The Management of Customer Portfolios;
The Paradoxes of Extensive and Intensive Prescriptions

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ABSTRACT
In this paper we analyse not only traditional, planning level, customer portfolio prescriptions but also those at the strategic and operational levels, as well as the relationships among them. The Critical Realist concepts of extensive and intensive modes of analysis, which typify current prescriptive practices at the strategic and planning levels, and intensive modes of action, which typify actions at the operational level, are used to explore the tension between these two forms. Ways in which these two tensions may be reconciled in principle are discussed and exemplified in practice using case based data.

Key Words; Customer portfolio management, Critical Realism, Prescriptive models.

INTRODUCTION
Customer portfolios as a network issue have long intrigued academics researching in the IMP tradition. It is one of the key areas in which normative modes of research have been strongest. Fundamentally the objective of customer portfolio literature has been to try to tackle the very real problems associated with reconciling competing customer needs.

In this paper we argue that traditional customer portfolio models, while useful, are understandably limited in that they deal with prescriptive issues of the middle range. They largely ignore their possible relationships with the more and less aggregated levels of decision making that we term, for want of better descriptions, strategic customer portfolio management and operational customer portfolio management.

Accordingly we see formal portfolio models as embedded in broader organizational and inter-organizational tensions concerning strategising, and planning (and the analyses that underpin them) and the actual day to day operational management of customer portfolios. We therefore propose to use the term customer portfolio management in the broadest possible sense to cover the actions within B2B organisations that impinge upon customer portfolio decisions.
While we do not suggest that a complete system of customer portfolio management can be prescribed we wish to draw attention to what we think are some key links between these levels that have major practical implications. To demonstrate one of these interactions we draw on a case study of an attempt by a senior manager to impose customer portfolio rules on a UK subsidiary. As a result we identify 3 modes of reconciliation that could exist and discuss their characteristics.

From this broader perspective, we suggest that current prescriptive customer portfolio models should, and in practice generally do, play a more limited role among other forces that together generate what we see as largely emergent customer portfolio outcomes. Based on this framing of portfolio management, we elaborate upon the related tensions and interaction observed between what we call “extensive” and “intensive” portfolio practices. In this dichotomy, extensive portfolio practices correspond largely with much of the current customer portfolio literature, in so far as the portfolio models are based on analysis of event regularities, which may result in mathematical algorithms or taxonomic categories.

Yet, at the same time, we see the foundation of customer portfolio management, as mainly located, at the operational level, in “intensive portfolio practices”, which concern the management of unique situational challenges, hence requiring domain specific managerial judgments. As a result, contradictions will tend to emerge from the inter-linkages imposed upon prescriptive intensive and extensive portfolio analysis, e.g. in the prescriptive use of customer portfolio models.

The paper begins by problematising the current prescriptive use of portfolio models by establishing their position in the broader context of overall customer portfolio management. In this broader context, we evaluate the nature of portfolio analyses and the resulting decisions that need to be made at the strategic, planning and operational level. As a result, we identify key constraints which make the use of extensive portfolio models in decision-making, at any of these levels, problematic. Since all of the more aggregated forms of prescription are, at best logically and pragmatically limited, they create major tensions at the operational level with which they have to be reconciled on a day to day basis. These tensions are then further elaborated in the empirical section of the paper. We deploy a critical realist framework in our data analysis, which is used to examine in detail how the tensions between intensive and extensive portfolio practices emerge, and how these tensions can be to some extent synthesized away or alternatively reconciled. In particular, we see the real life portfolio management as a mixture of these models of synthesis and reconciliation, which all together will tend to produce highly emergence in portfolio outcomes.

**PRESCRIPTIVE CUSTOMER PORTFOLIO MANAGEMENT**

The Role of Customer Portfolio Management in B2B Markets
Most B2B (and B2R2C) markets are highly concentrated and becoming more so. As a result, the effect of changes in the behaviour of a few customers may be crucial to the organisation concerned. However what we argue is that any normative model of B2B customer portfolio management must operate in such a way that it takes into account the ways in which it affects and is affected by other operational levels and types of management in the organisation. If it does not then it may well result in worse organisational performance rather than better.

In what follows we distinguish, not entirely arbitrarily, 3 different levels and types of customer portfolio management, each with its own function. At the same time, we describe in each case a utopian prescriptive framework for making customer portfolio decisions and point out the main reasons why such prescriptions will not work in practice.

**Strategic Customer Portfolio Management**

Strategic customer portfolio management, a necessary neologism, should link customer portfolio management to the objectives and strategies of the whole organisation. An important first question to ask is “what exactly are the objectives of a customer portfolio analysis?” A simple answer might be; to make decisions about the portfolio in order to achieve the firm’s goals and objectives of which survival would be primary. Survival, in turn, depends on both short and long term profits but both of these are subject, firstly, to other internal cultural and norm driven constraints, especially attitude to risk, as well as, external environmental constraints including physical, technological, societal and cultural norms.

We argue that, in principle it is important to distinguish strategic customer portfolio management decisions that are influenced by, or influence, long term strategic considerations. For example a firm may decide to trade off short term for long term profits. Such decisions will be made with little data and involve many assumptions but are necessary if investments (of any and all kinds) are to be made now for future success.

An organisation’s overall strategy is expected to provide guidelines for all aspects of the business. Decisions to enter or leave markets, develop new products or services while dropping others, or adopting new or abandoning existing operational technologies are all examples of strategic decisions that might be made. There are a number of models for strategy prescription but the one that is most relevant in this case involves matching the firm’s resources to possible future environments, the Resource Based View of the firm [e.g. Rumelt, 1984; e.g. Wernerfelt, 1984]. What is interesting in the case of customer portfolios is that they can involve at least four important strategic implications for enacted such a model.

- The first is that customers constitute one of the most important future environments and understanding and predicting its future is clearly crucial to the survival of the organisation.
- The second is that the existing customer relationships, however weak, provide a clear link to that environment and a mechanism through which environmental matching might take place.
The third is that, paradoxically, while such relationships exist “outside” the organisation they are, in effect, part of its set of resources and / or capabilities. As such a strategy, to be successful must leverage them and can do so in a variety of ways (Mota and Castro (2005)). Three of the most important are that they provide, in principle, a solid base for the continuation of sales, a source of new knowledge and activity, and a conduit through which to access new customer bases.

The fourth involves network position. For example setting up a direct web based sales operation would offer a significant, and probably unwelcome, network position signal to members of the existing distribution channel.

However such analyses should not avoid tackling perhaps the most crucial strategic and tactical issue concerning customer portfolios; the relationships between customers in the portfolio. There are two particular concerns; risk and synergy. Financial portfolio analyses centre on the relationship between risk and return [Markowitz, 1952; Sharpe, 1963]. The same should be true customer portfolios. The risks can, in theory, be assessed in terms of the concentration of customers of particular types such that external conditions could affect them all in the same way [Hopkinson and Yu, 2002]. The most obvious of these would be customers’ customers’ markets [ibid] but they could also include customers who rely on the same production inputs (e.g. oil) or use the same technologies (e.g. electrical as opposed to electronic). Assessing how balanced a customer portfolio is would be essential in order to get any sense of its portfolio risk.

Synergies mean the interaction between customers in a portfolio such that the overall effect, mainly on sales / profits (but it could also be on some strategic surrogates such as market entry or operational efficiency) is greater or less than the sum of their individual effects. For example two or more customers could be supplied using the same sales force or their pattern of demand could complement each other such that they smoothed out seasonal patterns in operations.

The output of these processes would provide, at the very least, a set of guidelines which might help customer portfolio decisions to be made in a sensible way. What is important is that such decisions might run counter to short run goals, for example, a currently non profitable customer is given priority because it provides a link into a new and desirable market.

However such strategic customer portfolio analyses are clearly very difficult to carry out in practice. In addition linking them to the overall firm strategy would be hugely complex. That is not to say that some of the issues described above are not recognised or discussed, nor that the general messages of the strategy are not heeded (e.g. we need to take more risks in this business in future). They are, but not necessarily in a systematic or coherent manner or through formal processes. They often emerge over time stimulated, by among other things, the requirements of individual customers in their current customer portfolio.
Customer portfolio planning

We define customer portfolio planning as those decisions that are based on data concerning the current customer portfolio, having a relatively short time horizon and the output of which can be most readily and quickly applied. In this situation there is more chance of predicting the effect that various customer portfolio decisions might have. However again it is worth stepping back and asking what is the ideal model that we would want to create. In our view it is the set of decisions (or more likely decision rules) that would determine how a particular customer needs to be treated in the next planning period in order to extract the maximum profit. The concentration on profit at this stage should, in theory, be subject to other strategic considerations which have already been determined. As pointed out previously it is unlikely that this will be done in any systematic way but that does not mean that perceived strategic priorities are ignored.

There has been a rather large amount of IMP based research, and also research from other paradigms, that have focused on what we have termed customer portfolio planning, for example [Cunningham and Homse, 1982; Fiocca, 1982; Yorke, 1984; Shapiro et al., 1987; Turnbull, 1990; Krapfel et al., 1991; Yorke and Droussiotis, 1994; Turnbull et al., 1996; Turnbull and Zolkiewski, 1997; Zolkiewski and Turnbull, 2000; Fraytag and Mols, 2001; Ryals, 2001; Hopkinson and Yu, 2002; Leek et al., 2002; Zolkiewski and Turnbull, 2002; Dhar and Glazer, 2003; Eilles et al., 2003; Johnson and Selnes, 2004].

In general such work has attempted to derive methods by which firms can analyse their existing portfolios with a view to increasing profit but most have stopped short of being able to do so as a result of lack of the required data or because the link to profitability has been too tenuous to justify. Also other decisions such as the deletion of unprofitable customers, the acquisition of profitable ones, and targeting switchable customers should also be included in the analysis [Gensch, 1984] but usually isn’t. Early attempts involved simply categorising existing customers in terms of sets of taxonomic variables whose relationship to profitability seems plausible. Others used customer strategies as the connection to profitability [Krapfel et al 1991]. Where existing profit by customer can has been calculated it is largely assumed that this allows the evaluation of the portfolio since this pattern of profitability will continue into the future.

However there remain a number of problems with these approaches. Clearly the link to firm strategy is one but there are others. We start our proposed prescription at this level by suggesting that each major customer should be treated as a market and smaller customers should be grouped into market segments. This is often what happens in practice, if by default. Many firms have such a concentration of customer sales that they have to behave in this way to survive. Therefore, in theory, the way to proceed is to go through a marketing planning process although one that should be modified by virtue of the fact the markets we are mainly discussing are “single customer” markets.
Profit is determined by the difference between sales and costs. Profit is often calculated according to financial accounting practices where overheads are “allocated” arbitrarily according to some formula. However since overheads will exist whether there are hundreds of customers or none they are, in cost terms, irrelevant to the decision about how we treat customers, at least in the short term. Therefore in this analysis the costs need to be variable, out of pocket costs or “costs to serve” [Shapiro et al, 1987], if an economically sensible decision is to be made. The profit then becomes contribution; a “contribution” to overheads. The contribution will be determined by the sales value and the variable costs. One of the key problems is that for many firms there is difficulty in forecasting variable costs and assigning them to a specific customer especially if the customer buys a wide range of products or services.

This contribution calculation however normally assumes that the sales value and the associated costs are in a fixed relationship. A more sensible approach is to model the effect of both price and resource levels, such as salespersons time consumed, to see if better (though never optimum) profits can be evaluated. For example would a higher price and greater volume result if technical service was increased? What would happen if next day delivery could be guaranteed? Such simulations would be enormously helpful and managers are usually quite good at giving rough estimates of the effects of various changes to marketing strategy especially when KAM systems are in place and the customers are very well understood.

However a key problem in this case is that some resources are more fixed than others. If the analysis showed that increasing resources might actually lead to higher profits this assumes that the total resource base can be adjusted. While it might be possible to hire new salespeople or outsource some technical services, albeit with time lags and a high risk factor, there are some aspects of a firm’s operation that only increase in major increments or whose impact on the process is difficult to estimate (e.g. top management’s time and machine loadings).

The output from such a process, which would again be very difficult to achieve, could comprise a plan for each major customer and each segment together with the appropriate resource allocations. In practice the closest most firms get to this stage is to create a priority ranking for each customer which may vary by resource but often does not.

**Operational Customer Portfolio Management**

Given ideal customer marketing planning how is the plan to be implemented? Clearly with great deal of difficulty. A crucial point is that the plan may indicate overall resource allocations but those have to be scheduled through time. The link between resource use and its customer impact is rather complex. For example if delivery is a key variable the requisite resources will be factory equipment, labour, stocks etc. If several key customers want a large slice of a particular resource, at the same time, then one or more of them will be disappointed. It would be of little use to explain to a customer that they can have “their resource” at another time when it would most likely be of little use to them.
In a similar way many of a firm’s processes are linked in time and sequenced. This means that if the sequence is changed to accommodate a more important customer, resource is wasted. Equally important is the fact that nothing even turns out as forecast. Customers will come and go and their requirements won’t be what they said they would be and certainly not when they said they would want them. Also, while firms need to solve these kinds of problems they also have to take advantage of opportunities. It would be senseless not to do so. But of course these are not, by definition, part of the plan. Finally, management resources, from the shop floor to the boardroom, would have to be well coordinated and of high quality to be able to manage this process. Typically things do more or less work out in firms but they normally do so by virtue of the (expensive) slack that exists within them and the capacity of the organisation to adapt, adopt and improve. However they do so at the cost of failing, though not necessarily massively, to keep to the marketing plan in the face of all these exigencies.

OBSERVED CUSTOMER PORTFOLIO PRACTICES

Analytical Framework

In our empirical analysis of observed customer portfolio practices, we deploy a critical realist theoretical framework. According to critical realist ontology, commonly associated with the writing of Roy Bhaskar [1979; 1989], (social) objects cannot exist in their current form without other objects. For example a slave cannot exist without a master [Sayer, 1992]. Obviously, relationships concerning slavery are not just based on a linguistic tautology, but these relationships are “real” in the sense that their causal powers and liabilities profoundly change the ways in which people can behave. As a result, the master and the slave are objects which are internally related, forming a structure [ibid]. Similarly, other (social) objects and also practices can form structures, creating new kinds of causal powers and liabilities. For example, a buyer cannot exist without a seller, thus forming business relationship structures, which have led to the manifestation of a wide variety of emergent causal powers and liabilities researched by the IMP Group. As an example of emergent properties in customer portfolio management, Mota and Castro [2005] described a case where the development and maintaining of technical skills were dependent on specific kinds of customer portfolio practices. Thus, in critical realist terms, these skills were an emergent property of specific structures formed and elaborated through customer portfolio practices. In general, the internal relations related to relationship portfolios are a source of both useful and adverse causal properties that influence the way firms can operate. And, as the internal relations are a source of context-dependent causal properties, they tend to require context-specific portfolio practices to be effectively reproduced or elaborated.

“In so far as many actions are context-dependent they involve internal relations...” [Sayer, 1992: 90].

It is often the case in structural analysis that objects first assumed to be externally related, are through a more detailed analysis revealed to be internally related. And to be specific, social objects in particular tend to form
many internal relations with other objects, which is generally not the case with natural objects. Thus, the key to successful structural analysis of social objects is to be precise about the specific aspect in which an object is internally related with other objects [Sayer, 1992]. It is not uncommon for social objects to simultaneously belong to multiplicity of different structures, in various different aspects of the objects.

“In the social world most relationships are internal... It is quite wrong if we adopt a philosophical position or a practical position which assumes that the relationships between things are going to be external.” [Bhaskar, 2006]

INTENSIVE AND EXTENSIVE PORTFOLIO PRACTICE

Recognizing the importance of internal relations in customer relationship portfolio management, we see the ground-state of real life customer portfolio management as centred on the handling of unique situational challenges. We call this ground-state of portfolio management intensive portfolio analysis and management. To elaborate, intensive portfolio practice is based, in effect, on the unique nature of causality found in specific (focal network) situations. As a result, intensive analysis may not yield representative, average, or generalisable explanations. In critical realist terminology, intensive analysis seeks to explain in detail the unique nature of interdependencies, and particularly the qualities of structures that give rise to emergent causal powers and liabilities [Sayer, 1992].

Also, in intensive portfolio management, managerial judgment is required to recognize (or to abstract) the essential meanings of concrete portfolio situations. This means that managerial expertise in intensive portfolio management does not normally involve simple rules, models, or mathematical algorithms, but instead relies on expertise by means of recognition-primed, largely tacit cognitive processes [e.g. Dreyfus, 1982; Klein, 1999]. For example, experienced industrial marketers have been shown to use mental simulation nested in recognition primed-decision processes to quickly comprehend the significance of complex focal network situations [Vanharanta and Easton, forthcoming]. Also, in our observations, experienced managers were instinctively evaluating the strategic, tactical, and operational significance of portfolio situations, generating portfolio actions that aimed to align goals from all these different levels of analysis.

Yet, at the same time, the current literature on customer portfolio management has tended to pay little attention to the qualities of intensive portfolio management, with the rare exception of certain critiques of relationship portfolio models [Ritter, 2000; Dubois and Pedersen, 2002; Mota and Castro, 2005]. Instead, the main focus in relationship portfolio literature has been on the creation of generalisable and scalable management prescriptions, as opposed to the management of unique situational qualities. In our treatment of portfolio literature we call these taxonomic portfolio models and mathematical algorithms, “extensive” portfolio management analysis, as they are necessarily based on, or assume, event regularities.
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<th>Management questions</th>
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<td>How does a particular practice work in a specific portfolio, or in a small number of portfolios?</td>
<td>How are the regularities, common patterns, or distinguishing features in a portfolio or population of portfolios? How widely are certain characteristics or processes distributed or presented?</td>
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<th>Types of explanations produced</th>
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<td>Causal explanation of the production of certain portfolio related objects or events, though not necessarily representative ones</td>
<td>Descriptive representative generalizations, lacking in explanatory penetration</td>
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<th>Intensive portfolio practice</th>
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<td>Domain specific, and largely tacit managerial experience formed through years handling specific kinds of relationships, in a specific industry</td>
<td>Domain free skills of statistical and accounting based analysis, computer simulations, questionnaires, standardized interviews and surveys of a population</td>
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<th>Limitations</th>
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<td>Actual concrete patterns and contingent relations are unlikely to be ‘representative’, ‘average’ or generalizable. Necessary relations discovered will exist wherever their relations are present, e.g. causal powers of objects are generalizable to other contexts as they are necessary features of these objects</td>
<td>Although representative of a whole population, they are unlikely to be generalizable to other populations at different times and places. Problem of ecological fallacy in making inferences about individuals. Limited explanatory power.</td>
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**Figure 1.** Intensive and extensive portfolio practice, applied to customer portfolio management from [Sayer, 1992: 243].

The main point we wish to make here concerns the tensions between the intensive ground state of the day to day portfolio management, that takes into consideration the context dependent internal relations (including the heterogeneous network context), and the extensive portfolio prescriptions that are designed to leverage benefits from event regularities. We see this tension also to some degree evident in the critique of portfolio models [Ritter, 2000; Dubois and Pedersen, 2002; Mota and Castro, 2005].

**MODELS OF SYNTHESIS**

Using a critical realist analytical lens, we deduce 3 different models to synthesize these tensions. Figure 2, based on Sayer (1992) provides a critical realist overview of the relationships among the levels and structures which distinguish between intensive and extensive modes of analysis.
Extensive portfolio analysis

Intensive portfolio analysis

Models of synthesizing extensive and intensive practices

**Figure 2.** The proposed models of synthesis, applying the illustration from Sayer [1992: 237].

**Descriptive Models of Synthesis**
The first two models of syntheses can be described as descriptive in nature and involve bringing extensive analysis (e.g. relationship portfolio models) to bear upon the context-dependent nature of relationship portfolios.

One way to achieve this is to limit the role of extensive analysis in portfolio models solely to the description of events, i.e. not to be used to ascribe causality. This requires managers to be mindful not to associate event regularities with causality, particularly as portfolio analysis takes place in the social world, laden with context-dependent internal relations. As a result, in our first model of synthesis, extensive portfolio analysis is seen as a descriptive tool that highlights unexpected contrasts in data, which may later on lead to an intensive causal explanations [cf. contrast explanation: Lawson, 2003]. Hence, any discoveries from extensive analysis are followed up by intensive analysis to describe how various emergent causal powers and liabilities assert causal influences in the
specific relationship / portfolio context. As the intensive analysis of causal powers and liabilities concern not just actualities but also possibilities, this model of reconciliation avoids some of the main criticisms of portfolio models.

In the second descriptive model, extensive and intensive practices are synthesized based on the realization that while all customer relationships in an industrial network are unique, they may also share structural similarities. To elaborate, just as all men / women are unique, married men / women have the structure of marriage as a common quality. Similarly, by understanding structural similarities in various customer relationships some common tendencies may emerge across customer relationships, which may allow for the use of similar management practices, e.g. limited sharing of best practice.

It is important to note, however, that even if customers may have structural similarities, they will at the same time be embedded in a multiplicity of dissimilar structures. Accordingly, events resulting from the conjoint functioning of multiple underlying causal powers and liabilities are likely to have irregular qualities. Knowledge of structural similarities needs, therefore, to be combined with situational judgments that take into consideration also other situational sources of causality.

While, this second model of synthesis may at first resemble the taxonomic portfolio models, a more careful analysis reveals important differences. In portfolio models taxonomic groups are most often based on observed events regularities, not structural qualities or their emergent causal powers and liabilities. For example, when portfolio models are making references to the profitability of customer relationships, this typically refers to accounting based event-regularities instead an abstraction of a relevant structure or causal power causing profitability. Thus, should a taxonomic portfolio model be used to group together customers with similar profitability event-regularities, these events may have been caused by different causal forces and liabilities.

**Prescriptive Syntheses**

Our third model, what we describe as “prescriptive synthesis”, rests upon the unlikely theoretical possibility that, for some period of time, under exceptional network circumstances, event regularity based taxonomic relationship groups, and similarly derived mathematical algorithms could be directly linked to corresponding causal powers and liabilities. Such instances would temporarily bring extensive and intensive analysis and management closer together without a need to reconcile their contradictory qualities. This would be most likely to happen in relationship portfolios which have very low levels of qualitative dispersion [Sayer, 1992: 250], and highly regular exchange events. In such exceptional situations, one could freely engage in an extensive portfolio practice. Yet, at the same time intensive analysis would still be required to establish the absence of essential context-dependent sources of causality.
EMPIRICAL ANALYSES
Case Study Research
Our empirical observations were made in 3 firms of radically different size, ranging from a small family run precision engineering firm, to a large international industrial conglomerate. We observed managers handling CPM challenges in the field settings. Typically a key manager was followed in his daily activities. In making our field observations, a digital recorder was used, recording all together 573 sound files. These sound files were then coded using HyperResearch software. The codes developed became the bases for the highly grounded use of the field data. Also, general corporate material, such as emails, meeting memoranda, policy statements, and marketing material were used as secondary sources of data. Based on these initial observations and analyses, explanations were developed based upon the existing bodies of the organizational, and industrial marketing literatures, and the philosophy of critical realism. This analysis was further followed by additional empirical field observations to clarify the nature of our findings, and to confirm our conclusions. In order, to gain further clarity and to deepen our understanding of specific issues that emerged from the earlier analysis, 16 additional semi-structured interviews were conducted with the managers involved.

Analyses of Case Data
In the cases studied, intensive portfolio practices tended to always form the ground-state of portfolio management. However, in the smallest case study firm intensive practices received virtually no support from extensive portfolio analysis. In this firm most of the firm’s customer portfolio affairs were personally managed by the firm’s entrepreneur-CEO. As a result, the portfolio management capability was restricted by the limits of the bounded rationality and time restrictions of just one man. And with no support from extensive portfolio analysis, the firm’s portfolio management lacked key financial performance measurements that larger firms often take for granted.

At the same time little in the way of extensive sales discipline was imposed upon these intensive practices which tended to encourage highly emergent and responsive portfolio strategies, often associated with high levels of risk taking. For example, the CEO could make quick situational trade-off decisions based on his intuition concerning trade-off decisions between customers, short-term and long-term customer profit objectives, customer satisfaction vs. machine capacity utilization rates, customer profitability and investment in new skills. Also, the CEO used his situational judgments of current customer sentiments to dynamically exploit customer good-will to gain additional operational slack. Overall, being a central operational role in the firm, the CEO’s portfolio practices tended to instinctively align operational concerns, portfolio planning, and the larger strategic objectives in the daily management activities.

While the larger firms studied had an increased capability to support intensive portfolio practices with extensive analysis, still in many sales functions intensive portfolio practices this occurred only rarely. These intensive portfolio practices were however periodically interrupted by concentrated periods of more formal analysis to evaluate if the intensive
portfolio strategy had generated acceptable portfolio outcomes, for example in relation to firms’ accounting cycles and sales performance targets.

Sales person: “What normally happens is I work my visit around the enquiries from customers, where a particular customer needs my service... I will go to that area and work in the area, other than that I just have a nose for.... pick and choose where I am coming. It works out pretty well. Most customers get 3 or 4 visits a year. My boss does not have an opinion, I report to him every week, tick boxes, he puts it in a data base.

Researcher: “There is someone in the main office calculating customer profitability. Do you get any feedback from that?

Sales person: “No, I didn’t even know it was being done. I give my budgeted figures at the start of every year, and my boss takes a look at them (rises) some figures. I try to reach what ever I am given, year in year out but it is difficult... It is just an aggregate figure.... My predecessor left because he was not reaching his targets.”

At the same time, with increasing firm size, extensive portfolio analysis was observed to provide one of the very few means to communicate portfolio information on a global scale. This was perceived as useful in the task of centrally monitoring, controlling and leading global developments from a geographically remote divisional headquarters.

Headquarter manager responsible for extensive portfolio analysis: “These are very nice analyses actually. And from one market you take analysis by product. You see that this same product that we are selling in this market... with this customer with this product this seems to be an acceptable price level here. But for some reason we have made one or two very lousy deals here. And usually these deals are from various operations. The customer has several operations so they don’t talk to each other. Now the worry is that these guys (customer's buyers) get together in the company Christmas party and talk.... It is a huge amount of number crunching when we are analysing sales activities, including profitability by sales person, but also we are dividing market segments: large customers, medium size, small customers, how is our performance? Then we have customers by name, what is the profitability of this customer to us? And then down to nano-detail, these were the different equipment-services we sold to this customers last year, based on the volume and profitability. And that is going to tell us, go after that.... The cost to serve of that customer is so high that we don’t need that customer. It is better that our competition takes care of that customer. When you have enough data, and numbers are crunched to the nano-detail you start to understand, you put a nice graph on the table. How in hell is this possible for the same customer?

However, in addition to simply using extensive analysis to describe portfolio events in accordance with descriptive models of synthesis, the extensive insights were also seen as a management tool to prescribe discipline in sales and customer portfolio practices. In support of these prescriptive practices, Turnbull [1990] has seen the disciplinary function as the central utility of customer portfolio models.
Manager in charge of extensive portfolio analysis: “I am currently in charge of a... development program....Sales Management / Sales Discipline... It seems to be that all the other business processes, manufacturing, procure-to-pay, or what ever part of the core process of the company, those have pretty much been streamlined. You have all kinds of key performance indicators to show that today at 2 o’clock things did not go according to process and plan. But in the sales management it has been very difficult. And it is pretty much because the sales management is weak. It is the old sales guy that was lifted up to that position. So he knows what the life is like in the wilderness... I am a firm believer in well defined documented processes and working according to the processes.”

From the perspective of our theoretical framework, however, to impose portfolio discipline on already ongoing intensive portfolio practices is less than straight forward. Difficulties emerge because the extensive analysis is, necessarily, blind to the specific situational context, i.e. the unique internal relations of focal net objects. Hence, to reduce tensions in implementation, extensive insights would need to be brought back to their context of reference. This could be done in accordance with our descriptive models of synthesis, i.e. by not prescribing extensive portfolio actions, but by limiting the use of extensive insights to their descriptive use. If extensive portfolio actions are still prescribed, the contradiction could be reduced if the prescriptions were made more conducive to the conditions of the prescriptive synthesis, outlined above. However, as social situations seldom correspond with prescriptive synthesis, we see the emergence contradictions as particularly relevant to the application of relationship portfolio models.

In the following examples, we look at the extensive sales discipline in the context of globally standardized service procedures. From the local perspective of the intensive portfolio management, such constraints in the product offering were seen as an obstacle to serving the unique regional demands of the customer base. Yet from the de-contextualized extensive perspective, the globally standardized sales practices were seen as an important means to reduce general administrative cost and risks in the firm’s current sales function.

Local manager in charge of intensive portfolio practices: “Before... we were just taking our products to the market place and said this is what you need... don’t wash anymore in this market place. You got to deliver specific drivers to that specific customer... and we can deliver and create products in that market place. To me that is bang on where we need to be... to develop products around their specific drivers. We listen to customers demands... to gather intelligence from the customer and bring that feedback into this organization... and the technical department and the customer service element rallies around that intelligence to be able to create products specific to customers... What do you want from us? Do you want us to come to see you every month? What do you want us to do with your sites?”

Manager in charge of extensive portfolio practices: “The problem with that is that... these contracts are engineered by the customer.... In order for a service to be a sellable product it needs to have a name, specification, some kind of proof or guarantee and price. But the challenge here is that... with you I make a contract like this. It takes 3-4-5 days from the management
team to put that contract together. Next week I will start to talk with you, totally different kind of deal. But in your case, once again, and you can see when you know the numbers in this country you can see that there is a very heavy SGA cost related to services in this country...sales and general administrative cost. Now you make 20 contracts which are all different here. How are you going to manage them? What we have tried to do on this business is to make global contracts. In that sense that, not contracts but standard service products. This is the product. There is a well thought process behind... we have put the very best brains of this company and collected the information from all over the world to come up with this. It has a name, it has a price, it has been tested it has been proven. The risks are very minimal. We don't want to do stupid things here.’

While these positions at first appear to be diametrically opposed to each other, by deepening analysis beyond event regularities, and by understanding the nature of the underlying causal powers and internal relations, some common ground becomes apparent. Again our descriptive models of synthesis can be used to find a way forward. By using the analytical lens of the second descriptive model of synthesis, the intensive manager has correctly recognized that all customers are unique, but this does not lead to an absence of similarities. To be more specific, the question that needs to be answered concerns the similar causal powers and liabilities, and internal relations between objects. Accordingly, if essential commonalities in portfolio management are understood at this level, some standardization in product offering becomes advisable. And, if this standardization is built upon underlying causal powers and liabilities, not event regularities, this allows a more robust means to navigate the open system interaction in the customer interface. This analysis, however, needs to be done at the local domain specific intensive level. By gradually working upwards, eventually global level structural similarities may later be discovered. At the same time, according to our first model of synthesis, extensive analysis may be used to guide managerial attention by identifying surprising event regularities or their absence, i.e. contrast explanations. Naturally, the costs of working upwards involving situations where there exist essential and unique product / service qualities may prove prohibitively high. Yet the real costs of implementing standardized products that poorly fit local customer demands may prove also prove prohibitively expensive.

In another example of customer portfolio management, we can identify all of our three models of synthesis playing a limited role, by being embedded in a portfolio models implementation process. In this instance, a portfolio model used had a close similarity with the Shapiro et al model (see figure 3), and the model was being applied to the firm’s regional customer portfolio management practices.

Manager responsible for extensive portfolio management: “Let's say for example regional sales office X.... As we went through the numbers we realized that last year they had 486 buying customers. In the next analysis we analyzed that 40 of these customers brought in 80% of the sales turnover. We added the customer number to 100 it was already 90% of the sales turnover. Then we divided customer to four groups. We segmented customers to four groups depending on the buying behaviour. In our calculations we were getting close to knowing profitability per each
customer. In these segments, segment A had 40 customers and segment B 60 customers. Segment C bought from us spare but not wear parts. And segment D bought from us only when they could not get parts from anywhere else. Then we started analyzing the other way round each of these segments. How much time are we spending with each of these 4 segments? And we realized that we were spending a lot of time to help segments C and D. So first of all how do we begin to improve the customer specific profitability in segments C and D? We went through this analysis with the people who were working in the front line with customers. They personally worked through the numbers... And through work shops we were able to explain to the front line staff that the way things were... It is an unbelievable amount of number crunching that is required to before the front line staff recognizes that this is the way things are.... These calculations are from our databases and our numbers. And now what do we do about this. So as practical solutions we informed segments C and D that we are improving our services. We have added a specific telephone advice line as one of these new services. And it has a price. So when you contact us we are going to charge for these phone calls.”

While this may at first seem as a straight forward case of an extensive model being imposed upon intensive portfolio practice, importantly, because of the local involvement this can be also be seen to have allowed greater synthesis between extensive and intensive perspectives. To begin with, through local participation, the current intensive portfolio practices were made more aware of specific kinds of extensive portfolio insights. As a result, in this first step in the implementation process, we find a resemblance with our first descriptive model of synthesis. In addition, because of the local involvement, there was at least a possibility to incorporate essential intensive causal tendencies as the basis for the way the taxonomic customer groups were formed. This would have thus led to a partial correspondence with our second descriptive synthesis. In the end, when the extensive portfolio logic was imposed upon the local portfolio practices, we see the local participation in steps one and two, at least potentially having had the effect of bringing the model closer to our prescriptive synthesis between intensive and extensive portfolio practices.
Figure 3. Shapiro et al [1987: 104] portfolio model to “manage customer for profits (not just for sales)”

However, despite best efforts, some degree of misfit would inevitably occur when extensive sales disciplines are imposed upon the intensive practices. In particular, in these situations it was often the lower level managers who were left with the task of finding ways to cope with the extensive rules and procedures, while at the same time trying to get their work done in the intensive level in the open system conditions of the customer interface. In these situations, we observed these tensions to be reconciled in three different ways. Firstly, managers were occasionally able to argue for exceptions to the extensive discipline imposed upon them, to allow for situational goals being met.

*Capital equipment sales person came to see his boss:* ‘You are not going to like this, but we are going to make this deal with only x% margin, But we are going to get the margin back because in this application it is going to consume this much consumables, and based on this and this. Here is my brief calculation about how much money we are going to get from that profit levels for the next five years.’

Secondly, while feeling frustrated, managers were at times observed to simply abandon their own situational judgment and to more or less blindly follow the general sales discipline rules. As a result, in these situations, the internally imposed event regularities materialized, but questions can be asked about the soundness of the actual portfolio outcomes. For example, by following prescriptive portfolio models designed to allow for predictable and profitable resource allocations to the right customers, this by no means guarantees predictable and profitable portfolio outcomes in the dynamic focal net interaction.

The third observed way to reconcile these tensions was to find innovative solutions “outside the box” that temporarily accommodated both situational intensive demands the extensive sales discipline rules. For example, in the following example, intensive customer needs, and extensive logistical rules,
were reconciled through purchases of pirated copies of the focal suppliers' own spare parts from its competitors:

**Regional spare and wear part sales officer:** “My role responsibilities are related to handling spare parts and wear parts. That means that we never have it in stock, they are never available, the quality is not very good and we are too expensive. Those are the three things we hear from customers all the time. The logistics managers of course do not want any to have any part in stock. They want it to arrive just in time to deliver to the customer, because they have been told to reduce stock, and I want to keep it up. So we have some conflicts. It is a nightmare. Logistics have been given strict parameters, the stock is based on the turnover of the company. The higher the turnover the more we keep stock. We need to appreciate the business, we got to be careful here... A lot of it... the contradictions relate to the availability of the parts, we cannot keep it all here... there are too many parts to the machines. The factories also do not keep all the parts... The parts come in from contractors to build the machines. So they won’t have everything at stock. And when the customer rings, we don’t have it, factory does not have it. With some of the older machines I have contractors that can make it for me, because I have the drawings. The newer machines, we don’t have the drawings. So we cannot make it. But our competitors the ‘pirates’ have most of our parts, because they bought our (original) parts, measure them, and draw them. I sometimes have to buy from the pirates... Every week we are buying something. The strange things is of course, we can probably buy it cheaper from the pirates then we can buy it from our own factory. Most times quality is very good. We don’t like doing it. We try not doing it. The factory of course does not like it. They have to charge higher prices because they need money for investment and R&D... The pirates have everything made in China and India where it is cheaper. We paint (the pirate parts) in our colours. But is it is all about keeping a customer happy.... I give you an example, this morning at 10:30, service manager comes in and says we are doing a service at such and such place, one of the pieces is missing. We can see that the piece was taken from the shelf, they put it in the parcel, the freight forwarding company has come in and picked the parcel up, it has gone to the site. and a piece is missing. The customer is now very angry, because his machine is not working... we have to make a decision... our engineer is at the site... they cannot finish anything... the customer cannot work... we have to do something... really I should say to the freight forwarding company they have lost a piece, but they have taken 2 days to answer me... Mean while the customer is angry. We have to provide the service. We have to think of the customer so we make a decision... If the engineers go back tomorrow we have to cancel tomorrows work, then another customer, if they work there at Monday, it is an other customer and so on... “

**DISCUSSION AND CONCLUSIONS**

Based on our analysis of case data we have summarized our model of the reconciliation possibilities in figure 4 below.
Figure 4. The emergence of customer portfolio outcomes as a process of continuous cycles of interaction between intensive and extensive portfolio practices, where each cycle of interaction can be synthesized or reconciled in 5 different ways.

To sum up, we conjecture the "being" of customer portfolio management as an emergent outcome largely beyond the control of, though not unaffected by, organizational elites. This emergence can be seen as subject to continuous cycles of interaction between intensive and extensive portfolio practices, in accordance with the illustration in figure 4. As a result, we see relationship portfolio management as having emergent strategy qualities, irrespective of best managerial attempts to impose “extensive” portfolio discipline. For example, in the observed cases organizational top down attempts to impose event regularity through disciplined sales practices was not a guarantee of predictable or desirable event regularities in relationship portfolio outcomes. As a result of rule following sales discipline, managers were at times required to abandon their managerial situational judgments, which again generated unforeseen and often adverse consequences. This is related to the difficulties in achieving what we have described as the prescriptive synthesis in the open system of business relationship management. Also, the descriptive models of synthesis, by definition, allowed for a great deal of situational judgment to be exercised.

Having said this, the way portfolio decision-making powers are given to different managers in organizations, can be seen to shift the emphasis between the descriptive and prescriptive synthesis, and the three other modes of reconciling contradictions. While this would again not provide any direct control over customer portfolio outcomes, a way forward may be found
from understanding how organizational structures and routines indirectly affect the ways managerial / organizational experience is translated into customer portfolio decision-making.

We would however want offer up the caveat that conditions favouring regularity can occur and then the application of extensive prescriptions are more likely to reduce the tensions than what is noted above. For example, externally, if there are a large number of relatively small customers buying a more or less standard product or service then one might expect certain empirical regularities to occur. Also, internally, if resources are relatively standard and easily controlled and manipulated, as is the case with logistics or wholesaling, and customer directed activities can be tightly controlled, as in web or call centre based marketing systems, then that too might lead to less tensions between the strategic, planning and operational levels in a firm.

Our final, more general, point is that we have tried to draw attention to an issue that has not been fully appreciated in IMP research although its shadow falls across much of the work we do. It is the tension between the prescriptive and the descriptive. Much IMP research is descriptive, the word being used here in the best possible sense, and captures the everyday nature of B2B relationships and networks. A small amount is prescriptive and understandably tentative for reasons which should be only too clear from what we have discussed previously. Very little indeed attempts to understand the role that prescriptions of all kinds, by and for the actors we study, affects their behaviour. We make the usual call to suggest others help us to rectify this situation.

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