Towards a Model for Measuring Customer Intimacy in B2B Services

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Abstract. This paper proposes an approach for evaluating the relationship with a customer, leading to the creation of a Customer Intimacy Grade (CIG), across multiple levels of granularity: employee, team, business unit and whole organization. Our approach focuses on B2B service organizations which provide their customers with complex solutions and whose relationship with the customer is distributed among multiple employees and across different business units. The suggested approach should improve the systematic analysis of customer intimacy in organizations, leverage the customer knowledge scattered throughout the organization and enable benchmarking and focused investments in customer relationships.

Keywords: Customer Intimacy, Social Network, Organization, B2B Services, Service Relationships, Customer Relationship Management

1 Introduction

In a demand driven and service-centric market, where companies face ever increasing competition, leveraging business relationships to achieve a competitive advantage is a key business strategy [1]. The modern perspective on services defines a service as the application of knowledge and expertise for the benefit of another entity [2]. This view does not separate the creation of value by a provider from its destruction by the consumer [3], but rather emphasizes the notion of co-creation of value between supplier and customer. In order for a company to remain competitive, the company must involve the customer in the value creation process [3] .

Building on a similar idea, Treacy and Wiersema have developed a concept called *customer intimacy* [4], and they argue that it is one of three value disciplines, together with product leadership and operational excellence, that leads to market leadership. They define customer intimacy as "segmenting and tailoring offerings to precisely match the need of customers". Deep customer knowledge and detailed insights about the client´s underlying processes form the backbone of every customer intimacy organization. In addition, customer intimacy is characterized by the ability to respond quickly to almost any customer need, from customizing a product to fulfilling a special request. It therefore requires the appropriate degree of operational flexibility [5]. Customer intimacy is a complex construct, and even though several metrics have

been conceived in the field of Customer Relationship Management [6], most companies struggle to quantify and proactively manage the degree of intimacy that they have established with their customers.

Currently there are only a few models available for measuring customer intimacy which, however, do not lend themselves to easy operationalization [7][1][8]. Even though some models do consider the service dimension [9][10], they particularly do not consider the co-creation view on services [3].

Our contribution of our research-in-progress paper is threefold. First, we provide a novel approach for measuring the degree of intimacy established with a customer, leading to a performance indicator which we will call the Customer Intimacy Grade (CIG). The CIG yields several benefits, such as giving access to an overview of the relationships with customers, and enabling benchmarking intimacy grades in order to systematically improve customer relationship processes. The originality of our model is that it focuses on the particular challenges of (larger) B2B service organizations which are *(i)* the delivery of complex solutions that include multiple products and services, and *(ii)* the knowledge exchange between multiple business units within an organization. Second, we provide an illustrative case study which demonstrates the applicability and the added-value of the CIG measurement. With respect to the realization of our approach by means of an information system, we thirdly sketch a possible implementation of our CIG model.

The remainder of this article is organized as follows. In Section 2, we provide an overview of related work. Section 3 elaborates on the model that we propose for evaluating the Customer Intimacy Grade and discusses its implementation. We summarize our findings in Section 4 and outline future activities in this field of research.

2 Related Work

The original definition of customer intimacy presented above – to taylor and shape products and services to fit an increasingly fine definition of the customer [4]– considers the creation of customer intimacy between two organizations at the enterprise level. A major part of the existing literature is based on this definition, but we have also found some models emphasizing the employee´s perspective. This section covers previous approaches illustrating both the individual and organizational perspectives, and establishes the link to the concept of Customer Relationship Management.

Cuganesan examines the use of accounting numbers to calculate customer intimacy [11]. He suggests two modes of calculation: a sales calculation approach and a numeric calculation approach. These approaches are essentially focused on market intelligence data and customer penetration and they are illustrated with a case study describing the complexity of evaluating customer intimacy for an organization in the financial services industry.

In a balance scorecard evaluation, Niven proposes five attributes which can be developed in order to measure customer intimacy [12]. These are customer knowledge, solutions offered, penetration, culture of driving client success, and

relationships for the long term. The operationalization or detailed implementation of these attributes however remains open.

Kaplan suggests that for a differentiated customer intimacy strategy to succeed, the value created by the differentiation—measured by higher margins and higher sales volumes—has to exceed the cost of creating and delivering customized features and services [7]. Based on their time driven activity based costing, Kaplan and Anderson suggest a model to evaluate customer profitability [13]; the model, however, is not specific to companies pursuing a customer intimacy strategy.

An executive brief [9] suggests that services provide the opportunity for industrial companies to significantly deepen the level of customer intimacy and increase customer control, but it does not explain how to evaluate this level of customer intimacy, and, thus, how to measure the improvement through the added services.

Potgieter and Roodt provide a model in which they consider customer intimacy from the internal perspective and they conceive a questionnaire for the assessment of the customer intimacy culture of an organization [8]. This questionnaire was validated by an empirical study in a company from the entertainment industry. Their approach does not consider the actual intimacy achieved with individual customers, but the ability of an organization, and more specifically its cultural aspects, to support a customer intimacy strategy.

Tuominen and Rajala provide a six-layer approach for evaluating customer intimacy[1]: they differentiate whether the organization (1) was involved in the customer's planning process, (2) involved customers in their planning process, (3) partnered and jointly planned with customers, (4) aligned each other's operating processes, (5) designed operational interfaces, and (6) formalized the system of joint decision making. They use this scale to correlate the degree of customer intimacy with the internal market intelligence capability of the organization, so called market orientation. They recognize the importance of partnership and collaboration in the development of a customer intimacy strategy. However, only a few details are provided on how to actually measure these layers that merely focus on the organizational level.

Abraham emphasizes the importance of the relationships between employees. He defines customer intimacy as the formal or informal set of relationships established between supplier and customer, with a diverse array of partners, from corporate leadership to functional leadership (engineering, marketing, operations, maintenance, or service) and end-users of products or services [14]. These dynamic relationships provide multiple points and frequency of contacts between the company and its customer, as well as multiple points of view about the relationship and its benefits to both parties. According to his work, increasing customer intimacy can be achieved by improving the attitude of the employees dealing with the customer.

Yim and al. propose a model in which they consider both the "customer-staff" and "customer-firm" interactions in parallel. They define intimacy as the bondedness and connectedness of a relationship between two individuals and investigate how intimacy and passion can enrich customer service interactions and impact the "customer-firm" relationship [10].

The vast Customer Relationship Management (CRM) literature aims at improving the overall quality of the relationship with the customer as it should provide a seamless integration of every area of business that touches the customer, but several

studies reveal the challenges of delivering business benefits out of CRM implementations [15]. Ballou states that "the old customer relationship management agenda as a bandage should now be replaced with the new agenda of customer intimacy, that is, to make customers feel good whenever they make contact with your company." (cited by [10]). CRM systems provide many key performance indicators such as customer satisfaction, customer value, or sales performance, but these are focused on the outcomes and do not do not provide the ability to evaluate the degree of intimacy.

3 A Model for Measuring Customer Intimacy

Many different aspects should be considered when developing a model to measure the degree of intimacy between a company and its customers. Liljander and Strandvik identified within their service relationship quality model that some of these aspects are at the organization level, while others are at the individual level [16]. Based on this premise, and in order to achieve the benefits outlined in Section 3, our model intends to include a calculation of the customer intimacy grade (CIG) for both the organizational and individual levels. The organization levels can be a team, a business unit or the entire enterprise (ref. Fig. 3)

However, as presented in Section 2, customer intimacy is not only about having a high quality relationship with a customer: it is also about how an organization and its members are able to leverage the knowledge acquired through this relationship in order to shape the offering and to achieve a competitive advantage. Therefore, we have represented customer intimacy on the following two-dimensional diagram (ref. Fig. 1). The x-Axis represents the quality of the relationship with the customer and the mutual willingness to create a partnership, while the y-Axis represents the ability to leverage this relationship and to adapt the offering in order to better fulfill the individual needs of the customer, and thus to create a competitive advantage. Customer intimacy exists when both the relationship with the customer (x-Axis) and the ability to adapt to the customer (y-Axis) are high.
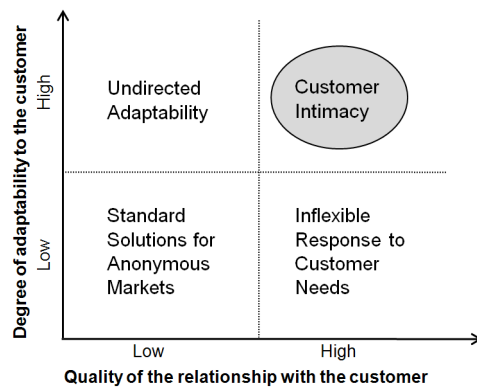

Figure 1: The two dimensions of customer intimacy

There are multiple elements of evidence which prove that a service provider has reached a certain level of customer intimacy with specific customers, such as the evolution of the relationship into a longer term partnership, the access to customer information systems, a high frequency of interaction, the successful completion of joint activities, or the mutual involvement of top level management. Each of these indicators represents some valuable input for the CIG calculation. Our methodology targets to identify these *relevant elements of evidence* as well as to aggregate them into quantitative CIGs.

The diagram depicted in Figure 2 illustrates the CIG calculation model. It consists of three main layers. The first layer is the *CIG decomposition* into individual concepts as described in the literature. This enables us later on to compose CIGs out of measurable and quantifiable parameters. The second layer, which we call the *network layer*, is a graph-based representation of the components that constitute customer intimacy at the organizational and individual levels. Finally, the third layer, i.e. the *customer information container*, holds the underlying hard data - the "evidence of intimacy".

In the remainder of this section, we will detail the first layer and describe the CIG decomposition. Furthermore, we propose a concept to measure the individual components and aggregate them towards a higher level CIG. We provide a simple example to illustrate the application of the idea. Finally, we outline the intended implementation of the approach proposed.
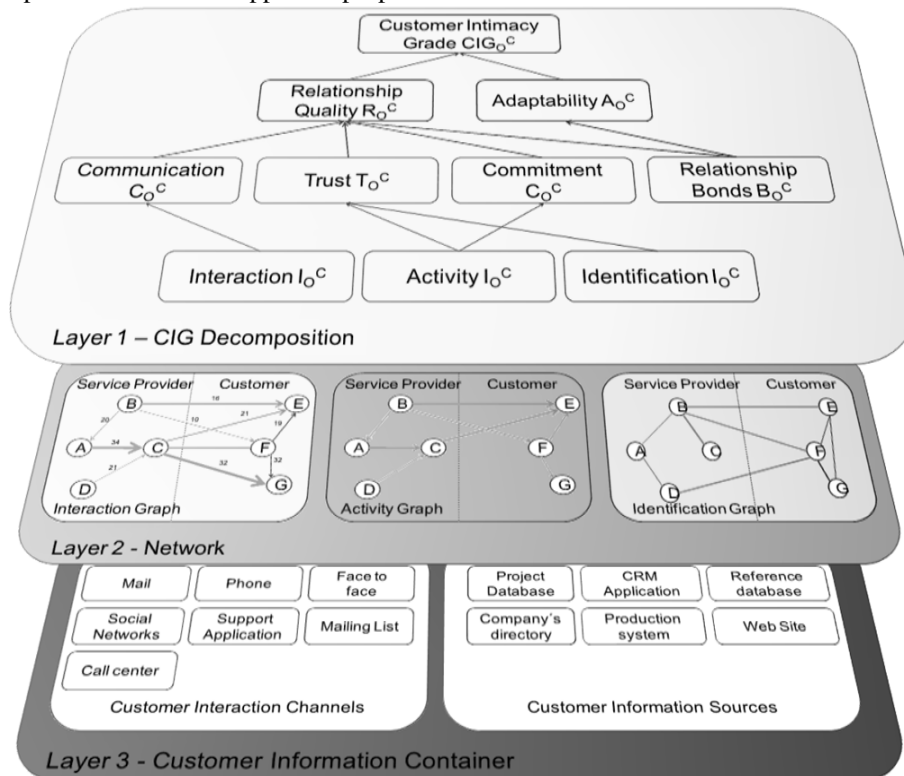

Figure 2: Overall Customer Intimacy Grade (CIG) Calculation Model

3.1 The CIG decomposition

As explained in the introduction of this chapter, CIG depends both on the *relationship quality* and on the *degree of adaptability*. In the following, the underlying concepts (depicted in Figure 2) are identified from the literature and put into context. The notation in Figure 2 is following: each CIG component is specified with two indices. The lower index represents the entity in the service provider organization and the upper index represents the entity in the customer organization. For instance, CIG_O^C represents the Customer Intimacy Grade between the organization O inside the service provider and the customer C.

Let us first focus on *relationship quality*. Many studies which evaluate the constituents of a relationship in a commercial setting are already available [17][18]. We base our evaluation on the recent work from Richard [15] because it focuses on B2B service relationships. In its evaluation of the impact of Customer Relationship Management on B2B relationships, Richard identifies a mean to evaluate the relationship quality along three main criteria: *communication*, *commitment* and *trust*. [15]

Based on his literature review, Richard finds that *communication* is used to initiate and build relationships: mediate ideas, thoughts and feelings, transfer information, solve problems and simply connect people [15]. Mohr and Sohi suggest that communication quality is a function of completeness, credibility, accuracy, timeliness and adequacy of communication flows [19]. Therefore, the first assumption of our model is that the *interactions* between the employees of the provider and the customer contain elements of evidence of the *communication quality*.

Trust has been conceptualized in the literature as having "confidence in an exchange partner's reliability and integrity" [20]. As this is a complex construct, Sako developed it along three dimensions: contractual trust, goodwill trust and competence trust [21]. Goodwill trust should be interpreted as a mutual commitment and support to each other, including confidence that the partners will not try to take an unfair advantage against each other. Competence trust has been defined as the belief that the partner has the ability, technical knowledge, expertise and capability to perform his role [21]. Our second assumption is that goodwill trust and competence trust increase when the service provider and the customer already have a common history and have worked jointly on successful activities. Therefore *activities* are elements of evidence for the degree of *trust*. In addition, *identification*, which is a process of self-categorization with respect to others, impacts the perceived proximity [22] and influences trust because of the feeling of belonging to the same group [23]. Thus, our third assumption is that *identification* is also an element of evidence of *trust*.

Commitment was defined by Andersan and Weitz as a desire to develop a stable relationship, a willingness to make short-term sacrifices to maintain the relationship, and a confidence in the stability of the relationship [24]. This is translated at the individual level into a readiness to help the customer when he has some issues, in showing some flexibility when this is needed by the customer, and a quest for the best long-term solution from the customer´s perspective and not from the provider´s perspective on the short term. Along with other criteria that will be defined in the future, the activities between the customer and the provider are also elements of evidence for commitment.

The second constituent of the Customer Intimacy Grade, according to the definition of customer intimacy from [4] is the demonstration that service providers and its employees actually adapted and tailored their solutions to fit exactly the need of the customer, summarized as *adaptability* in our CIG calculation model. *Adaptability* is one of four cultural traits of effective organizations according to Denison: "Adaptable organizations are driven by their customers, take risks and learn from their mistakes (…) they are improving the organizations' collective abilities to provide value for their customers [25]." This definition confirms that several elements of evidence of adaptability to a customer can be found, at both the organizational and individual levels. Liljander and Strandvik, in their Service Relationship Quality Model, identified ten types of bonds that enable a characterization of the relationship between a service provider and its customer [16]. In our approach we consider the elements of evidence of adaptability which are mainly contained in the following bonds: legal, economic, technological, geographical, knowledge-related, social types.

3.2 Network and Customer Information Container Layers

As mentioned previously, our intent is to calculate Customer Intimacy Grades at both the organization and the individual levels. The model provides a customizable aggregation of the individual CIG in order to obtain the CIG of a team, a business units and the whole organization. Figure 3 highlights the possible CIG calculations.
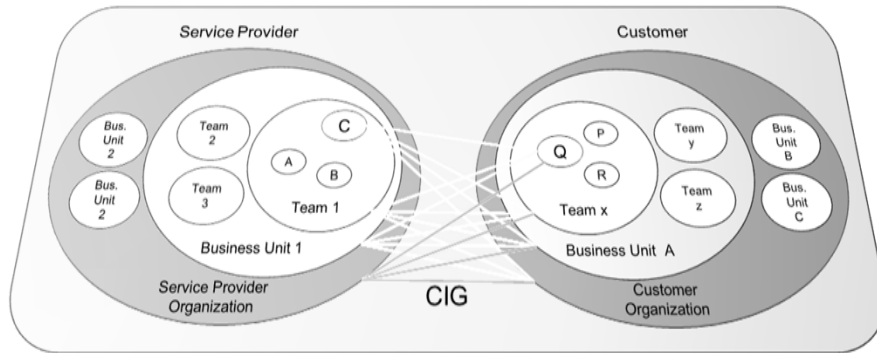

Figure 3 – Different CIG Calculation options.

The CIG calculation in our model is based on the three functions interaction, activity and identity. In order to model the various CIG aggregation possibilities, we apply concepts from graph theory. We have defined three graphs Interactions G_{In}, Activities G_A and Identification G_{Id}. In the three graphs, the nodes represent the n employees and formally belong to the set $V= \{v_{1,...,}v_{n}\} \in V$. V can be divided in two subsets V_C and V_P, depending whether the employee belongs to the customer´s C or to the provider´s P organization. In order to support the multiple aggregation levels represented by the teams and business units, additional subsets can be defined inside the provider and customer groups ($V_{Cx} \subset V_C$; $V_{Px} \subset V_P$)

7

The existence of an edge $e_{i,j}$ between two nodes v_i and v_j indicates that two employees already interacted with each other, completed some "adding value" activities together, or identified some perceived similarities. The set of edges E^G includes all the edges within a graph G. Our focus is in on the subset E^G_{CP} which contains the edges that have one node in the provider group, and the other in the customer group $E^G_{CP} = \{ e_{x,y} \mid x \in V_C ; y \in V_P \}$. The weight of an edge $w_{i,j}$ represents the amount of interactions, the amount of shared activities and the degree of identification between two employees v_i and v_j. In order to calculate these different weights, we use the elements of evidence which are available within the third layer "Customer Information Container" (ref. Fig. 3). Each piece of information added to these containers potentially contains some evidence that the intimacy has been modified, like a new contract or a new project, and lead to a modification of the CIG value. The aggregation mechanisms for the different factors represent one of our main fields of study.

We have described how to create the three graphs and how to weight the edges. In order to calculate the CIG out of these graphs we use the concept of centrality [26]. The centrality of a node may be determined by reference to any of three different structural attributes of that node: its degree, its closeness or its betweenness. The degree centrality $C_D(i)$ of a node i is defined as the number of its in- and outbound edges divided by the total number of potential nodes adjacent to i. This is an index of its potential *communication* activity. The closeness centrality $C_C(i)$ of a node i is defined as the inverse of the sum of the weights of the edges incident upon this node: $C_C(i)^{-1} = \sum_{j=1}^{n} w_{i,j}$. This is an index of efficiency. The betweenness centrality $C_B(i)$ of a node i depends on the the number of node pairs j and k for whom i is situated on the shortest path (also called "geodesic") [27]:

$$C_{B(i)} = \frac{2}{(n-1)(n-2)} \sum_{j<k \ (j \neq i \ k \neq i)} \frac{\tau^i_{jk}(g)}{\tau_{jk}(g)}$$ where $\tau_{jk}(g)$ is the number of geodesics between j and k, and $\tau^i_{jk}(g)$ indicates the number of shortest paths between j and k that go through i; the fraction $\frac{\tau^i_{jk}(g)}{\tau_{jk}(g)}$ is replaced by zero, when $\tau_{jk}(g) = 0$. These metrics are defined at the node level, thus providing us with the ability to measure the CIG at the individual level. One advantage of the centrality concept is that it also provides a formalization of aggregation of these three metrics along multiple nodes. We intend to use the aggregation formulas described in [27] in order to calculate the CIG for a team, a business unit or the entire organization. The table 1 summarizes the three graphs and our interpretation of the three types of centrality in the context of CIG calculation.

Table 1 – CIG Graphs Properties

Graph	Interaction Graph G_{In}	Activity Graph G_A	Identity Graph G_{Id}
Objective	Representation of the established contacts	Representation of the past "adding value" activities (e.g. completing a project, solving a problem, selling a new solution or renewing a contract)	Representation of the perceived similarities
CIG Impact	Communication	Trust and Commitment	Trust
Weight w	aggregation based on all interactions between two employees, their frequency and quality	aggregation based on activity duration, impact for the customer and type of activity	Aggregation based perceived similarity factors (e.g. social, geographical, cultural)
Degree Centrality $C_D(v)$	Number of contacts in the customer (resp. provider) organization	Number of qualitative relationships	Not applicable
Closeness Centrality $C_C(v)$	Ease of the communication	Intensity of the relationship	-
Betweenness Centrality $C_B(v)$	Importance and implicit power of this employee for the overall communication	Degree of involvement in the overall activities with the customer	Ongoing research

3.3   Illustrative Case Study

The following example is inspired by a real scenario in a large B2B IT Services provider. Its purpose is to illustrate our overall concept only, not yet, though, to provide a "validated" CIG value. Let us consider a service provider P and a customer company C. We will now illustrate the benefits of our model along a sequence of events that involve employees from both companies. These events and their impact on the CIG are described in the following table. The actual CIG calculation will be described in detail for the event 1 only, due to space reasons.

Table 2 – Case Study Sequence of Events

Event	Event description	Impact on CIG
0	There are no contacts between P and C and there were never any joint activities between employees from P and C.	The CIG is nil
1	P recruits the employee P_1 in the business unit BU_1. P_1 worked as a consultant for the customer C last year for three months and he knows two people C_1	The entry of this information in the database results in an

	and C_2 there - and worked specifically with C_1.	increase of $CIG_{P_1}^C$, $CIG_{BU_1}^C$ and CIG_P^C
2	The employee P_2 in the business unit BU_2 tries to get in contact with C, but so far his "cold calls" were not successful. He is notified that the CIG of P with C has increased and sees that P_1 has a positive CIG with C. He contacts P_2 and asks him to provide him with some information on C. During the discussion P_2 learns that that C might be interested in a solution provided by the business unit 2 and he gets some information on C´s purchasing behavior	No impact on CIG
3	With the help of P_1, P_2 organizes a meeting with three employees from C: C_1 C_2 and C_3. There are still no "adding value" activities between C and P but the degree of interaction between C and P has increased.	This meetings leads to the creation of a small CIG between P_2 and C_1, C_2, and C_3 and thus between BU_2 and C. Also P_2 has increased his CIG as he met C_1 and C_2 again.
4	This meeting has led to a preparation of service contract between BU_2 and C. During the design phase of the service employees from P and C get to know each other and C shares some knowledge about their challenges to P.	The interactions and joint activities between employee from P and C leads to a significant increase of the different CIG
5	The resulting service offering includes n modifications to the standard offering in order to fulfill C´s requirement	The integration of the customer challenges in the design phase leads to an increase of the adaptability and thus of $CIG_{BU_1}^C$ and CIG_P^C
6	The director of BU_2 has launched a new initiative for improving the communication with the customers. He would like to evaluate this impact of this change on the various customers.	The director can use the CIG and more specifically the communication part in order to evaluate the impact
7	The CEO wants to know in which accounts he should invest more and to know how to reorganize his team in regard to the strategic accounts	He can use the CIG to evaluate the relationship of his employees with the different customers

Event 1 Calculation.
The aggregation formula still needs to be refined and investigated. For the purpose of illustrating this example, we take the following assumptions:
- one Project Month has a value of 20 on the activity graph.
- a phone call and an email have a value of 1 on the interaction graph.
- a face to face meeting has a value of 3 on the interaction graph.
- a perceived similarity has a value of 5 on the identity graph.
- an adaptation of the offering has a value of 10 for the adaptability

As presented in table 2, before event #3 occurs, only P_2 was in contact with C. He had a three month project, resulting to an activity value of 60 ($w_{P_1C}^A = 60$), a very significant amount of phone calls, mails and meetings with C_1 and C_2: $w_{P_1C_1}^{In} = 60$

and $w^{In}_{P_1C_2} = 70$. He perceived six similarities with C_1 and 3 with C_2: $w^{Id}_{P_1C_1} = 30$, $w^{Id}_{P_1C_1} = 15$. This results in the following graphs (ref Fig. 4).
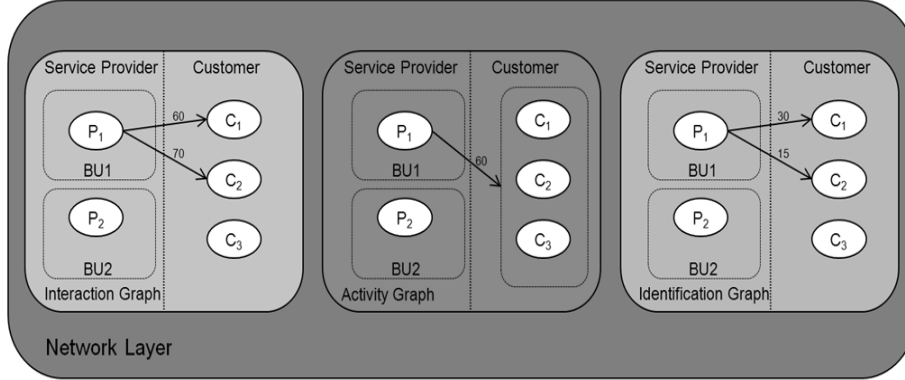

Figure 4: Network Layer for event 1

In order to calculate the betweenness centrality we assume that there are 10 employees in both the service provider and the customer organization.

Table 2: Centrality measures for P_1 for event 1

Graph	Interaction Graph G_{In}	Activity Graph G_A	Identity Graph G_{Id}
Degree Centrality $C_D(P_1)$	0,105	0,052	0,105
Closeness Centrality $C_C(P_1)$	$7,6 * 10^{-3}$	$16,6 * 10^{-3}$	$22,2 * 10^{-3}$
Betweenness Centrality $C_B(P_1)$	1	1	1

This next step is to aggregate this centrality indicators into a meaningful Customer Intimacy Grade. Since our research on the potential aggregation mechanism is not completed, we cannot yet provide the CIG indicator. Afterwards, we would also calculate the centrality metrics for the business units BU_1, BU_2 and for the provider P in order to obtain the CIG grade at these different levels.

3.4   Realization

As outlined in Section 1, the ultimate objective of the model depicted in Figure 2 is to quantify CIGs. These could then be used to create, visualize and exploit customer-centric networks as well as to support investment decisions into strengthening customer intimacy. To that end, three steps have to be taken to implement a CIG calculation and monitoring tool that can successfully be applied in business practice: data sourcing, operationalization of CIG constructs, and model validation.

Data sourcing. The basis of hard data supporting the individual components of customer intimacy has to be captured from existing Enterprise Information Systems and be fed into an aggregation tool. Customer Intimacy events (cp. Figure 5) are triggered by the change of relevant information in one or more of the underlying data elements and are incorporated into revised CIG values. The information related to interactions and joint activities can be found in two different types of sources: the customer information channels and the customer information sources. The customer interaction channels are all the media that a company and its employees use in order to communicate and interact with its customer on an individual basis. This includes for example email, phone calls, face to face meetings, social networks, call-center applications, etc. Marketing messages addressed to a fairly small number of customers would be included, if they include references to the individual assessment, while mass-media communications would not be taken into consideration. The customer information sources are all the information repositories in which tacit or explicit knowledge about the customer has been reported such as project databases, CRM systems, production systems, etc.
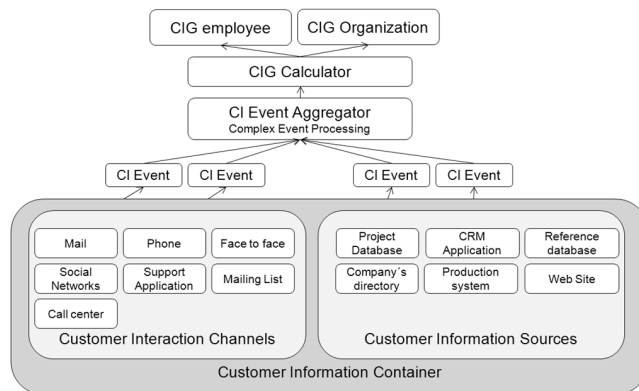

Figure 5: CIG calculation architecture

Operationalization of CIG constructs. Based on future field work, the relative importance of individual data elements and the CI events triggered by them have to be quantified (so far artificially assumed in the case study). The model's calibration can either be done bottom-up or top down. The bottom-up approach intents to survey industry experts based on the evidence that individual elements provide for customer intimacy and to aggregate them using evidence-theoretical or similar approaches [28]. Alternatively, top down approaches capture the customer intimacy assessments of industry experts in certain situations. This again could be achieved via two options: an explicit approach would require respondents to assess a CIG directly and then – based on a number of data sets – enable a best fit approximation of the relative importance via a statistical analysis of variance. On the contrary, an implicit approach would have respondents compare customer intimacy for sets of two individuals or organizations and derive the relative importance of data elements via conjoint analyses.

Model validation. Finally, the calibrated model has to be applied to business situations and tested for the perceived usability of the approach. The cooperation with CAS Software AG in Karlsruhe, a provider of CRM and enterprise information management systems enables the prototypical implementation and subsequent testing with selected customers.

4 Conclusion

This paper presents a novel approach for measuring the degree of intimacy established with a customer, leading to a performance indicator called the Customer Intimacy Grade (CIG). Built upon three layers, this model provides the capability to quantify the CIG at the individual and organizational level. In the first layer, the CIG is decomposed into meaningful indicators. In the second layer we apply concepts from graph theory in order to derive these indicators. Finally, in the third layer the customer information sources that contain individual evidences of customer intimacy are represented.

In an illustrative case study, we demonstrated the applicability and business benefits of this model, such as giving access to an overview of the relationships with customers, supporting the exchange of customer knowledge between different business units, and benchmarking intimacy grades in order to improve customer relationship processes.

Our research embodies a promising approach to measure customer intimacy across business boundaries and to equip service providers with a meaningful quantitative CIG indicator. Nevertheless, further research has to be done to fully evaluate the models indicators, metrics and aggregation operations. On the first layer, the weight of the different components must be specified, and it should be investigated whether additional components should be included by means of qualitative research methods. Conducting expert surveys, we furthermore need to specify how to leverage the multiple centrality indicators in order to represent the CIG of an employee, a team or a business unit. On the third layer, we will work in close cooperation with the company CAS AG in order to determine the most relevant and most accessible sources of customer intimacy evidence in existing enterprise information systems to leverage their full potential. In summary, the first results are promising and substantiate our contribution beyond today's approaches to holistically evaluate customer intimacy across individual and organizational boundaries.

5 References

[1]   M. Tuominen, A. Rajala, and K. Mo, "Market-driving versus market-driven: Divergent roles of market orientation in business relationships," *Industrial Marketing Management*, vol. 33, 2004, pp. 207-217.

[2]   S.L. Vargo and R.F. Lusch, "Evolving to a New Dominant Logic for Marketing," *Journal of Marketing*, vol. 68, 2004, pp. 1-17.

[3]   S.L. Vargo and R.F. Lusch, "Why "service"?," *Journal of the Academy of Marketing Science*, vol. 36, 2008, pp. 25-38.

[4]   M. Treacy and F. Wiersema, "Customer intimacy and other value discipline," *Harvard Business Review*, 1993.

[5]   E.L. Gubman, "Aligning People Strategies with Customer Value," *Compensation & Benefits Review*, vol. 27, 1995, pp. 15-22.

[6]   V. Kellen, "CRM Measurement Frameworks," 2002, pp. 1-37.

[7]   R. Kaplan, *A Balanced Scorecard Approach To Measure Customer Profitability*, 2005.

[8]   A. Potgieter and G. Roodt, "Measuring a customer intimacy culture in a value discipline context," *SA Journal of Human Resource Management*, vol. 2, 2004, pp. 25-31.

[9]   IndustryDirections and IBM, "Increasing Customer Intimacy, Value-Add and Profits Through Expanded Services," 2006, pp. 1-7.

[10]   C.K. Yim, D.K. Tse, and K.W. Chan, "Strengthening Customer Loyalty Through Intimacy and Passion: Roles of Customer–Firm Affection and Customer–Staff Relationships in Services," *Journal of Marketing Research*, vol. 45, 2008, pp. 741-756.

[11]   S. Cuganesan, "Calculating customer intimacy: accounting numbers in a sales and marketing department," *Accounting, Auditing & Accountability Journal*, vol. 21, 2008, pp. 78-103.

[12]   P.R. Niven, *Balanced Scorecard Step-by-Step: Maximizing Performance and Maintaining Results*, Wiley, 2002.

[13]   R. Kaplan and S.R. Anderson, *Time-Driven Activity-Based Costing: A Simpler and More Powerful Path to Higher Profits*, Harvard Business School Press, 2007.

[14]   G.A. Abraham, *Profit Power of Customer Intimacy: Deliver Top Line Revenue and Earnings Growth*, 2006.

[15]   J.E. Richard, *The Impact of Customer Relationship Management (CRM) Technology on Business-to-Business Customer Relationships*, Victoria University of Wellington, 2008.

[16]   V. Liljander and T. Strandvik, "The Nature of relationships in services," *Advances in Service Marketing and Management*, vol. 4, 1995, p. 143.

[17]   L. Bove, "Customer relationships with service personnel: do we measure closeness, quality or strength?," *Journal of Business Research*, vol. 54, 2001, pp. 189-197.

[18]   J.G. Barnes, "Closeness, strength, and satisfaction: Examining the nature of relationships between providers of financial services and their retail customers," *Psychology and Marketing*, vol. 14, 1997, pp. 765-790.

[19]   J. Mohr and R. Sohi, "Communication flows in distribution channels: Impact on assessments of communication quality and satisfaction," *Journal of Retailing*, vol. 71, 1995, pp. 393-416.

[20]   R.M. Morgan and S.D. Hunt, "The Commitment-Trust Theory of Relationship Marketing," *The Journal of Marketing*, vol. 58, 1994, pp. 20-38.

[21]   M. Sako, *Prices, quality, and trust: inter-firm relations in Britain and Japan*, 1992.

[22] J.M. Wilson, M. Boyer O'Leary, a. Metiu, and Q.R. Jett, "Perceived Proximity in Virtual Work: Explaining the Paradox of Far-but-Close," *Organization Studies*, vol. 29, 2008, pp. 979-1002.

[23] M.A. Hogg, "Social Identity and the Group Context of Trust: Managing Risk and Building Trust through Belonging," *Trust in cooperative risk management: uncertainty and scepticism in the public mind*, M. Siegrist, T.C. Earle, and H. Gutsche, 2007, pp. 51-72.

[24] E. Anderson and B. Weitz, "The Use of Pledges to Build and Sustain Commitment in Distribution Channels.," *Journal of Marketing Research*, vol. 24, 1992, pp. 18-34.

[25] D. Denison, "Corporate Culture and Organizational Effectiveness: Is Asia Different From the Rest of the World?," *Organizational Dynamics*, vol. 33, 2004, pp. 98-109.

[26] L. Freeman, "Centrality in social networks conceptual clarification," *Social Networks*, vol. 1, 1979, pp. 215-239.

[27] B. Buechel and V. Buskens, *The Dynamics of Closeness and Betweenness*, 2008.

[28] G. Shafer, *Mathematical Theory of Evidence*, Princeton Univ Press, 1976.