Five Styles of Customer Knowledge Management, and How Smart Companies Use Them To Create Value

MICHAEL GIBBERT, *University of St. Gallen and Yale School of Management*
MARIUS LEIBOLD, *Stellenbosch University, South Africa*
GILBERT PROBST, *HEC, Université de Genève*

Corporations are beginning to realize that the proverbial 'if we only knew what we know' also includes 'if we only knew what our customers know.' The authors discuss the concept of Customer Knowledge Management (CKM), which refers to the management of knowledge from customers, i.e. knowledge resident in customers. CKM is contrasted with knowledge about customers, e.g. customer characteristics and preferences prevalent in previous work on knowledge management and customer relationship management. Five styles of CKM are proposed and practically illustrated by way of corporate examples. Implications are discussed for knowledge management, the resource based view, and strategy process research.
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Keywords: Knowledge management, Customer relationship management, Customer knowledge management, Resource based view, Strategy process, Value creation

Introduction

With emphasis on knowledge as a key competitive factor in the global economy, corporations may be overlooking a major element – customer knowledge. For example: Old Mutual, the largest insurance company in South Africa (and an internationally expanding FTSE 100 quoted company on the London Stock Exchange) has been incorporating the knowledge of patients concerning their own health condition and treatment directly by way of electronic means, instead of relying only on medical doctors to provide this. Customer knowledge is being used by Old Mutual both to screen applicants for medical insurance and more importantly to develop new medical insurance products.

What is the reason for the increasing success of Old Mutual in South Africa and internationally? Partly due to a process called Customer Knowledge Management (CKM). It works like this: where patients' health evaluation forms were previously completed manually by their doctors, they have been replaced by electronic forms that can be filled in mainly by patients themselves, from the convenience of their homes. Patients still require medical examination by their doctors, but the advantage to all parties is speed, greater accuracy (doctors are notorious for poor handwriting), more information, and especially additional knowledge input from patients themselves. The issues of ethics and professionalism (e.g. security of information, patient-doctor relationship) of course have to be carefully managed, but the advantages of customer knowledge input of their condition, treatment, effects of particular drugs, perception of medical insurance companies and their products are substantial and valuable to pharmaceutical companies, insurance companies, doctors and

Box 1

> **Our Research Approach**
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> Over the past six years, we have studied more than two dozen companies, using a joint case writing approach (Davenport and Probst, 2002; Leibold *et al.*, in press). The objective of our research has been to discover what can be achieved if managers write their own accounts of change projects in which they have taken part or which they have researched personally. Such reports contain the managers' own reflections on the project and its results, including the lessons they learned, the difficulties they encountered, how they coped with them, what mistakes they made, and what they would do differently next time. All those who took part in the project were questioned not only about what happened, but also about how it happened:
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> 1. The group of case writers contains a group of managers from the 'case company', i.e. the company where the change project took place (the 'insiders'), and other involved people, i.e. research assistants, consultants, business partners, and coaches (the 'outsiders'). This adds an important dimension because the outsiders may play devil's advocate, questioning and challenging the inside view of the project.
> 2. Since the outsiders did not participate in the project, they are expected to research the details and to try to understand how things work in the 'foreign' company. This obliges the insiders to give careful explanations of details that they would otherwise take for granted. The outsiders in turn contribute an additional perspective because they come to the group with their own mental models of how things work in their own company.
> 3. When the 'outsiders' are exposed to the different approaches existing in the case company, they often become aware of tacit assumptions, rules and behavioral codes which are prevalent in their own organizations, and which might otherwise never be questioned. Differences that are not otherwise obvious are thus revealed between the 'case' company and the outside company. Discussion of these differences may also create a new awareness of certain rules, habits and behaviors in the case organization itself that are usually hidden below the surface.
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> The accounts produced in this fashion have been written jointly by a group of managers from insiders of the 'case company', i.e. the company where the change project took place, and outsiders. The inclusion of both 'insiders' and 'outsiders' as well as the inclusion of archival data as well as participant and direct observation allowed for extensive data, researcher, and method triangulation, adding richness to the evaluation and interpretation of the cases, thereby enhancing internal and construct validity of the conclusions drawn (Stake, 1995; Yin, 1994). In this fashion, an extensive case database and numerous case protocols were produced over the last six years, ensuring the reliability of the findings. Finally, concerns for external validity (particularly statistical generalizability) were traded off against the opportunity to gain in-depth insights, but cross case analyses were used to ensure at least analytical generalizability due to the wide range of industries studied (Yin, 1994; Eisenhardt, 1989).

other stakeholders in the health management industry.

Does CKM only happen in the pharmaceutical/ insurance industries? We think not. Over the last six years, we have studied more than two dozen companies, and found that smart companies are prolific customer knowledge managers (see Box 1: 'Our research'). Indeed, most companies today consider themselves as market driven, or customer-oriented. Yet only a few companies are actually managing well their perhaps most precious resource: the knowledge *residing in* their customers, as opposed to knowledge *about* their customers.

Our research shows that by managing the knowledge of their customers, corporations are more likely to sense emerging market opportunities before their competitors, to constructively challenge the established wisdom of 'doing things around here', and to more rapidly create economic value for the corpor-

ation, its shareholders, and last, but not least, its customers. CKM is the strategic process by which cutting-edge companies emancipate their customers from passive recipients of products and services, to empowerment as knowledge partners. CKM is about gaining, sharing, and expanding the knowledge residing in customers, to both customer and corporate benefit. It can take the form of prosumerism, mutual innovation, team-based co-learning, communities of practice, and joint intellectual property (IP) management. We have identified these as five styles of CKM, which are distinctively different practices, but not mutually exclusive.

Expanding on Customer Relationship Management and Knowledge Management

At first glance, CKM may seem just another name for Customer Relationship Management (CRM), or

Knowledge Management (KM). But customer knowledge managers require a different mindset along a number of key variables (see Table 1). Customer knowledge managers, first and foremost focus on knowledge *from* the customer (i.e. knowledge residing in customers), rather than focusing on knowledge *about* the customer, as characteristic of customer relationship management. In other words, smart companies realize that corporate customers are more knowledgeable than one might think, and consequently seek knowledge through direct interaction with customers, in addition to seeking knowledge about customers from their sales representatives. Similarly, conventional knowledge managers typically focus on trying to convert employees from knowledge hoarders into knowledge sharers. This is typically done by intra-net based knowledge sharing platforms, Yellow Page initiatives, and so-called 'ShareNets,' i.e. platforms and tools that have often sophisticated functions such as urgent requests, or incentive systems that reward both the giver and taker of knowledge using a 'miles and more approach' (e.g. Davenport and Probst, 2002). Clearly, traditional KM fulfils a vitally important role to the extent that knowledge becomes the key value-added resource in companies. However, this knowledge is typically shared, expanded and leveraged among employees (e.g. Davenport and Prusak, 1998), or between companies (e.g. Bardaracco, 1991), with little

systematic attention accorded to what could be the company's most important partner in the value creation process, namely the customer.

In contrast to KM's very appropriate focus on fostering productive and collaborative relationships along the lines of 'if only we knew what we know,' CKM proposes an additional dimension, namely 'if only we also knew what our customers know.' The logic of CKM seems counter-intuitive: the challenges of getting employees to share their knowledge with one another are daunting enough. In our discussions with more than a dozen Chief Knowledge Officers, the key problems expressed were 'How do we get our employees to accept, build on, and enrich the knowledge of their colleagues?' 'How can we get rid of 'not invented here' when we want to feed in sales process knowledge from local companies at our corporate headquarters?' Given these challenges associated with KM, why would customers, of all people, want to share their knowledge to create value for the company and then pay for their own knowledge once it is deployed in the company's products and services? This is further exacerbated because customers, like employees, are often not able to make knowledge, i.e. their experiences with the company's products, their skills, and reflections explicit, and thereby easily transferable and shareable. The concern here is the cost of establishing CKM approaches – are existing

Table 1 CKM versus Knowledge Management & Customer Relationship Management

	KM	CRM	CKM
Knowledge sought in	Employee, team, company, network of companies.	Customer Database.	Customer experience, creativity, and (dis)satisfaction with products/services.
Axioms	'If only we knew what we know.'	'Retention is cheaper than acquisition.'	'If only we knew what our customers know.'
Rationale	Unlock and integrate employees' knowledge about customers, sales processes, and R&D.	Mining knowledge about the customer in company's databases.	Gaining knowledge directly from the customer, as well as sharing and expanding this knowledge.
Objectives	Efficiency gains, cost saving, and avoidance of re-inventing the wheel.	Customer base nurturing, maintaining company's customer base.	Collaboration with customers for joint value creation.
Metrics	Performance against budget.	Performance in terms of customer satisfaction and loyalty.	Performance against competitors in innovation and growth, contribution to customer success.
Benefits	Customer satisfaction.	Customer retention.	Customer success, innovation, organizational learning.
Recipient of Incentives	Employee.	Customer.	Customer.
Role of customer	Passive, recipient of product.	Captive, tied to product/ service by loyalty schemes.	Active, partner in value-creation process.
Corporate role	Encourage employees to share their knowledge with their colleagues.	Build lasting relationships with customers	Emancipate customers from passive recipients of products to active co-creators of value.

KM approaches scalable, or do they need to be revamped completely? The answer to these two challenges (motivational and cognitive barriers to knowledge sharing) are twofold. First, the customer knowledge manager needs to put himself in the shoes of corporate customers, kindling their intrinsic, rather than extrinsic motivation to share their knowledge for the benefit of the company. Second, the costs of establishing CKM need to be evaluated.

Consider Amazon.com: The Internet retailer manages customer knowledge successfully through providing book reviews, the customer's own order histories, order history of other customers, and customized suggestions based on prior orders. Effectively, Amazon.com, a commercial enterprise, developed into a platform of book enthusiasts that are keen to exchange knowledge about their favourite topics (intrinsic motivation). Motivating customers to share their knowledge the Amazon way is a remarkable achievement, particularly if contrasted with the, often vain, efforts to evangelize employees from egoistic knowledge hoarders to altruistic knowledge sharers by way of rewards systems that are mostly extrinsic. While some (tentative) approaches exist that tie employee promotion and demotion to their propensity to share knowledge (e.g. Davenport and Probst, 2002), human resources management is still struggling with the legal implications associated with the establishment of the employee's knowledge sharing record as a basis for instilling an intrinsic motivation in employees to share their knowledge. What seems to prevail in KM so far is extrinsic motivation systems allowing, for example, prolific knowledge sharers to spend weekends in attractive locations.

An issue related to motivational factors is the knowledge sharing and relationship maintaining costs involved in CKM. To enable joint value creation, CKM Websites for Internet companies need to go beyond what Angehrn calls a 'non-committal brochure approach' (Angehrn, 1998, p. 291). Logically, to afford joint value creation between customer and company, Websites need to cater for interactivity. Interactivity is a matter of degree and can be seen as contingent on the nature of the company's product or service. Using interactive multimedia technology can significantly enhance the degree of interactivity. Consider banks. Most banks now offer cost-effective interactive sites which aim to create highly personalized services to the consumer, including the virtual counter, and to diminish the real impact of the economic slow-down on the investment portfolio of the customer, thereby increasing the motivation of customers to participate as well as reducing the cost. Such interactivity, using, for example, emerging approaches such as intelligent agent technology, can be costly to build from scratch, but often existing KM systems and databases are scalable to allow them to be opened up to the customer.

Clearly, Internet companies are at a competitive advantage when it comes to engaging in CKM, due to the Internet being a particularly cost-effective locus for such knowledge sharing. However, CKM is not limited to successful Internet companies. Bricks and mortar companies do it, too. Indeed, Holcim, an international cement company that produces the very stuff bricks and mortar are made of, is a keen customer knowledge manager (see Box 2: How Holcim manages customer knowledge).

Box 2

How the International Cement Manufacturer Holcim manages Customer Knowledge

Holcim's companies in North America recently were conducting analysis of how to deliver e-commerce solutions to their customers. But Holcim's aspiration was much more ambitious than simply doing e-commerce. The idea was to create a knowledge sharing platform, where any member of the community of cement and aggregates consumers (concrete producers, distributors, but also engineers, architects) would be able not only to transact business (place orders, pay online), but also share and exchange knowledge (e.g. share cement order forecast, share good and bad experience with specific applications, etc.).

In order to test and further develop this aspiration, Holcim's customer knowledge managers conducted meetings with selected customers in the US. To ensure that their different customer segments were adequately represented, the customer mix was intentionally varied, comprising selected large multi-nationals, medium domestic and small family owned companies. The objective of the meeting was to discuss current and emerging trends in the cement industry and the potential impact of these developments on Holcim's customers, thereby jointly ascertaining how Holcim could create value for their customers.

The discussion was open and free flowing – although Holcim had developed a set of value added services that were thought appropriate, Holcim did not implement these until after the customers had given their views, thereby adding value to the company's services. As one customer knowledge manager at the cement manufacturer has it: 'As part of the focus group discussions, Holcim's customers were impressed the company was talking to them – no other supplier had chosen to do this – all they were seeing were press releases. This made customers feel ownership in our project.'

In the meantime, Holcim has built and implemented the knowledge sharing platform in North America and Western Europe. What's more, during the entire 'build' phase, the company kept close contact with the customers and

permanently validated with them – which was much appreciated by Holcim's customers. A representative of a large multinational mentioned: 'I like your knowledge sharing platform, because you were listening to what I told you during the first visit and really took my comments very seriously!'[1]

A shift in mindset towards looking at the customer as a knowledgeable entity has far-reaching implications. Most importantly, the customer is emancipated from being a passive recipient of products and services as in traditional knowledge management. Likewise, the customer is liberated from the ball and chain of customer loyalty schemes prevalent in CRM. CKM is also different from traditional KM in the objective pursued. Whereas traditional KM is about efficiency gains (avoidance of 're-inventing the wheel'), CKM is about innovation and growth. Customer knowledge managers seek opportunities for partnering with their customers as equal co-creators of organizational value. This is also in stark contrast to the desire to maintain and nurture an existing customer base. The well-known CRM adage 'retention is cheaper than acquisition' comes to mind. Unfortunately, retention becomes increasingly difficult in an age where competitors' product offerings are often close imitations and only three mouse-clicks away. Therefore, customer knowledge managers are much less concerned with customer retention figures. Instead, they focus on how to generate growth for the corporation through acquiring new customers and through engaging in an active and value-creating dialogue with them.

How do customer knowledge managers create innovation and growth? Again consider Amazon.com. The book retailer's customers not only provide their insights, tips and tricks in terms of book reviews, they also provide useful pointers for further reading on a given subject, giving a custom-tailored, non-intimidating impetus for other customers to investigate – and possibly buy – these sources. What is more, this customer knowledge can be shared with the authors of new books, giving them ideas for further publications and their market potential. This process bears all the hallmarks of KM: it provides useful information that is used in actions, creates sense, asks for interpretation, and leads to new combinations. Only, the knowledge is not that of the employee, but that of the customer, leading to value creation through innovation and growth, rather than to cost savings as in traditional KM. Returning to Holcim, the concrete manufacturer provides an example of how a bricks and mortar company reaps the benefits of CKM (Table 2).

CKM in Theory and Practice

Customer-driven companies need to harness their capabilities to manage the knowledge of those who

Table 2   Holcim's CKM Approach

Key area	General Description	Benefits
Trouble-shooting	Online solutions to customer-related inquiries (i.e., cement- and concrete-related problems, strengths).	Reduced time to solve problems savings in labor and materials if rework is prevented, increased satisfaction of concrete manufacturer's customer, enhanced reputation of cement manufacturer.
Quality control & product optimization	Collection of test data, document submittal and approvals, mix design.	Reduction in usage of cement, optimization of setting times, optimization of raw material resources (co-development of products), reduction of cement customer claims.
Inventory/supply management	Automatization of the inventory and supply processes.	Elimination of costly plant shutdowns for lack of cement.
Purchasing	Enable customer to access HBK purchasing platform	Price reductions in raw materials, trucks, and equipment.
Technical library	Comprehensive data warehouse on HBK core products.	Easy access to rich sources of information of the cement manufacturer's knowledge base.
Engineering consulting	Provide business services and expertise.	Educating concrete manufacturers in business management will improve their efficiency.
Promotions/ testimonials	Access to tools and information to 'grow the pie.'	Educating specifiers in concrete lifecycle costs will increase the adoption of concrete vs other materials
Market information	Consolidation of micro and macro analysis of market information.	Exposure of the concrete manufacturer to business opportunities and market tracking information

buy their products (Baker, 2000; Davenport and Klahr, 1998). The question is, why do many customer-driven companies not access the knowledge of their customers directly? The problem is that the existing mindset, as evidenced by the literature, provides very little assistance to these companies.

Traditionally, market research was used to shed more light on what the customer knew and thought about the product, and how this differed from what the company had to affor the customer, resulting in enormous CRM databases (Galbreath and Rogers, 1999; Wilkestrom, 1996; Woodruff, 1997). More recently, firms thought they had found a new approach to access customer knowledge. Drawing on best practices from service companies, such as the big consulting businesses, most large organizations have instituted KM systems. These systems, however, are based in an indirect understanding of what customers want. KM systems are typically geared towards disseminating what their salesforce or intermediary has understood from listening to the customers who bought, or didn't buy, the company's products.

It's ironic: the conceptual predecessor of KM has surpassed its own offspring. Ten years ago, proponents of the resource-based view to strategy proclaimed that a company is best conceptualized as a bundle of unique resources, or competencies, rather than as a bundle of product market positions (Barney, 1991). More recent contributions to the resource-based view question this one-sided thinking about the locus of competence (Prahalad and Ramaswamy, 2000; Inkpen, 1996). It has now been claimed that such competence actually moved beyond corporate boundaries, and that it is therefore worthwhile to also look for competence in the heads of customers, rather than only in the heads of employees.

> *Would customers, want to share their knowledge to create value for the company and then pay for their own knowledge once it is deployed in the company's products and services?*

Similarly, CRM has been traditionally popular as a means to tie customers to the company through various loyalty schemes, but it left perhaps the greatest source of value under-leveraged: the knowledge residing in customers. While both KM and CRM focused on gaining knowledge *about* the customer, managing customer knowledge is geared towards gaining knowledge directly *from* the customer.

Whilst the literature provides little guidance for aspiring customer knowledge managers, we have found in our research of two dozen companies (including the medical, financial services, measurement, agricultural chemicals, telecommunications, and beverages industries) a wide variety of different approaches to managing customer knowledge. Indeed, the very chasm between the wealth of practi-cal examples of (intuitive) CKM and the dearth of (explicit) literature and guidance for managers seems remarkable. While we detected a wide variety of different approaches used by companies who manage customer knowledge, what was even more intriguing were similarities among the individual approaches. We have crystallized these similarities in five styles of CKM, as displayed in Table 3.

Five Styles of CKM and Their Application

This section discusses our research findings in terms of the five styles of CKM by elaborating on Table 3.

Prosumerism

Alvin Toffler (1980) first used the expression 'prosumer' to denote that the customer could fill the dual roles of producer and consumer. Such co-production is not new, e.g. Bosch develops engine management systems in co-production with Mercedes-Benz, who conceives and assembles the automobiles. What is new is the way that knowledge co-production with the customer expresses itself in role patterns and codes of inter-activity. For example, Quicken enables the customer to learn more about the available resources in financial services, thus creating options and a pre-disposition within the customer to rapidly tailor-make an offering in the future, also based on creatively suggesting new ideas and benefits.

The way IKEA, the living environment furniture retailer, presents itself to customers is all about co-production, about how benefits and activities have been reallocated between producer and customer. The CKM process in IKEA transforms the customer into a co-value creator, endowing him/her with new competencies and benefaction opportunities. It liberates the customer from the platform of only past, accumulated knowledge by stimulating him with a pattern of open-ended value-creating ideas, thereby effecting co-production and mutual new value evidenced in new IKEA furniture products and services.

Team-based Co-learning

The way that Amazon.com has manifested itself structurally has created a whole new set of team-based value chain (or systemic) learning relationships utilizing the knowledge of its customers. For example, the

Table 3 Five Styles of CKM

Style/Characteristic	Prosumerism	Team-based Co-learning	Mutual Innovation	Communities of Creation	Joint IP/Ownership
Focus	Developing tangible assets and benefits	Creating corporate social capital	Creating new products & processes	Mission-specific. Professional expertise	Tangible customer IP sharing
Objective	Improved products & resulting benefits	Facilitate team learning for dealing with systemic change	Create max. return from new ideas	Obtain & explicate professional expertise	Max. returns on IP (jointly)
Processes	Pre-, concurrent- & post- production integration	Teamwork, empowerment, case development, quality programs	Idea fairs; brainstorming; customer Incubation	Best practices CoP's, expert networks	Apprenticeships Formal training programs On job training
Systems	Planning, control and decision supply systems	Knowledge sharing systems, digital 'nervous' systems, customer visits in teams	Idea generation support systems	Expert systems, shared e-workspaces, group support systems	Group IP support systems
Performance Measures	Effectiveness & efficiency, customer satisfaction & success	Systems productivity, quality, customer satisfaction & success	ROI from new products & processes, customer success	K-sharing behavior, timeliness of decisions, Rate of hyperlinked results	Value of new IP, incremental ROI on new revenue streams
Case Examples	Quicken; IKEA	Amazon.com; Xerox, Holcim, Mettler Toledo	Silicon Graphics, Ryder	Microsoft; Sony; eBay, Holcim	Skandia
Intensity of Interaction	Relatively low	Low to high	Relatively low	Relatively high	Relatively high
Type of Knowledge	More explicit	Explicit and tacit	More tacit	More tacit	More explicit

inter-linkages with the customer base and their inter-active joint learning performance have made the company an attractive channel also for many other companies – we may now conceive Amazon.com no longer as a bookstore but a generalized access channel (or 'portal') for a wide range of products and services, many offered by separate but systemic-linked companies. Through the customer-systemic knowledge and co-learning interactions, Amazon.com's original identity has been transformed, which in turn implies new value chain systems relationships.

The change process in Xerox Corporation, from being a 'copying machine company' to becoming the 'document company' is similarly based on organizational learning resulting from CKM. Customer knowledge was the key to reconfigure the entire system of document management and its infrastructure, spanning resources and processes much broader than its own traditional realm of activities. Whereas the Prosumerism CKM style focuses more on co-production of products and services, team-based co-learning focuses on reconfiguring entire organizations and systems of value.

Mutual Innovation

In the 1970s, Eric von Hippel found that most product innovations come not from within the company that produces the product but from end-users of the product (von Hippel, 1977). More recently, Thomke and von Hippel (2002) suggested ways in which customers can become co-innovators and co-developers of custom products, and illustrating examples of GE and General Mills. For Silicon Graphics, lead customers from the movie industry have become an important source of new ideas and innovation. Silicon Graphics sends its best R&D people to Hollywood to learn firsthand what the most creative users of its products might want in the future. In addition, Silicon Graphics nurtures relationships with lead users from other industries that require massive computation and high-end graphics – such as for drug design and aerospace landing gear. Simply asking users about their future needs is unlikely to result in new products (although it can lead to continuous product improvement); the major breakthroughs come from mutual and closely integrated innovation practices.

Ryder Systems in the trucking industry is another

example of utilizing customer knowledge through mutual innovation. In close collaboration with customers Ryder developed complex and extensive logistics solutions for its customers, probing deeply into the operations and even manufacturing and supply chain strategies of customers. Jointly they developed special knowledge of truck drivers' requirements, thereby reconfiguring truck personnel management activities. Ryder in effect has become, via mutual customer innovation, a logistics systems solutions expert, transcending its identity as a trucking company.

Communities of Creation

Communities of creation as a CKM style is reflected by the process of putting together customer groups of expert knowledge that interact not only with the company, but importantly also with each other (Sawhney and Prandelli, 2000; Wilkestrom, 1996). Similar to communities of practice, communities of creation are groups of people who first work together over a long period of time, second they have an interest in a common topic and third, want to jointly create and share knowledge. Unlike the traditional communities of practice, however, communities of creation span organizational, rather than functional boundaries to create common knowledge and value. In the traditional computer software development process, Netscape and Microsoft make use of free 'beta' versions of its products for use, testing, comments and reporting not only to the company, but also among the user community itself. They enlist thousands of willing, devoted testers, some just interested in using the free 'beta' product and others intent on looking for 'bugs' to show off and perhaps even collect a prize. Customers appreciate product newsgroups and 'chat rooms', where they can also learn how the companies are acting on their feedback – resulting in loyalty and even a sense of ownership.

Sony and Panasonic in the consumer electronics market have set up 'antenna shops' at locations such as shopping centers and airports, that demanding customers frequent and prototype products are featured. Customers can experiment, test, and converse with each other, and development engineers and product managers are available to talk to and watch customers, getting first-hand knowledge of customers reactions and what they really want. Another example of a company effectively utilizing a community of creation style of CKM is the Weight Watchers. This company brings groups of customers together in order for customers to exchange knowledge and experience, and for weight watchers to obtain insights for CKM. The important point is that this does not happen in itself – it has to be carefully managed even if participation is voluntary and intrinsic as tends to be the case with Weight Watchers.

Joint Intellectual Property

This style of CRM is probably the most intense involvement between customer and corporation – the notion of the corporation being 'owned' by its customers. The Swedish companies Skandia Insurance and Kooperativa Förbundet (KF) increasingly think of themselves as businesses owned by customers, i.e. being in business for and because of their customers. Thus, intellectual property does not reside in the company, but is 'owned' partly by the customers. This formula enabled KF to make remarkable achievements over a long period of time, becoming a pioneer in customer education and the consumer movement through joint knowledge ownership and its continuous development. Instead of just co-producing products and services together, customers and company co-create future business together. For example, the broker, banking and other retail customers of Skandia combine with the company's key strategy decision-makers to review the scope of joint business, possible joint new strategic initiatives, and joint knowledge expansion of e.g. emerging markets. Customer success in fact becomes corporate success, and *vice versa*.

Discussion and Implications: Common Stumbling Blocks for CKM

CKM can provide a significant competitive advantage for companies, but its possible stumbling blocks have to be appreciated. We have identified two major stumbling blocks, first the cultural challenge (in terms of re-thinking the role of the customer and the far-reaching implications this has for the mindset of employees within the organization), and second the competency challenge (in terms of the skills and processes needed to take full advantage of participative techniques).

In our discussions with managers, the *cultural challenge* was most fundamental. Companies affected by this challenge typically perceived customers as a source of revenue, rather than as a source of knowledge. We encountered three reactions. The first could be called 'corporate narcissism' and was characterized by statements such as 'we know our own business better than our customers do.' This was compounded by well-known business aphorisms such as Sony's proclaiming that 'no customer ever asked us to develop the Walkman.' The second reaction was the exact opposite of corporate narcissism, namely, lack of a critical perspective when it comes to customer knowledge. For example, Harley Davidson's chairman and CEO Jeffrey L. Bleustein said at the Fortune Leadership Conference in Chicago in April 2002 that Harley customers asked the company to produce cigarettes with the Harley Davidson Brand, a venture that was soon discontinued, even though market research showed that 80 per cent of the company's customers

are smokers. The third reaction, which might be dubbed 'corporate shyness' was colorfully illustrated by a senior manager at Siemens' headquarters in Munich, who succinctly summarized the increase in transparency of internal processes and the sharpened scrutiny from the perspective of the customer as 'walking around naked on a crowded Marienplatz at noon.' With regard to the first two reactions, companies interested in CKM need to appreciate that customer knowledge should be taken with a grain of salt. Customer knowledge constitutes an important ingredient in innovation processes, but it is not a panacea, and certainly does not replace the R&D department. With regard to the third reaction, just as CKM does not mean accepting all customer knowledge at face value, companies need to realize that CKM does not mean disclosing all knowledge of the company to all customers. This calls for appropriate network security processes ('Chinese Walls'), as well as trust-building processes that enable companies to purposefully encourage the flow of knowledge in certain areas, while controlling or limiting it in others.

The second challenge, the *competency challenge*, was inextricably related with the cultural challenge discussed above. Companies faced with the competency challenge realize that their existing KM or CRM systems were developed with a specific purpose in mind – typically as an intra-company knowledge-sharing platform for sales and marketing knowledge. Companies interested in opening up these systems to their customers find that platforms designed for internal usage are scalable only to a limited extent and certainly do not allow the kind of interactivity and convenience of single-point of entry access that customers expect. To be seamless, the CKM system should embrace a suite of technologies, including intelligent agent software that, if properly integrated, provides a single user interface for access to knowledge resources and business processes. The purpose of a model for CKM is to provide customers with access to all relevant knowledge resources – in essence, to act as a universal integration mechanism. Content needs to be available through both pull – finding a document or a person – and through push – publishing and alerts originating from elsewhere.

While user-friendliness is a necessary condition, it is not a sufficient one. Customers need to be afforded a tangible benefit from the interaction with the company, besides mere user-friendliness. CKM means realizing value not only for the company, but also for customers. To the extent that the locus of competence shifts from within the corporate boundary to the customer, CKM not only requires re-thinking the locus of competence, it also requires re-thinking the primary beneficiary of corporate value creation. Value appropriation in customer networks (Prahalad and Ramas-

> 66 *Customer success in fact becomes corporate success, and vice versa* 99

wamy, 2000; Sawhney and Prandelli, 2000) and in the open source community (e.g. Lakhani and von Hippel, 2000) has been attracting some debate recently. For CKM to be sustainable, companies may need to feed back some of the value to its co-creator, the customer. These forms of value-sharing would include obvious approaches such as 'greater customer satisfaction' and personalized products and services, but might also mean actual monetary compensation for the customer for his/her services, e.g. in the form of special offers, preferential financing agreements, or even outright payments.

Overall, if you are a CEO or a senior manager who is planning to or has already initiated a CKM project, we would like to suggest that you consider the following two key questions:

❖ How do we perceive the customer today, does the mindset in our corporation allow for treating the customer as a potential source of value, and are we ready to share this value?
❖ What are our current skills and competencies when it comes to designing and implementing collaborative knowledge exchange processes that cross our corporate boundary?

Conclusion

Customer knowledge management (CKM) creates new knowledge sharing platforms and processes between companies and their customers. We suggest that the five styles of CKM can be prosumerism, group learning, mutual innovation, communities of creativity, and joint intellectual capital. Any company, depending on the nature of its various customers, can apply several of these five styles of CKM simultaneously. Certain cautions have to be observed when applying CKM, and if these are well incorporated, the competitive advantages of sound CKM applications in the expanding digital economy seem significant.

CKM constitutes a continuous strategic process by which companies enable their customers to move from passive information sources and recipients of products and services to empowered knowledge partners. Available case-study evidence points to CKM as a potentially powerful competitive tool, contributing to improved success of both companies and their customers. It incorporates principles of KM and customer relationship management, but moves decisively beyond both to a higher level of mutual value creation and performance. More specifically, the notion of CKM as presented here contributes to the KM literature by providing an expanded view of 'organizational epistemology' (von Krogh and Roos, 1995; von

Krogh *et al.*, 2000), i.e. one that includes the customer as a knowledgeable agent in the knowledge creation process. More generally, we contribute to the resource-based view of corporate strategy by offering a perspective of how KM, as an outgrowth of the resource based view (Grant, 1996; Spender, 1996), incorporates customer knowledge as an important organizational resource residing outside the corporate boundary (e.g. Prahalad and Ramaswamy, 2000). Finally, we endeavor to add value to the strategy process literature by suggesting that customers, in addition to managers, can induce strategy-making processes in the firm (e.g. Mintzberg and Lampel, 1999; Burgelman, 2002).

It will remain for future research to refine, expand, and operationalize this list of styles. At this point, however, some general implications of these styles are apparent.

First, it is important to note that, on the whole, the interrelationship between the five styles with different industries could be tested. While our comparative within and between case analysis involving a variety of industries seems to ensure the external validity of our findings (Eisenhardt, 1989, p. 547), clearly further research could investigate whether and how one or more of the five styles is brought into sharper focus than the other in different industries.

Second, we suggest that joint value creation also implies joint value appropriation. We also suggest that the five styles differ in the intensity of value creation and value sharing mechanisms. If the five styles were to be made more relevant for managerial practice, research could investigate the contractual mechanisms that need to be in place to ensure that the partnership company/customer proceeds in ways compatible with its original rationale. We propose that these investigations probe deeper in the extent to which contractual agreements are necessary for each of the five styles.

Finally, the conclusions reinforce assertions of knowledge being 'socially constructed' (e.g. Spender, 1996), in our case through the interaction of the customer with members of the organization. This observation goes beyond the traditional realm within which such construction occurs, namely the intra-organizational space (von Krogh and Roos, 1995), and suggests that it should be interesting to investigate if, and to what extent the customers' views differ from the 'way we do things around here' in the firm. This could help shed new light on the question why some core competencies turn into core rigidities (Leonard-Barton, 1995).

Acknowledgements

Notes
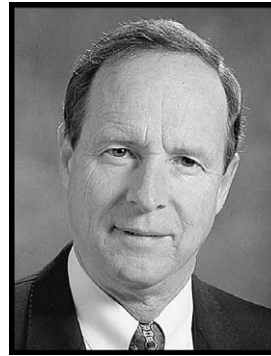
1. (Alois Zwinggi and Lucas Epple provided this example.)

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MICHAEL GIBBERT, *Yale University School of Management, 406 Prospect Street, New Haven, CT 06511, USA. E-mail: michael.gibbert@unisg.ch*

Michael Gibbert is a Doctoral Candidate at the University of St. Gallen Institute for Leadership and HRM, with Siemens AG in Munich, and currently (2002) on leave at Yale University. Present research interests centre on the management of innovation in highly-diversified firms, knowledge-based competitiveness and case study research methodology. A forthcoming book (with Marius Leibold and Gilbert Probst) is Strategic Management in the Knowledge Economy *(Wiley).*

GILBERT PROBST, *HEC, Université de Genève, boulevard du Pont d'Arve 40, 1211 Genève, Switzerland. e-mail: probst@hec.unige.ch*

Gilbert J.B. Probst is Professor of Organizational Behaviour and Management at the University of Geneva, where he also directs the MBA program. He is founder and chairman of the Geneva Knowledge Forum comprising 20 multinationals, and co-author of Managing Knowledge *(Wiley).*

MARIUS LEIBOLD, *Stellenbosch University, Victoria Street, 7600 Stellenbosch, South Africa. E-mail: leibold@mweb.co.za*

Marius Leibold is Professor in Strategy at Stellenbosch University and at the Netherlands Business School. His research focuses on new business models for global competitiveness, incorporating complexity and fuzzy management approaches applied in various industries.