Industrial Sales People as Market Actors – a Case Study

Susi Geiger and John Finch*

Competitive Paper submitted to Special Track B, Developing Marketing Practices and Market Forms, 24th IMP Conference, Uppsala University

Abstract: This paper presents a view of sales people as boundary shapers, rather than boundary spanners. Contributing to the perspective of markets as performed through market actors and drawing on situated learning theories, it presents a case study from the upstream petroleum industry that demonstrates how sales personnel negotiate and enact multiple, simultaneous and dynamic market forms in their customer relationships.

Key words: Market practices, sales people, boundary spanners, industrial chemistry, case study

Susi Geiger
Marketing Group,
UCD Smurfit Business School
Carysfort Avenue, Blackrock
Co Dublin, Ireland
T: +353-1-7168959,
susi.geiger@ucd.ie

John Finch (corresponding author)
Department of Marketing,
University of Strathclyde,
Stenhouse Building, 173 Cathedral Street,
Glasgow G4 0RQ, Scotland,
T: +44 141 548 5899,
john.finch@strath.ac.uk

Industrial Sales People as Market Actors – a Case Study

1. Introduction

Sales personnel play a significant role in the performance and development of industrial markets. Most research on sales considers the roles of different sales personnel – sales force, key account managers, sales managers, extending at times to marketing managers – in contributing to their own companies. Researchers have examined relationships between training, motivation, personal skills, incentives and technology on sales performance (for instance, Ellis, Chonko and Roberts, 2004; Buehrer, Senecal and Bolman Pullins, 2005; Harris, Mowen and Brown, 2005; Liu and Comer, 2007). Sales research also considers the role of selling companies' sales personnel on buying companies, and more specifically, on the relationship between buying and selling firms (e.g. Guenzi 2002).

Sales people have long been regarded as the prototypical boundary spanners (e.g. Matsuo 2006), mediating directly and personally between the buying and the selling organisations. Guenzi, Pardo and Georges (2007) note that sales personnel, especially key account managers, have the significant role of being boundary spanners between selling and buying companies, thereby establishing and working within relationships as a normal working practice. As boundary spanners, sales people seem to endeavour to suspend or even suppress a market by creating and maintaining strong and enduring relationships with their customers. But, as Callon (1998) claims, markets make exchanges and exchanges make markets, so sales personnel are involved intimately in market-making and exchange-making activities, whether they engage in relational, key account or perhaps transactional selling. To date, however, the sales literature has failed to shed a comprehensive light onto the sales person's *market*, rather

than *relationship*, making and shaping activities, contributing to a view of sales relationships as suppressing rather than contributing to performing markets.

This paper explores the question of sales people's market shaping activities by presenting a company case study from the upstream petroleum industry, where multiple market and relationship forms are maintained by selling personnel at the same time and often with the same company. Our aims are to show that: 1. in their relational (or boundary spanning) activities, industrial sales people actively, if sometimes unintentionally, shape the markets in which their relationships are embedded; and 2. vice versa, markets seen as social organisations actively influence and interfere with the buyer-seller exchanges and resist being 'spanned' or suppressed by sales people's relational efforts. In this paper, we seek to further the agenda set by Kjellberg and Helgesson (2006) in investigating multiplicity in market practice, focussing on the multiple, simultaneous and often incoherent market shaping practices of industrial sales people.

2. Theoretical Background

This paper begins with the radical ontological claim that markets like companies are social organisations worthy of marketing researchers' attentions (Helgesson and Kjellberg, 2006, 2007; Araujo, 2007). We are not arguing that sales personnel are members of markets instead of being members of companies, and such a dualistic view plays to an agenda of markets and hierarchies rather than markets being performative. Instead, this paper's point of departure is that in their normal activities, practices and performances, sales personnel contribute to the ongoing nature of both. As a consequence, we highlight that boundaries are constitutive of markets and of the activities of sales personnel therein and are identifiable

(human and non-human) 'others'. Hence, we question the nature, function and significance of companies' boundaries where these are perceived to be with markets (Araujo et al., 2003). For example, Rinallo and Golfetto's (2006) research on fabrics producers' trade shows demonstrates that sales personnel contribute to and develop the organizing forms of their company, buyers and the trade show simultaneously.

We view markets as complex ecologies of entities and the entities' selective connections and relationships. A market's phenomena can include the practices of actors in conducting exchanges of goods (including services), positioning goods in relation to some others, sorting practices such that actors can identify those 'others', and calculating and un-calculating tools and practices, in which actors interested in conducting exchanges seek to establish, qualify and compare goods (Callon, Méadel and Rabeharisoa, 2002; Kjellberg and Helgesson, 2006; Cochoy, 2008). Practices can also disclose theoretical perspectives of markets (Callon, 1998; MacKenzie and Millo, 2003). A market's entities often invoke others, who or which are associated with other organizations. Our ecological vision of markets is a radical departure from that invoked in the dual of markets and hierarchies, especially as boundaries. We understand boundaries as being multiple in actors' market activities, for instance between other goods and a form of standards, which others can draw upon to rank that market's goods. Or between an actor's activities in designing products and her images of how that object may be used by a customer or client.

We situate this paper in a research tradition where the emphasis is on *practice*, understood as a "recurrent, materially bounded and situated action engaged in by members of a community" (Orlikowski 2002, p. 256). Orlikowski's (2002) mention of materiality is vital to our argument as we develop a conceptual account of the practices of sales personnel that features markets as well as relationships. If the relationships of sales personnel with their clients and

customers are seen to dominate, other elements of markets can be suppressed because other comparable objects are also suppressed. This debate is subject to some controversy in the broader social studies of markets (Callon, 1998, 2005; Miller, 2002, 2005). We contend that relationships in sales cannot suppress a market's other entities, but instead sales and these 'others' mutually shape, interact and interfere with one another, because they share material dimensions that are closely intertwined with cultural, social and relational dimensions. While Beunza, Hardie and MacKenzie (2006) argue that prices are social objects, marketers and sales personnel also present objects of exchange, which are markets objects such as goods and services, their terms of exchange, agreements, performance and quality criteria and so on. However weak and however weakly invoked, these objects present some dimensions of objects in ways which are visible and interpretable in and beyond a relationship (for instance, at a trade show, in a brochure, on a web site), presenting others with an opportunity and means to join in and so reshape a particular setting of sales activities (Callon Méadel, and Rabeharisoa, 2002; Garfinkel, 1967, p. vii, 2002, p. 118).

In adopting Orlikowski's practice perspective, we also recognize the situated nature of sales people's actions and cognition. Adding to the notion of sales people's practices, Turley and Geiger (2006) argue that sales personnel acquire and experience learning most effectively while situated in their selling relationships, as opposed to through formal training. This logic can be extended to the shaping and maintenance of markets through the buyer-seller interaction. To begin with, if sales people acquire most of their relational knowledge *in situ*, it can also be argued that they develop their practical understandings of markets *in situ*, through seeking to understand, influence, and thus perform and shape the market in their day-to-day interactions with buyers, other sellers, and market intermediaries. While the literature on boundary spanners has from the outset recognised the importance of actors' information

gathering in the business system (e.g. Christiaanse, 1994), we argue that this view is too passive. Sales personnel do not *gather* information as much as perform the market in real time through their situated actions. As Muniesa, Millo and Callon (2007, p. 5) state, "[i]n markets, representation and intervention are intertwined."

Levina and Vaast (2005, p. 339) define boundary spanners' activities "as relating practices in one field to practices in another field by negotiating the meaning and terms of the relationship. They engage in building a new joint field "in-between" the two fields." While we applaud their practice perspective on boundary spanners and their emphasis on the 'in-between', we argue that in relation to sales personnel and markets, Levina and Vaast's definition places insufficient emphasis on the multiplicity of forms and of overlaps these fields can have in the material as well as social ways in which actors achieve their overlapping. Boundary spanning assumes a relatively stable boundary to be spanned; by contrast we argue that the boundaries shaped by sales people are plastic and thus amenable to redefinition through situated practices.

In recognizing that sales personnel are situated in and contribute to the development of markets, we grant sales personnel a means or form of identity additional to, for instance, company, profession and key account. Sales people are situated in series of personal relationships with buyers, with other sellers (colleagues and possibly those working for other companies), and with colleagues with other roles in their own companies, which in turn combine in a social organisation called 'the market'. Thus, we are augmenting a sales person's identity as being with their company and being vis-à-vis a customer with other identities formed in these series of relationships and primarily in relation to their market-shaping activities. We represent the sales person not so much as boundary *spanner*, but rather

as market *shaper*, where they define and redefine boundaries everywhere on the spot and where the same actors often manage their multiple boundaries simultaneously.

We will examine instances of market shaping, taking account of multiplicity and simultaneity, through the case study presented below. In particular, we will draw attention to how the materiality of markets objects becomes visible and so allows others to join in with exchange practices at (often dynamic) boundaries, so adding yet further dimensions to that boundary.

3. Research Design

The research method is the case study method (Yin, 1994). A single case design was chosen to provide 'richness' of empirical illustrations and findings (Weick, 2007). According to Siggelkow (2007), conducting a single case study of organisations can be a valuable research approach in three distinct situations, namely for purposes of motivating, inspiring, and illustrating theoretical development. Ours is an 'inspirational' use of the single case, consistent with an aspiration of inductive theory generation because we seek to show how market shaping is a more appropriate description of the activities of sales personnel compared with boundary spanning (Eisenhardt, 1989; Eisenhardt and Graebner, 2007; Easton, 1995).

The paper's particular case setting is of sales personnel employed by an industrial chemicals company, Subchem, which offers a range of products and services to oil companies concerned with ensuring the continuity of production in oil and gas fields. Motivated by the multiplicity of market and relational forms in place often simultaneously in this industry, the research study was planned to inductively explore practices of work and interaction within Subchem's three main departments (sales, operations and technical) and as embedded in

markets and relationships to customers and competitors. We undertook research with Subchem during 2006 and 2007, including documentary reviews, 20 face-to-face interviews with senior managers, sales, technical and operations personnel, and non-participant observation where we attended account review meetings between Sunchem and its two most significant customers. Data were transcribed verbatim and analysed using the qualitative software package QSRNVivo. Initially, the researchers analysed their data separately, proposing categories through coding and recoding. We then reviewed categorical schemata collaboratively and proposed common categorizations. Member checks were conducted where access was available. The data presented in this paper pertains to sales people's market and customer activities as opposed to internal relational practices, but it remains in the context of the overall data picture of three company departments and respective networks making sense of their respective work practices.

4. Data Analysis

4.1 Case Background

Subchem is a group within a much larger, trans-national chemicals company, which is active in different industrial sectors, with its oil fields services groups also operating internationally. We focus specifically on its operations in the UK and Norwegian sectors of the oil industry. A significant trend in the oil industry in the UK and Norway is with oil companies coping with maturity, manifested for instance in extending the life of oil and gas fields and so protecting production and pipeline infrastructure from corrosion. Two further trends are important, of adapting products to stricter environmental legislation and of, in the Norwegian

sector, coping with new oil fields coming on-stream in the more challenging physical settings on the fringes of the Arctic.

For the sales personnel the conditions of selling and of contributing to the existence and nature of markets in this area are shaped by the materiality of their customers' oil and gas fields. The chemical regimes of oil and gas fields change as production tends towards For example, the geological formations in which oil companies discover maturity. hydrocarbons also contain accumulations of water. As production continues from oil fields, their reservoirs become depleted of oil and so the proportion of water being produced increases. The "produced water" forms alongside the oil, trapped in a reservoir, and usually contains traces of chemicals such as barium, which can later form as barium sulphate. In short, for an oil or gas field, the reservoir together with its production infrastructure is a dynamic system, which production chemists monitor in order to adapt its treatments. All of Subchem's sales personnel have a background in chemistry and most have worked in Subchem's labs or those of another production chemistry producer. Partly because of the complexity and dynamics of the oil field systems, multiple layers of market relationships are often existent between buyers and sellers, indeed between a particular buyer and a particular seller, at the same time. As the following paragraphs will show, while sales people aim at an idealised situation where a customer relationship suppresses the market entirely, being 'inside' or 'outside' the market and/or the customer-firm dyad is never clear-cut in this industry. Indeed, the very boundaries between supplier and customer, competitor and market, are slippery in nature and open to renegotiation at all times and particularly where market objects become visible.

4.2 Relationships and markets

In relation to their customer facing activities, Subchem sales personnel are primarily guided by the contractual regime by which Subchem develops its relationships with each oil company. For many years, oil companies have operated a regime of Chemicals Management Services (CMS) contracts, which are typically of five years' duration and, in theory, signal an exclusive contract between an oil producer and its chemical supplier. Through CMSs, oil companies typically retain a senior chemist to oversee and direct the activities of a production chemistry supplier, such as Subchem, subject to quarterly reviews. Senior sales personnel are involved in developing tendering documents when the CMSs come up for offer. Where Subchem holds a CMS, a number of its personnel work closely with the customer, often being co-located at the customer's premises.

It is important to note that CMSs are not straightforwardly exclusive contracts. The emphasis is on services management, which is exclusive. Upon the award of a CMS, Subchem will find itself having to continue supplying the products of its predecessor, or may be its predecessor's predecessor. Oil companies are risk averse and do not want to risk down-time in production in order to test some new product. However, once with a CMS, Subchem's personnel seek to change out its predecessor's products with its own and are often encouraged to do so by the oil company, who can realise significant savings and ward off compatibility problems if the majority of its chemicals in use is supplied by the CMS holder:

Account Manager: I mean that's...it's what my colleagues say "we're in business to sell chemicals and to replace our competitors' chemicals", so the way we think of it is, we take over an asset that's been looked after by a competitor we straight away want to ... try to substitute it with all of our chemicals which would hopefully, well, should, improve performance of the production.

When inside a CMS, Subchem's sales personnel's main ambition is to gradually change out competitor products with their own. Mark-ups on supplying competitor products may typically lie in the 3 to 5 percent range. If successfully changed out, Subchem can charge a 30 to 40 percent margin on their products (field notes).

The key account manager's task is therefore to persuade the chemical buyer and the oil field manager of the customer company to allow Subchem to test a new product. Oil field managers in particular are often risk averse. They work within their company's system of monitoring and rewarding performance, do not usually have a background in chemistry and tend to see new products as sources of risk unless there are clear problems manifesting themselves. If a client authorizes a test, Subchem has to demonstrate that its product has a significant price or quality advantage over the incumbent product. The typically five-year duration of the CMS contract gives the sales people a unique possibility to become intimately acquainted with a client's oil production system in place and to work dynamically with that system to achieve the best possible oil-chemical interaction. The co-location of sales personnel provides a significant advantage to the company holding the CMS as it can pitch new goods against the goods that are a legacy of past suppliers. This is an important feature of market shaping for production chemicals.

Thus, a surface examination of Subchem's CMS relationships may suggest that throughout the duration of the contract, the sales person's main task is to move from a tendering situation to an exclusive relationship, where a customer's connections with alternative goods are all but suppressed. However, a closer examination shows that being awarded a CMS as a result of a tendering process puts Subchem in a cooperative, as well as competitive, position to the other chemical suppliers, as this interview excerpt with a CMS customer demonstrates:

Buyer A: "And you touched on a little bit ... when you mentioned "why don't you use six companies?", in the good old days, if that's the right word, if there was a chemical issue, yes...what we don't have now because Subchem's supplying chemicals right through, is they can't say, "ah, it's that chemical that's interfering, it's that one, it's that company there", [but we can] say "sorry Mr Subchem you're supplying the whole range and you have to own this challenge", yes? It's not X's [competitor company] got this demulsifier and Subchem's got that de-oiler and Y got this scale inhibitor and which one's the bad guy and they're all going like that [gestures a shrug] and saying "no". So, now we have that lead chemical vendor they've got to say "hey it's our problem as well as obviously A's [customer] problem".

In this situation Subchem's key account manager effectively becomes the relationship manager for all of its customer's relationships with competing chemical companies. While continuing to be in a competitive position with chemicals companies X and Y, for instance, and with the ultimate aim of replacing their products when possible, Subchem is at the same time responsible for the successful deployment and interaction of these companies' products in the field. Non-market and market frames overlap in these instances.

There are more instances of the other market entities 'creeping' back into the buyer-seller relationship of a CMS contract. The market is also called upon if and when a customer feels that other chemicals companies may have superior products for a particular problem:

So customer A selected Subchem ahead of all others including its other CMS suppliers. An interesting facet of this was that Brian (senior sales manager) very early on in the interview and with some emphasis spoke of customer A going to the market. But when I sought to pick up on this, he was a bit surprised, seeing

this as a normal part of the business. Sure, most large oil companies have CMS arrangements, and also reserve the right to over-ride this for particular chemicals. (field notes).

Such situations often arise due to the dynamic nature of the oil wells. With new problems continually emerging, be they of technical or legislative nature, the sales person is continually challenged to improve upon the company's own products to thwart the threat of the customer 'going to market' in guise of consulting other producers and surveying their goods. Sales people are thus encouraged to reflect or create clusters of market entities of their own making through self-cannibalisation even in the seemingly most settled of relational interactions. If they are not seen to offer their customer the best solution to an emerging problem, the customer, despite the existence of the CMS contract, can call on other producers or accept a competing supplier's offer of a 'chemical challenge', which will be explored next.

4.3 "I challenge your chemistry"

A chemicals supplier has to become active across a wide number of market dimensions in order to retain some connection with those oil companies that it currently has no CMS with. Subchem's sales personnel continually sought to persuade oil companies to install its products as a third party supplier, or to retain its products in the face of change-out activities by the competitor who had been awarded the CMS. In this case, the sales person's ambition is to re-introduce its goods into the formally exclusive CMS relationship between a competing seller and the buyer by marshalling other market entities. While insider knowledge is not necessary available to Subchem in this situation, Subchem, along with its competitor companies, seek to retain relationships with the oil companies even outside of tendering times

and CMS contracts, keeping them informed of new products and services and campaigning for openings for what the industry calls "chemical challenges".

Chemical challenges can focus on price, availability, greener products or other commercial drivers. Because of the potential advantages of reintroducing the market into the CMS relationship, oil companies seem willing to accept chemical challenges within the limits of their risk tolerance. Risk perceptions can be militated against by Subchem's sales personnel interacting informally with the oil company's senior production chemists, and in the case of this industry there are many instances of non-market interactions between individuals. Professional and disciplinary bonds regarding the basic science in chemistry can overlay the strong commercial imperatives, and also be assisted through a strong track record during previous chemical challenges. Further, chemical challenges are usually refereed by one or two widely-regarded independent chemistry labs, which provide independent adjudications as to each product's characteristics and therefore act as important market mediators.

As a consequence, CMS contracts offer their holders very little protection in practice; sales people within a CMS have to make sure the change-out processes discussed above happen quickly and smoothly, lest competitors perceive a chance of challenging the process with their own chemicals. For CMS outsiders, a chemical challenge is a way of showing a minor difference in chemistry and show-casing the company's capabilities in logistics, adaptability, testing and adaptation, which may in future lead to increased business with that oil company:

Sales manager: This particular company who won the downhole contract, their lab work did stand scrutiny but actually in terms of performance in the field it basically did not come up to scratch, to the Subchem product that was in there previously to that. So over a period of time, on a well-by-well basis, customer A actually reinstated the Subchem products one-by-one, and as they reinstated and

showed superior performance, it gave them more confidence to implement them almost across the field. So I think from initially having none of the business, and then 50 percent, I think it is now something in the region of 75 percent, possibly.

In this case, 'the market' takes on an important function as a social organisation in connection with the CMS-based buyer-seller relationship. It is a threat that the oil customer can hang over the CMS holder to encourage them to improve performance or lower prices and it is a social organisation with conventions or, in Orlikowski's (2002) definition, recurrent actions that the members of this community recognise and observe (such as the procedure of the 'chemical challenge' that non-CMS holders can call upon). The main task of sales managers outside the CMS contract is to remind CMS participants of the existence of 'the market' and to continually de-stabilise the boundaries formally set by the CMS contract.

4.4 Creating markets serendipitously

A third way in which sales personnel in Subchem actively shape markets based on their knowledge-in-situ is mainly due to the dynamic regimes in which oil production typically takes place. While most of the product development happens as part of a change in the oil production conditions and is thus reactive, sales personnel can also be proactive and engage in innovative or quasi-innovative activities. One instance of such innovativeness has been witnessed in the case of Subchem, where the company has invested substantial resources to create a new means of administering chemicals sub-sea. Another area of innovation has been fuelled by environmental legislation, requiring many established oil production chemicals to be substituted with greener chemicals. In these instances, sales people often do important

boundary work with Subchem's technical group as well as negotiating new and thus instable boundaries with existing and potential clients, their own suppliers, industry and legislative bodies. As the following verbatim indicates, this is an area where markets are currently shaped by all participants involved:

The green corrosion inhibitor came out of a project to swap to environmentally friendly chemical solutions for customer B two years ago. It was the focal project driving a general concept of green corrosion inhibiting chemicals. The project has developed with customer B through Jeff [senior chemist] at B. Subchem people and Jeff at B meet frequently, say every three months, sharing data on testing and development, he comments and the project keeps moving. B will trial the product. Subchem has ten green products that have gone to customers although B is still evaluating. Others are though buying. This focal project has had spillovers into every other green project/products, some of which have already been sold to other customers [field notes].

Close cooperation with one customer, in this instance, has led to substantial market opportunities with other customers, and indeed to market creation. Interestingly, the customer at the source of this particular market has not formally entered the market yet but has acted as an important market catalyst.

5. Discussion

In this discussion section, we bring together the threads of our argument, as suggested in our literature review and then pursued through our case analysis. Our argument is that boundary spanning provides too narrow a template from which to understand the actions of sales

personnel because it implies that the sales/purchasing boundary intermediates directly between buying and selling organization and emphasizes the relational dimension of sales ahead of the material. However, by introducing the material dimension of exchanges, we recognize that sales and purchasing personnel relate to one another across their seemingly mutual boundaries in part through a sales or perhaps marketing object. In recognizing that relationships in sales include an object of that relationship, we recognize that boundaries can proliferate. As a consequence, we suggest that 'boundary spanning' is an unhelpful simplification of the roles and settings of sales personnel, which perpetuates an understanding that sales personnel can suppress markets by forming relationships with buyers.

Our analysis in the previous section indicates that sales personnel, buyers and users of combinations of services and products of production chemistry developed their relationships and at the same time developed and shaped markets. The three settings of CMS contracts, challenging another's chemistry and serendipity featured enduring relationships across many companies, with a cast of sales personnel who were all trying to persuade customers to adopt their combination of chemicals product and service. The initiatives introduced by Araujo, Kjellberg and Spencer (2008), deriving from market studies, actor-network theory and ethnomethodology, show that actors produce and shape, and reproduce and reshape, their objects in particular settings by making them visible, accountable and often in quite coarse terms, calculable. The proliferation of boundaries is chronic where, in this paper's case, sales personnel develop particular means of accounting, ranking or calculating while exchanging their sales or marketing objects.

Our general question of analysis is how objects become visible beyond the immediately relating parties of, for instance, Subchem's sales personnel and their counterparts at oil companies. A CMS indicates how a productions chemistry company combines its chemistry

and service in offering an object because it can combine its service, the established chemicals solution of another production chemistry company and also the imminent prospect of changing out this incumbent solution with its own superior offering. Subchem has little option but to become familiar with another's chemistry, just as other companies are supplying Subchem's solutions in other CMS contracts at other production sites. Similarly, if Subchem sales personnel instigate a process of trying to change out an incumbent chemicals solution for one of their own, the incumbent will find out about this. The CMS encourages an incoming contract holder to instigate incremental innovation, which is part of the market practices in this industry. Changing out attracts visibility. Reasons are proposed and given and explanations are sought by all parties during an attempted change-out.

A chemistry challenge is a rare event but also provides an instance of market practices in production chemistry. Even without the expectations of change-out created by a production chemicals company acquiring a CMS, chemicals companies can challenge one another's chemistry. This may look like 'cold calling', but the reputations of sales personnel and of their company are at stake so production chemists research their challenges thoroughly and devote lab time to these ventures as prospects and as speculations. Some sales personnel always work outside of the CMSs, keeping other oil companies up to date of new products and sounding them out for new opportunities. Chemicals challenges are audited by an independent lab, again making the different chemistry solutions, along with the rules of the competition, visible.

We describe as serendipity production chemistry companies' activities in relation to changing environmental legislation, especially of the OSPAR convention from 1992. One dimension of production chemistry companies' solutions becoming products is in being certified as complying with environmental legislation. Regulators are successively withdrawing approval

from some established products, where they have commissioned research and demonstrated that chemicals accumulate, for instance on the seabed. Oil companies face substitution orders to change-out particular products over a period of time. Again, environmental regulation makes chemistry solutions visible. Oil companies highlight existing substitution orders when offering CMSs, and production chemistry companies need to keep a watching brief on substitution orders as part of their CMSs.

In the above, we are careful to avoid presenting chemical solutions as objects in the form of marketing or sales objects. Even so, we show many boundaries, all of which have the effect of making some dimension of the chemicals solution more visible to a number of actors, including actual and potential customers as well as other production chemistry companies, regulators and independent labs. Production chemistry companies and their clients transform the chemistry solutions into offerings and sales and marketing objects by adding on dimensions of service, including the conditions of delivery, application, monitoring and testing. The dimensions of services are perhaps less visible beyond the sales relationship than the dimensions of the chemistry solution, but of course as an offering, as sales or marketing object, those dimensions of the chemistry solution are still present, implying and creating boundaries.

6. Conclusions

Our case – as with all case studies – is an unusual setting within which to study the activities of sales personnel, but it brings together materiality of oil and gas production and market practices that have emerged among production chemistry companies and oil companies in showing how multiple market practices are maintained simultaneously between buyers,

sellers, service companies and competitors. The case also isolates the performative role of sales personnel as these intersect the learning and understanding activities of, most directly, producer and buyer organizations. Unsurprisingly, things go wrong. Sales people can misjudge the capabilities and capacities of their own organization to develop new versions of products or to conduct tests in a given time. They may also misjudge the capabilities and capacities of customers to sanction tests.

Apart from things going wrong, the activities of sales personnel also revealed tensions within especially their own organization, because for instance requests for new versions of products are also challenges to the technical group. Sales personnel develop and act on and within a complex pattern of relationships with other companies as well as with their colleagues at Subchem, forming identities within and across these companies as well as within and across markets, and through their interactions contributing to shaping markets dynamically. In this paper, we aimed to highlight these market-shaping activities and encourage future research to explore this issue in greater detail.

We would also encourage further research on the issue of sales person identity; as Orlikowski (2002, 270) points out, "to the extent that knowing 'what the organization is' is enacted in practice, we might usefully begin to think about identity as an ongoing accomplishment, enacted and reinforced through situated practices." Rephrasing this statement in relation to knowing 'what the market is' as enacted in practice, future sales research should extend the ongoing research stream on boundary spanning to investigate multiple and simultaneous identities of sales personnel as market shapers.

References

Araujo, L. (2007) Markets, market-making and marketing, *Marketing Theory*, 7, 211-226.

Araujo, L., Dubois, A. and Gadde, L-E. (2003) The multiple boundaries of the firm, *Journal of Management Studies*, 40 (5), 1255-1277.

Araujo, L., Kjellberg, H. and Spencer, R. (2008) Market practices and forms: introduction to the special issue, *Marketing Theory*, 8 (5), 5-14.

Beunza, D., Hardie, I. and MacKenzie, D. (2006) A price is a social thing: Towards a material sociology of arbitrage, *Organization Studies*, 27, 721-745.

Buehrer, R.E., Semecal, S. and Bolman Pullins, E. (2005) Sales force technology usage – reasons, barriers and support: An exploratory investigation, *Industrial Marketing Management*, 34, 389-398.

Callon, M. (1998) Introduction: The embeddedness of economic markets in economics, in M. Callon (ed.) *The Laws of the Markets*. Oxford: Sociological Review and Blackwell Publishers, pp. 1-57.

Callon, M. Méadel, C. and Rabeharisoa, V. (2002) The economy of qualities, *Economy and Society*, 31 (2), 194–217.

Callon, M. (2005) Why virtualism paves the way to political impotence. A reply to Daniel Miller's critique of the laws of the markets, *Economic Sociology European Electronic Newsletter*, 6(2), 3-20 (http://econsoc.mpifg.de/newsletter/newsletter_archive.asp).

Christiaanse, E. (1994) Information as a strategic asset in interfirm relationships: "IT and the informated boundary spanner", *System Sciences*, 4, 610-620.

Cochoy, F. (2008) Calculation, qualculation, calqulation: shopping cart arithmetic, equipped cognition and the clustered consumer, *Marketing Theory*, 8 (1), 15-44.

Easton, G. (1995) Methodology in industrial networks, In K. Möller and D. Wilson (eds), *Business Marketing: An Interaction and Network Perspective*, pp. 411-492.

Eisenhardt, K.M. (1989) Building theories from case study research, *Academy of Management Review*, 16, 620-627.

Eisenhardt, K.M. and Graebner, M.E. (2007) Theory building from cases: Opportunities and challenges, *Academy of Management Journal* 50, 1, 25-32.

Garfinkel, H. (1967) Studies in Ethnomethodology, Prentice-Hall, Englewood Cliffs, NJ.

Garfinkel, H. (2002) Ethnomethodology's Program. Working Out Durkheim's Aphorism, Rowman and Littlefield, Lanham, Maryland.

Guenzi, P. (2002) Sales force activities and customer trust, *Journal of Marketing Management*, 18 (7-8), 749-778.

Guenzi, P., Pardo, C. and Georges, L. (2007) Relational selling strategy and key account managers' relational behaviours: An exploratory study, *Industrial Marketing Management*, 36, 121-133.

Harris, E.G., Mowen, J.C. and Brown, T.J. (2005) Re-examining salesperson goal orientations: Personality influencers, customer orientation, and work satisfaction, *Journal of the Academy of Management Science*, 33(1), 19-35.

Jones, E., Chonko, L. and Roberts, J.A. (2004) Sales force obsolescence: perceptions from sales and marketing executives of individual, organizational and environmental factors, *Industrial Marketing Management*, 33, 439-456.

Kjellberg, H. and Helgesson, C-F. (2006) Multiple versions of markets: Multiplicity and performativity in market practice, *Industrial Marketing Management*, 35(7), 839-855.

Kjellberg, H. and Helgesson, C-F. (2007) On the nature of markets and their practices, *Marketing Theory*, 7, 137-162.

Levina, N. and Vaast, E. (2005) The emergence of boundary spanning competence in practice: implications for implementation and use of information systems. *MIS Quarterly*, 29 (2), 335-363.

Liu, S.S. and Comer, L.B. (2007) Salespeople as information gatherers: Associated success factors, *Industrial Marketing Management*, 36, 565-574.

MacKenzie, D. and Millo, Y. (2003) Constructing a market, performing theory: The historical sociology of a financial derivatives exchange, *American Journal of Sociology*, 109 (1), 107–45

Matsuo, M. (2006) Customer orientation, conflict, and innovativeness in Japanese sales departments. *Journal of Business Research*, 59, 242-250.

Miller, D. (2005) A reply to Callon, *Economic Sociology European Electronic Newsletter*, 6(3), 3-13 (http://econsoc.mpifg.de/newsletter/newsletter_archive.asp).

Miller, D. (2002) Turning Callon the right way up, *Economy and Society*, 31(2), 218-233.

Muniesa, F. Millo, Y. and Callon, M. (2007) An introduction to market devices. In *Market Devices*, edited by M. Callon, Y. Millo and F. Muniesa, Blackwell, Malden, MA, pp. 1-13.

Orlikowski, W.J. (2002) Knowing in practice: Enacting a collective capability in distributed organizing, *Organization Science*, 13 (3), 249-273.

Rinallo, D. and Golfetto, F. (2006) Representing markets: The shaping of fashion trends by French and Italian fabric companies, *Industrial Marketing Management*, 35(7), 856-869.

Siggelkow, N. (2007) Persuasion with case studies, *Academy of Management Journal* 50, 1, 20-24.

Turley, D. and Geiger, S. (2006) Exploring salesperson learning in the client relationship nexus, *European Journal of Marketing*, 40(5/6), 662-681.

Weick, K.E. (2007) The generative properties of richness, *Academy of Management Journal*, 50, 1, 14-19.

Yin, R.K. (1994) Case Study Research: Design and Methods (2nd Edition), Sage, Newbury Park.