



ISSN 2278 – 0211 (Online)

Capacity Planning in Client Services and Relationship Management - Maturity Models

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Abstract:

The Financial Services industry is getting challenged incessantly from fierce competition, rapid change in technology and globalization. Additionally, clients have become more demanding from a service delivery perspective, while continuing to put pressure on cost. All of this is putting significant pressure on margins and the cost of operations. Operational scale and efficiency are of paramount importance today, leading to a focus on building a lean and optimized workforce. To achieve this objective, organizations are increasing focus on Capacity Planning. The traditional methods of demand and capacity planning using volume and time standards work well for contact centers, transaction processing and projects in operations. However, when it comes to the relationships, traditional methods fail as volume and effort here are functions of complexity, subjectivity and quality of relationships.

So, the question arises how do we determine optimal staffing for a relationship management team? This paper proposes methodologies that can help relationship management teams in estimating demand and perform capacity planning, by leveraging analytics. It lays out a capacity maturity model framework for client services and relationship team. It provides guidance to assess current level and direction to attain next level.

Keywords: Capacity planning, client service, relationship management, maturity model

1. Executive Summary

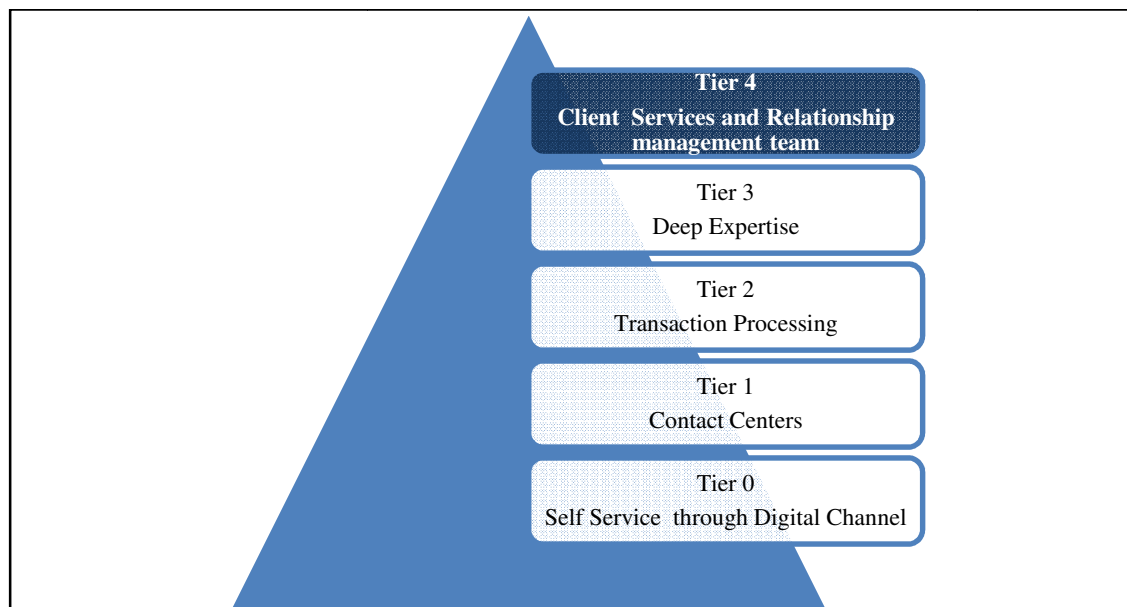


Figure 1: Operations Delivery Model and Client Services and Relationship Management

2. Capacity Planning for Client Relationship Management Teams

All organizations have a large number of client relationships of varying scope and complexity. Client relationship managers, who are one of the most expensive resources, manage and protect the relationships between an organization and its clients. They are key members of a client services and relationships management team. They also take other job titles, including key accounts manager, business relationship manager and client services manager. In this paper we will address them as Relationship Managers (RMs).

This paper attempts to answer the following:

- 1) What are the Maturity Models for demand management practices in a relationship team?
- 2) How do we do capacity planning for a relationship management team?
- 3) How analytics can be leveraged at various maturity levels?

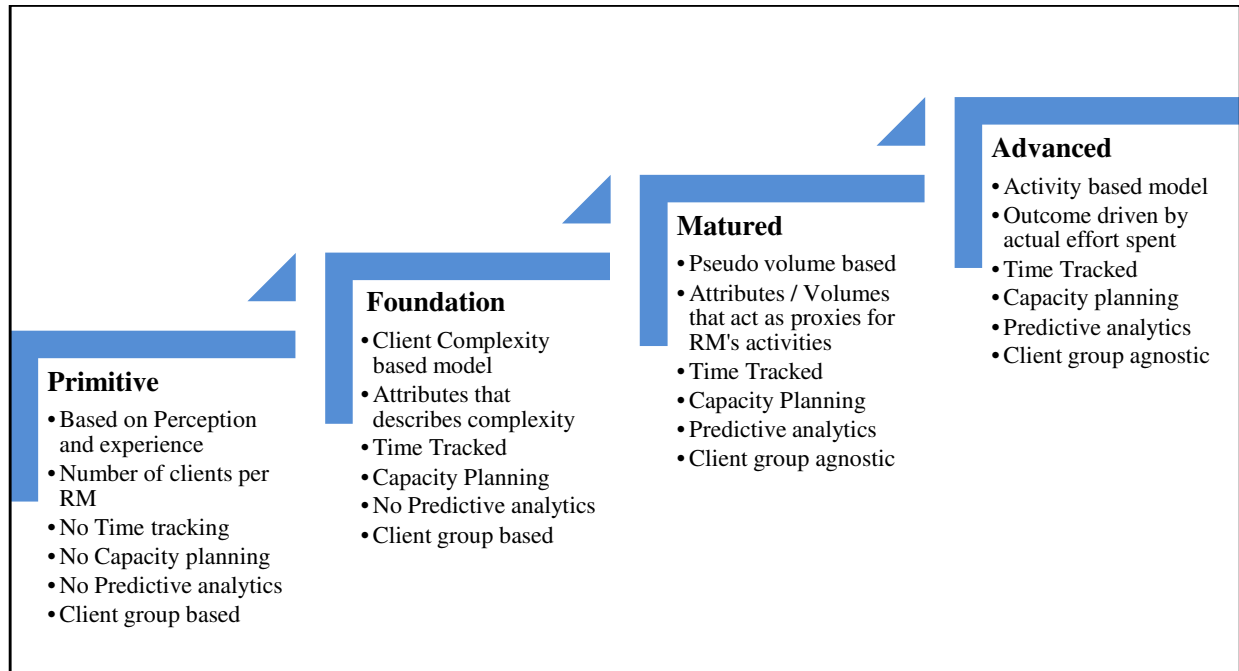


Figure 2: Maturity Levels and Methodologies for Capacity Planning in Relationships World

Above figure explains the various maturity phases and methodologies used under each phase to estimate client demand.

3. Maturity Level One

3.1. Methodology: Experience Based

It is based on previous experience or 'gut feeling'. RM's are allocated based on viewpoint and apprehension. (i.e., RM 1 seems capable of managing the client relationship with client X). It does not scientifically consider the effort made by RMs to nurture client relationships; nor does it consider other factors such as client's health, economical condition, business condition etc., all of which have an impact. This method can be adopted at any point of time.

3.2. Methodology: Client Metrics

Client assignment based on 'Client Span' (Client to RM ratio). This ratio varies across clients depending on service level required. It also requires benchmarking based on segments. For implementing this, the information below is required:

1. Client details
2. RM's details
3. Assignment details
4. Mechanism to maintain and track above information

For clients group 'X', one RM can handle 5 clients, but for clients group 'Y', one RM can handle up to 20 clients.

Client Span calculation					
Client Group	Total number of RM	Total number of Clients	Actual Client Span	Target	+/- Target
X	10	50	5.00	6.00	-1.00
Y	30	600	20.00	18.00	2.00
Z	40	600	15.00	15.00	0.00

Table 1: Maturity Levels and Methodologies for Capacity Planning in Relationships World

However, the challenge is not all clients are same. Client complexity varies, driving different levels of effort to service. Targets may have to be revised every year. This approach does not require time tracking and capacity planning. Hence, this type of client assignment results in disproportional utilization of RMs.

4. Maturity Level Two

4.1. Methodology: Client Complexity

Client complexity model is based on 'Analytical Hierarchy Process (AHP)' to differentiate clients based on the specific needs and complexity. It determines a relationship complexity score associated with the client based upon the product attributes, client characteristics and operational complexity. This requires historical data of the effort RMs are spending against the complexity categories.

Steps involved here are as follows:

1. Complexity characteristics like Product / Services Characteristics, Operational Complexity, Client Personality, etc. are determined. Weightages for each characteristic are determined with business and finalized.
2. Specific attributes which represent each characteristics are determined considering data availability (For example: Plan Design for Product / Service Characteristics, Asset Size for Client Personality and Meeting Frequency for Operational Complexity). Sub-weightages for them are then determined.
3. Weighted product of these attributes is calculated to determine a complexity score. This is equated with the past effort to come up with a unit, which helps in determining the client demand.
 - a. Client complexity score for client A:
 - i. $CCS_a = \sum_{i=1}^n a_i x_i + b_i y_i + c_i z_i$; x_i, y_i, z_i are complexity characteristics of clients; a_i, b_i, c_i are weightages of client characteristics; n = number of variables;
 - b. Total Score $CCS = \sum_{a=1}^l CCS_a$; where l is total number of clients; Total Effort (TE) = $\sum_{n=1}^m E_n$. Where m is number of RM's. E_1 is the effort in hours for RM_1
 - c. $CCS = TE$; This equation helps in converting score to hours and also in determining the effort required per point
 - d. Target is set for all RM's which is equivalent to average score of RM's. Based on this, RM's capacity is determined for further assignments and re-assignments.
 - i. Target score (Target score) = CCS / m , Where Number of RM's = m and Total Score = CCS
4. This process is repeated for different client groups (which are determined, based on group differentiators; example: asset size) to come up with a total score and a target score. The total score provides the unit of measurement for measuring demand, and the target score helps in assigning clients, so that total sum of client complexity scores for RMs is equal to target score.

For a client group, RM_1 has a current complexity score of 900, while RM_2 has a current complexity score of 500. The model compares the current score of each RM with the target to determine the RM's capacity. If the target score is 700, then RM_2 has a capacity of 200 points (700 - 500). The model can recommend one or more clients from same client group to RM_2 , which has complexity score of 200 or lower.

Calculation of Client Complexity score		
RM Name	Client Name	Score
1	A	400
1	B	300
1	C	200

Book of Business for Client group using complexity score				
Client Group	RM Name	MAR16 - Score	Target Score	+/- Target
X	1	900	700	200
X	2	155	700	(545)
X	3	148	700	(552)
X	4	700	700	0
X	5	750	700	50

Table 2: Estimating Client Score and RM Capacity using Client complexity Score

This model provides limited insights into cyclical demand changes and inter-group comparisons of clients. Forecasting is insensitive to the seasonal demand as attributes are static. Time tracking and capacity planning are performed here.

5. Maturity Level Three

5.1. Methodology: Pseudo Attribute

This model compares client demand across different client groups(based on client group differentiator attributes like asset size).It identifies differences in client needs vs. actual effort spent, driving potential over and under-servicing of clients.

The steps involved here are as follows:

1. All the demands across client groups are brought to the same scale by dividing client complexity score over the target for each client group.
 - a. Compute the demand for client in terms of FTE (Full time employee). This needs to be completed across client groups. For example, a client with complexity score of 350and belonging to a client group will be equivalent to $(350/700) = 0.5$ FTE where the target score for client group is 700.

FTE calculation for client groups				
Client Group	RM	MAR16 - Score	Target	FTE
X	1	350	700	0.50
X	1	155	700	0.22
Y	2	700	1000	0.70
Y	2	900	1000	0.90
Z	3	1000	1500	0.67
Z	3	1100	1500	0.73

Table 3: Estimating FTE demand across client groups

2. All the attributes across client groups are compared to determine the most significant attributes affecting the demand using Multivariate Linear Regression. Equation:
 - a. $CD_a = \beta + \sum_{i=1}^n p_i x_i + q_i y_i + r_i z_i$; β is intercept; x_i, y_i, z_i are the significant attributes coming out from Multivariate linear regression; p_i, q_i and r_i are the co-efficient of attributes x_i, y_i and z_i respectively; CD_a is demand for client A.
 - b. Total client demand (CD) = $\sum_{a=1}^l CD_a$; where l is the total number of clients across client groups.
3. Significant attributes are forecast and substituted in demand equation to determine future demand using various forecasting techniques such as ARIMA, Regression, Time series and so-on.

Pseudo Attribute Model- Book of Business using Multivariate Linear Regression													
Client Group	RM	Intercept	Attribute A	Co-efficient A	Attribute B	Co-efficient B	Attribute C	Co-efficient C	Attribute D	Co-efficient D	MAR16 - Score	Target	+/- Target
X	1	30	10	0.85	3	0.15	20	0.1	8	0.55	45	100	(55)
X	1	30	15	0.85	5	0.15	25	0.1	10	0.55	52	100	(49)
Y	2	30	90	0.85	7	0.15	50	0.1	15	0.55	121	100	21
Y	2	30	25	0.85	9	0.15	43	0.1	20	0.55	68	100	(32)
Z	3	30	70	0.85	11	0.15	30	0.1	25	0.55	108	100	8
Z	3	30	35	0.85	5	0.15	46	0.1	30	0.55	82	100	(18)

* 100 points equal to 1 FTE

Table 4: Estimating RM Capacity for All Market Segments using Pseudo Attribute Based Model

The attributes considered to gauge client demand in this model are aligned to client activity but are not the activities of RM's. So what are activities of RM's? How much time RM's spend on various activities like regular meeting, escalation management, client reporting, issue research, etc.? What should be the time required or standard for these activities?

6. Maturity Level Four

6.1. Methodology: RM's Attribute Based Model

This model leverages the activities RM's perform and the effort to complete. Infrastructure should be in place to capture volumes and the time spent for these activities. Key steps are as follows:

- Identify the repeatable and measurable activities RM's perform. For example:
 - Escalation Management (A_i); Desk Administration (B_i); Client Meetings (C_i); Issue Research (D_i); sales opportunities (E_i)
 - Estimate the expected (standard) time required for these activities by leveraging historic data.
 For example, if, on average, an RM spends 100 hours each month across 5 different issues, then the time standard for Issues Management is (100/5) = 20 hours per issue. Similarly, estimate time standard for other activities.
 $T_a = (\sum_{i=1}^S T_i) / S$; where T_a = Time standard for activity A; S is the total number of activity A's faced by all the RM's; T_i is the time taken for the ith activity A. similarly, calculate, T_b, T_c, T_d and T_e.
- Calculate the effort required per client. For example:
 - RM handling client 'A' faces on an average 2 issues, 5 meetings, 4 research projects and 1 sales item per month. The derived time standards for each of these activities are respectively 20 hours, 2 hours, 5 hours and 10 hours. So the total time RM is spending on client A per month is (2*20+5*2+4*5+1*10) = 80 hours.
 $A_i = A / l$; where A = Total number of issues; l = total number of clients; similarly, calculate B_i, C_i, D_i and E_i;
 $CD_a = \sum_{i=1}^l A_i T_a + B_i T_b + C_i T_c + D_i T_d + E_i T_e$, CD_a is demand for client 'A'. A_i, B_i, C_i, D_i and E_i are the activities and T_a, T_b, T_c, T_d and T_e are the time standards respectively;
 Total client demand (CD) = $\sum_{a=1}^l CD_a$ where l is the total number of clients across market segments.
- Non-processing demand (Training, breaks and vacation) is added to derive total demand. For example:
 - if an RM is spending 140 hours per month in handling three clients (80, 40 and 20 hours for client A, B and C). He/she also spends 30 hours/month on non-processing activities adding up to 170 hours per month. Suppose, RM's capacity is 176 hours per month, then RM is almost fully utilized and can't be assigned a new client.
- Forecast the future activity of RM's based on past data leveraging various forecasting techniques such as ARIMA etc.
- Time standards, and target number of activities can be derived using advanced analytics.

Activity Based Model- Book of Business using Activities and Time Standards													
Client Group	RM	Activity A	Time Standards A (Hrs)	Activity B	Time Standards B (Hrs)	Activity C	Time Standards C (Hrs)	Activity D	Time Standards D (Hrs)	Non Processing Time (Hrs)	Total Effort (Hrs)	Target Hrs	Utilization
X	1	10	2	5	5	3	10	5	8	40	155	176	88%
X	1	15	2	10	5	5	10	3	8	40	194	176	110%
Y	2	10	2	15	5	2	10	4	8	40	187	176	106%
Y	2	20	2	4	5	1	10	10	8	40	190	176	108%
Z	3	25	2	9	5	5	10	2	8	40	201	176	114%
Z	3	5	2	7	5	2	10	8	8	40	169	176	96%

Table 5: Estimating RM Capacity for All Market Segments using RM Activity Based Model

7. Conclusion

These methodologies can act as a tool in determining the demand in a scientific way and eliminating subjectivity to greater extent. The success of these models depends on the choice of attributes. However, final demand should be estimated considering the model output and organization strategy in order for it to be more effective.

7.1. Disclaimer

The views or opinions expressed in this paper are solely those of the author and do not necessarily represent those of Fidelity Investments. This research does not reflect in any way procedures, processes or policies of operations within Fidelity.

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