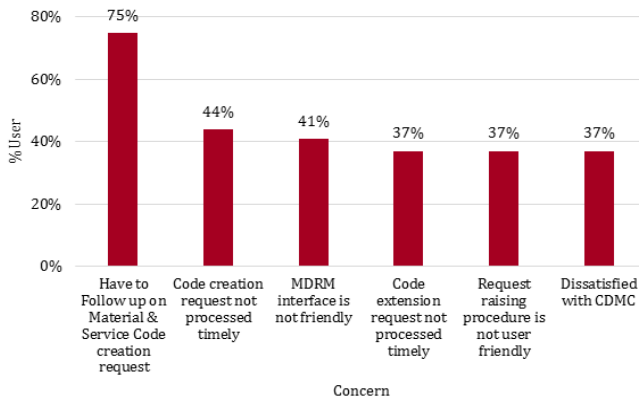


Chart -9: Bar Chart showing User's Concern

In addition, Specific problems faced by the User leading to their dissatisfaction with Material & Service Code were also identified by one-on-one interactions & telephonic conversation with various Users.

Table -12: CDMC User Survey Result (Vendor Code)

S. No.		10	>=9	>=8	>=7	>=6	>=5	>=4	>=3	>=2	>=1
1	How often you don't have to follow-up on your request for Vendor details updation?	7%	16%	21%	28%	28%	28%	35%	40%	56%	100%
2	How often you don't have to follow-up on your request for Vendor Code creation ?	7%	19%	28%	33%	35%	35%	40%	47%	60%	100%
3	How often the request for Vendor code creation is processed within 2 working days by CDMC?	60%	70%	74%	77%	84%	88%	88%	95%	100%	100%
4	How often does CDMC process the Vendor details updation request within the same day?	53%	70%	77%	81%	81%	88%	95%	98%	100%	100%

5	How often the request for Vendor code extension is processed within the same day by CDMC?	56%	77%	84%	86%	86%	93%	98%	98%	100%	100%
6	The request raising procedure for Vendor code creation is user friendly.	53%	72%	86%	88%	93%	98%	98%	100%	100%	100%
7	What is your overall satisfaction level with your experience with CDMC?	60%	72%	79%	88%	95%	100%	100%	100%	100%	100%
8	How convenient is it to search for Vendor code in SAP?	72%	84%	93%	95%	100%	100%	100%	100%	100%	100%

Table -13: CDMC User's Concern (Vendor Code)

Rank	Questions	% of user dissatisfied	User saying	% of user
1	How often you don't have to follow-up on your request for Vendor details updation?	72%	Have to do follow up on vendor code creation and details updation	70%
2	How often you don't have to follow-up on your request for Vendor Code creation?	67%		
3	How often the request for Vendor code creation is processed within 2 working days by CDMC?	23%	Code creation request not processed timely	23%
4	How often does CDMC process the Vendor details updation request within the same day?	19%	Vendor details updation request not processed timely	19%
5	How often the request for Vendor code extension is processed within the same day by CDMC?	14%	Code extension request not processed timely	14%
6	The request raising procedure for Vendor code creation is user friendly.	12%	Request raising procedure is not user friendly	12%
7	What is your overall satisfaction level with your experience with CDMC?	12%	Dissatisfied with CDMC	12%
8	How convenient is it to search for Vendor code in SAP?	5%	Code search is inconvenient in SAP	5%

In survey result, by considering Score of ≥ 7 & below 65% of user satisfied, i.e. More than 35% of User dissatisfied, following "Concerns" (marked in red) were identified that needs to be addressed.

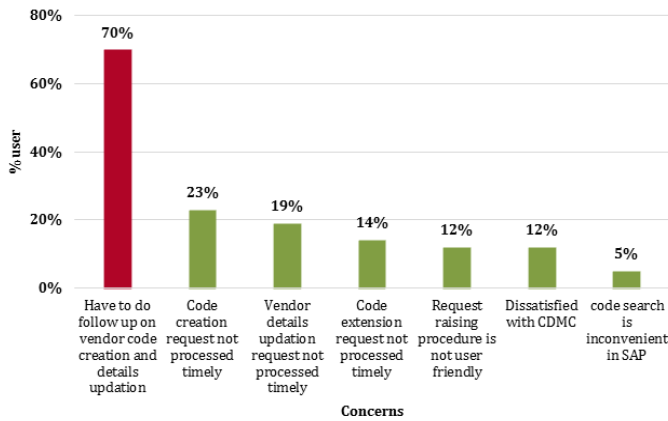


Chart -10: Bar Chart showing User's Concern

In addition, Specific problems faced by the User leading to their dissatisfaction with Vendor Code were also identified by one-on-one interactions & telephonic conversation with various Users.

4. CONCLUSION

4.1 Problem faced by users w.r.t. material & service code

Table -14: Code Creation Request not processed timely

Problems	Reason	Suggestions	Enabler / Action to be taken	
			User End	CDMC End
Delay in code creation	Many requests related to code creation for which Code already exists.	User should look for existing items code properly & raise request for only new item code creation	User facing problem in searching of item code in SAP needs to attend the SAP training sessions.	Will have to initiate training sessions related to SAP
	Additional activities like GST update increases the workload of CDMC team			

Table -15: Request raising procedure not user friendly

Problems	Reason	Suggestions	Enabler / Action to be taken	
			User End	CDMC End
CDMC asks for drawing of material, in spite of it being a non-mandatory field in the portal.	CDMC needs drawing for data enrichment & verification.	Although drawing is not mandatory field but if the drawing is available then user should attach it with the request.	Needs to attach drawing (if available) with every request.	If the drawing is not attached, CDMC should infer that the drawing is not available & therefore should not ask for drawing
No prior notice is given before rejecting the request	No practice of providing prior notice to the user	CDMC should notify the user before rejecting the request through phone or mail		Needs to notify the user before rejecting the request through phone or mail

Table -16: Code Extension Request not processed timely

Problems	Reason	Suggestions	Enabler / Action to be taken	
			User End	CDMC End
Delay in code extension	Additional activities like GST update increases the workload of CDMC team			

Table -17: MDRM Interface not user friendly

Problems	Reason	Suggestions	Enabler / Action to be taken	
			User End	CDMC End
Meaning of descriptors and nomenclature of the MDRM portal is not clear to the user	User is not able to understand the meaning of descriptors	Conduct training sessions related to SAP & MDRM Portal	Users facing problem in understanding descriptors & nomenclature should attend the SAP MM module training sessions	Will have to initiate training sessions related to SAP & MDRM Portal
		CDMC should share the MDRM training manual with the users		Needs to share the MDRM training manual with the users
Difficulty in filling up the mandatory fields in the portal for OEM material	Catalogue of OEM material is not available	For OEM material, only Manufacturer's name & part No. should be mandatory field		Needs to modify the portal suitably
Speed of server (of MDRM) is slow	Portal hangs up & problem in submitting the request	Upgrade the current 14.1 version of server to 14.9		The updation of server requires an investment of 28 Lakhs

Table -18: Miscellaneous Problems

Problems	Reason	Suggestions	Enabler / Action to be taken	
			User End	CDMC End
Delay in Unblocking of item code	Unblocking request is sent through mail which gets overlooked	CDMC personnel should check their mail intermittently & process unblocking requests immediately.		Needs to check mail intermittently.
Drawing of material is not available with the item code	CDMC doesn't attaches drawing during creation of item code	CDMC should find a way for User to access the drawing with the item code.		Needs to attach drawings with the item code or design a platform where User can access drawing of items.
No contact details of Material & Service Master in the mail	CDMC hasn't shared the contact details of Material & Service Master	CDMC should share their landline & mobile no. in their respective mail ID to all the users		Material & Service Master will have to share their landline & mobile no. in their respective mail ID to all the users
CDMC not responding to phone calls	Unnecessary follow up by user.	An auto generated mail should be sent to user stating that their request has been received and will be processed within 2 days	To follow up only after 48 hours of raise of request, except in case of urgency	Needs to contact with the IT Dept. for the development of suggested feature in the portal

	Time of call is off working hours	User should contact CDMC during office hours	To follow up during working hours except in case of urgency.	
	CDMC team is not present at their workstation	If CDMC doesn't answer their landline, user should contact CDMC team on their cell phones	To follow up only for urgent material	Needs to send a text message to concerned user, if unable to receive the call.
		CDMC should message to the concerned user, If busy & unable to take the call,		

Use of improper channel like mail or in person, for HSN / SAC rectification	User is unwilling to use the portal	Processing such request takes more time and eventually other works get hampered	CDMC should direct the users to raise request through portal only
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Table -21: Vendor Master

Problems	Reason	Effects	Suggestions
User provide incomplete / irrelevant documents for vendor registration	User is not aware of the complete list of credential documents required for vendor registration	Results in reverting back the request to the user, leading to delay in code creation	Create a SOP directing users to send the complete set of mandatory documents on the first time
Scanned credential documents are not readable	User doesn't scans the documents properly	Vendor Master is unable to read such documents & have to follow up with user	Direct the users to send properly scanned documents
User uses old format of "Vendor Registration Form" which is no longer valid	All Users are not updated with the latest Vendor Registration Form	Results in reverting back the request to the user resulting in delay in code creation	CDMC should regularly update all user about any changes in form, procedure etc.

4.2 Problem faced by users' w.r.t. vendor code

Table -19: Miscellaneous Problems

Problems	Reason	Suggestions	Enabler / Action to be taken	
			User End	CDMC End
No contact details of Vendor Master in the mail	CDMC hasn't shared the contact details of Vendor Master	Vendor Master should share their landline & mobile no. in their respective mail ID to all the users		Vendor Master will have to share their landline & mobile no. in their respective mail ID to all the users
User is not updated with the latest Vendor Registration Form	CDMC hasn't shared the latest Vendor Registration Form with all the User	CDMC should regularly update the users about any changes in form, procedure etc.		CDMC needs to share with the users the latest changes in the forms, procedures etc.

4.3 Problems faced by CDMC & Suggestions

Table -20: Material & Service Master

Problems	Reason	Effects	Suggestions
User does not fill the mandatory fields in the MDRM / SAP portal properly	Complete data of material is not available with the user The descriptors of the mandatory field is not clear to the user	Results in reverting back the request to the user, followed by repeated follow up and delay in code creation	User should be given required training on SAP / MDRM portal
Contacting user who raised the request, whenever any clarification is required.	User shares its MDRM login ID & password with other personnel in the dept. , for raising request.	CDMC can't contact the correct person that raised request, in case any clarification is needed, resulting in delay in code creation.	Portal should be suitably modified so that it can capture name & contact number of the person who can provide clarification.
Unnecessary follow up by the user	User is not aware of the lead time of code creation	Unnecessary disturbance slows down the process of code creation	User should be made aware by CDMC that the process of code creation takes 2 days.
	User doesn't receives any confirmation that the request has been received by CDMC.		An auto generated mail should be sent to User stating that the request has been received & will be processed within 2 days.

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BIOGRAPHIES



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