



The strategic IS (information system) management

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Abstract

Until 1993, ENERGY had been operating in a stable fashion, with little change in strategic orientation, organization structure, or corporate philosophy. It was historically very successful. It had been following a *Defender* strategy, maintaining its territory through low costs but not seeking opportunities for growth. However, the energy industry was becoming increasingly competitive, partly due to protracted low prices of crude oil and natural gas in the late 1980s and early 1990s. Projected future prices also showed no significant increase. ENERGY had a mechanistic and centralized structure based on what several interviewees called a ‘command and control’ model

As with other Defenders (Delery and Doty, 1996), there was an unwritten contract with the employees. They were expected to be loyal and work hard, while ENERGY promised a good salary, excellent benefits, and lifetime employment. However, the employees were constrained, or as one interviewee put it, ‘mushroom capped’ – that is, ENERGY exerted a paternalistic control over the employees, managing the employees’ careers for them in terms of job assignments, training, and advancement.

During this period, IS management was highly centralized, with a central IS group serving the various business areas. The IS group played a nonstrategic role, supporting the business areas but doing so from a technological focus rather than a business-oriented one. They were perceived as telling business people how to do things rather than listening to their needs.

Revolutionary period

The primary risk with a Defender business strategy is the inability to respond to major market shifts (Miles *et al.*, 1978). ENERGY also suffered from this problem. It had a tendency to reinvent the wheel,¹¹ and also failed to respond to increasing competition. Continued success had seemingly led to a complacent, inward-looking, and inflexible corporate culture. ENERGY’s financial performance in the early 1990s was therefore disappointing relative to other energy firms.

A new president and CEO, Paul Hill, was hired in April 1993. He discarded traditional solutions to ENERGY’s problems, insisting instead on a corporate transformation. He commissioned a thorough evaluation of the company’s mission, structure, and direction. The company’s business strategy shifted toward *Analyzer* with greater attention to the market conditions and efforts to identify growth opportunities. In February 1994, Hill and four executive vice presidents mandated a major shift in corporate philosophy from a centralized ‘command and control’ structure, which was considered unsuitable for rapid market changes, to what they called ‘federal governance’ (a customer support manager).¹² Shifting the business structure toward a *semistructured and hybrid* form, decisions were moved to the lowest hierarchical level at which the necessary information was available. ENERGY departed from a *de facto* policy of life-long employment toward transient employment.¹³

On 1 January 1995, each subsidiary became an independent entity with individual profit and loss responsibility. Top management of ENERGY was performed by a leadership council, and a larger leadership group which included senior executives from the various subsidiaries. Similarly, each subsidiary’s leadership group and council included one or more representatives from ENERGY.

One of the subsidiaries, SUBSID, employed about 1800 people, including approximately 800 in the IS group.¹⁴ Its mission was to provide a variety of

corporate services, including IS, not only to ENERGY subsidiaries, but also on the open market to other organizations not related to ENERGY (including other firms in the energy industry). SUBSID had an existing revenue base in excess of \$300 million, mainly from other ENERGY subsidiaries. Its board included the CEO and three other senior executives from ENERGY, but not the heads of the other business units (to avoid conflict of interest). Moreover, SUBSID's CEO was one of the 14 members of ENERGY's leadership council. SUBSID's corporate siblings were free to look outside for IS services. IS accountability and decision making were pushed into the business units, and a CIO was appointed for each unit. The IS management structure for ENERGY was thus decentralized. The shift in IS structure was accompanied by increased recognition of the importance of IS, and a shift toward a combination of *low-cost and growth* IS strategy. ENERGY was seeking to reduce business and IS costs through efficiencies expected from market competition. In addition, it expected external revenue from SUBSID. SUBSID's corporate siblings continued to have some influence on SUBSID as its valued customers, as well as through ENERGY's top executives who were members of SUBSID's board.

Evolutionary period 2

Following the major upheaval, the subsidiaries settled down to fine-tune internal structures and strategies. SUBSID's senior executives spent nine months assessing strengths, weaknesses, market, and competition, completing the strategic plan in September 1995. SUBSID initially started with a *Prospector* strategy, seeking to get external business in a creative fashion. It sought business not only from IS development but also from selling surplus IS capacity and IS-related infrastructure. Its internal information systems, and superior IS skills, including advantages in subsurface information technology and infrastructure processing, were seen as potentially key in *differentiating* SUBSID from its competitors and enabling *growth* of its business. The September 1995 strategic plan led to a change in SUBSID's structure, from centralized cost-centers to a matrix structure including 21 lines of businesses. The semi-structured/hybrid business structure was aligned with SUBSID's new *Prospector* business strategy, emphasizing revenue growth and customer satisfaction.

SUBSID created the position of manager (Business Development) to pursue external contracts, made a customer support manager responsible for each of the ENERGY customers, and appointed a CIO for its internal systems. IS management within SUBSID was done in a centralized fashion by the CIO, who was responsible for deciding about the systems to be used by SUBSID's lines of businesses. The internal systems were also generally centralized.

SUBSID's strengths included industry knowledge and the ability to do oil and gas accounting at about half the industry cost. However, several factors offset these strengths. SUBSID was now competing for both existing and new business with large competitors, possessing strong deal-making and relationship-building skills, eager to get a foothold in the energy industry. Therefore, SUBSID started hiring commissioned salespersons for the first time in company history. However, established attitudes at SUBSID posed another problem; its personnel had to make a transition from viewing their ENERGY customers as a captive audience to treating them as free-market customers. Finally, SUBSID had no track record in the external market, and no list of references. The other major energy companies would also hesitate to do business with SUBSID due to the fear that this may help a competitor (i.e., ENERGY) through additional revenues and potential access to sensitive data.

Free to go elsewhere for IS services, ENERGY's other business units started investigating such possibilities. Based on the confidence that it could be very competitive with other service providers, at least in the energy industry, SUBSID viewed this as both an obstacle and an opportunity. The search for an external vendor led to a better appreciation of the value of SUBSID, and also enhanced SUBSID's credibility with other subsidiaries of ENERGY. Their assessments of SUBSID's performance improved as well, going up by five percentage points in 1997 in terms of overall satisfaction level.

The obstacles encountered in seeking external contracts, along with the difficulties other subsidiaries of ENERGY faced when they sought external vendors, led to a shift in SUBSID's strategy toward *Analyzer*. Instead of pursuing a Prospector strategy through increased external business, SUBSID now focused mainly on internal (within ENERGY or within its global parent company) customers. To pursue external opportunities, it decided to look for a strategic alliance with an IS vendor. Moreover, rather than trying to provide all kinds of IS-related solutions, SUBSID focused on systems development and delivery. In May 1997, SUBSID obtained a \$100 million project from another ENERGY subsidiary. SUBSID was conducting this project along with an external vendor. In addition to the business from the ENERGY companies, SUBSID obtained several external projects, ranging from \$100,000 to over five million dollars. Its revenues for 1996 were about \$350 million, and \$430 million in 1997.

When we last visited SUBSID in April 1998, it had continued its postrevolutionary changes along three basic lines. The biggest change had been the merger of SUBSID, based in United States, with other similar subsidiaries of ENERGY's global parent to form a single IS and business services subsidiary supporting all the business units of the global company. SUBSID was still pursuing an Analyzer business strategy, although its market

focus had continued to shift somewhat from providing services to the general energy industry towards gaining a larger share of ENERGY's parent company's business. While SUBSID would continue to seek new opportunities outside its global parent, it planned to be less aggressive until it had explored all the internal opportunities for new business.

The second post-revolutionary change involved further consolidation of SUBSID's lines of business, first from 21 to 13 and then to four. The organizational structure continued to be semistructured/hybrid but had evolved into a three-dimensional matrix based on SUBSID lines of business, geographical regions, and the business units of ENERGY's global parent.

The third post-revolutionary initiative was a continuation of the search for acquiring new business skills related to marketing and relationship management, but with a slight twist. Although SUBSID was still hiring individuals with specific expertise in these areas, it was also exploring potential strategic partnerships to enhance its competencies and market attractiveness. For example, it was discussing a possible joint venture or partnership with a consulting firm for a wide range of services to the energy industry. It also had a continuing relationship with another consulting firm for building a knowledge base designed to capture the skills and competencies related to marketing its services to external customers. To oversee these partnerships, SUBSID had created a new executive position responsible for 'Strategic Relation Planning' on the same level as the CFO and CIO, reporting directly to the CEO.

Despite these changes, the underlying principle remained the same: Anything SUBSID did would be under the free-market umbrella. If it could not compete with the other service providers on a level playing field, or better opportunities surfaced elsewhere, the deal would not be completed.

Conclusions

The strategic IS management profile during the initial evolutionary period had a high level of overall alignment although IS was considered nonstrategic. While ENERGY enjoyed good short-term IS performance, its business performance was deteriorating, apparently due to ENERGY's failure to react to the changing environment (reduced prices, increased competition).

A new CEO and a consultant's report provided further impetus for the revolution in which all four dimensions were changed, but alignment was maintained at a high level. At that time, a subsidiary focusing primarily on IS, SUBSID, was created. The initial strategic IS management profile of SUBSID had medium overall alignment. SUBSID's Prospector business strategy was not well aligned with the other dimensions, and it therefore was no surprise that over the next several months, SUBSID encountered problems in pursuing this strategy. Recognizing its limitations in seeking external growth, SUBSID

underwent postrevolutionary changes. Its business strategy changed to Analyzer, which was better suited to the other three dimensions. Consequently, the overall alignment became high. Short-term business performance seemed to have improved as a result of this revolution by redesign.

Discussion

This research has used a punctuated equilibrium model to examine the dynamics of alignment. Three case studies were used to better understand the way in which alignment evolves through modifications to an existing alignment pattern, punctuated by periodic transitions to an altogether different pattern of alignment. As discussed below, our results integrate prior literature and provide some new insights for organization science in general and for strategic IS management in particular.

Evolutionary periods and resolution without redesign

Each case had long periods of no change in the strategic IS management profile. Prior literature (e.g., Miles and Snow, 1996) suggests that these evolutionary periods are characterized by a high level of alignment. We did find the evolutionary period to have a high level of alignment at ENERGY, but low overall alignment at LEASE. The overall alignment was medium at DIVFIN, although all the misalignments concerned IS strategy. Thus, the research conforms to the punctuated equilibrium model, but differs in suggesting that the long evolutionary periods may sometimes have *low* alignment. The evolutionary periods at both DIVFIN and LEASE had misalignments which were apparently resolved without redesign, as both companies' top executives believed that IS was not strategic and so it did not need to be aligned with business.

Reluctance toward resolution by redesign

Our cases reveal a reluctance in organizations to make revolutionary changes through which all or most of the dimensions of the strategic IS management profile are modified. At ENERGY, the consultant and managers initially commissioned to suggest strategic changes proposed a structure that was simply an improved version of the previous structure. Following this tentative change, ENERGY did undergo a complete revolution, but only due to the strong stance taken by the new CEO. Similarly, at LEASE, the pressure from the lender banks caused a revolution. However, it followed some initial hiccups, and a change in the CEO. The second revolution at LEASE encountered less hesitation than the first, but it was essentially a step back toward the strategic profile that had existed prior to the first revolution. The

reluctance to make revolutionary changes was also evident at DIVFIN. A consulting firm's report initiated thinking about alternative ways of improving performance, but DIVFIN took time to identify ways of doing so. Moreover, it first looked for a vendor that was similar to itself, and quite reluctantly entered into a partnership with a culturally different vendor.

Thus, the research suggests that occasional revolutionary changes in the deep structure (e.g., the strategic IS profile) may significantly help organizations in the long run, but such revolutions too may be inhibited by cultural or structural inertia (Tushman and O'Reilly 1996). Consequently, organizations sometimes change some dimensions of the deep structure, but not the remaining dimensions.

Revolutionary changes and resolution by redesign

All three cases suggest that evolutions are punctuated by revolutionary changes in the strategic IS profile. Each company made revolutionary changes to transform the alignment pattern that had continued for a long time. ENERGY and LEASE underwent complete revolutions, wherein all four dimensions were changed, whereas DIVFIN underwent an incomplete revolution as three dimensions were changed. This finding is consistent with the basic punctuated equilibrium model. Through evolutionary changes, managers incrementally alter strategies and structures to constrain the level of misalignment. However, 'sooner or later, discontinuities upset the congruence that has been a part of the organization's success' (Tushman and O'Reilly, 1996, p. 12).

Consistent with the reluctance to make revolutionary changes, we found all the revolutions to require some combination of five strong triggers – environmental shifts, sustained low performance, influential outsiders, new leadership, and perception transformation. At ENERGY, the strategic IS management profile during the initial evolutionary period had a high level of alignment. This profile had served ENERGY well for some time, but a new profile was needed when competition increased and prices declined. At LEASE, the initial strategic IS management profile was continued despite the low alignment, due to the belief that IS was not important. However, when the environment shifted with the new tax laws and changing economics of the IS industry, LEASE had to modify its strategic IS profile. All three cases indicated that alignment profiles may also be radically altered when the business or functional (IS in this case) performance deteriorates. For example, when faced with bankruptcy and the stringent controls enforced by the banks, LEASE quickly made large-scale changes in Revolution 1. As suggested by Gersick (1991, p. 27), the presence of influential outsiders also seemed to motivate revolutions. In all three cases, the revolutions were triggered by the actions of external agencies – the establishment and use of direct controls by

the lending banks at LEASE, the consulting firm's report and the entry of international firms into the Australian market at DIVFIN, and the consulting firm's report at ENERGY. Moreover, the potency of these influential outsiders is amplified by changes in leadership (including a new CEO), which played a critical role in the revolutions at LEASE and ENERGY.

The above four factors – environmental shifts, sustained low performance, influential outsiders, and new leadership – have previously been discussed as possible triggers of revolutions (Haveman, 1992). However, we found another trigger, perceptual transformation, which does not seem to have been discussed earlier. We found revolutions to be triggered by significant changes in the perceptions concerning IS (at LEASE in both revolutions as well as at DIVFIN) or the organization's skills in a certain area (e.g., the lack of deal-making skills at SUBSID). It is possible that we discovered this trigger because we examined alignment across an overall business domain and a specific area (i.e., IS).

Possible ineffectiveness of resolution by redesign

It has been argued that if a low level of alignment, or conflict in the alignment profile, is responsible for the poor performance, organizations would seek to resolve this conflict by redesign (Gresov, 1989). As discussed above, we also found that resolution by redesign is used to resolve such conflict. However, we found that the resolution by redesign may or may not be effective. At DIVFIN, the revolution did not increase overall alignment; it increased some types of alignment but reduced others. At ENERGY, the alignment within the strategic IS profile was high both before and after the revolution, although the revolution did change all four dimensions of the profile. Finally, the first revolution at LEASE increased alignment considerably, but the second revolution undid the changes and led to low alignment. Thus, the resolution by redesign in revolutions may not lead to an increase in overall alignment, and sometimes may even reduce it.

Post-revolutionary changes

Because revolutions sometimes reduce alignment, they may be followed by further adjustments in alignment patterns. At DIVFIN, structural alignment decreased after the revolution, as the business structure had remained decentralized but IS management became centralized. This caused problems in implementing the outsourcing relationship. Consequently, the management of the relationship was re-decentralized (this increased structural alignment). At SUBSID, the overall alignment in postrevolution strategic IS management profile was medium. This was addressed by shifting business strategy to Analyzer and focusing on corporate siblings, while also seeking external

revenues. No change to the strategic IS management profile was made at LEASE during the evolutionary period following the first revolution. However, shortly after the first revolution had produced the desired improvements, the second revolution caused the strategic IS profile to revert almost entirely (all three aspects except IS structure) to the profile before the first revolution.

Thus, this chapter suggests that revolutions may be followed by post-revolution adjustments to the strategic IS management profiles, either to reinforce them or to take a step back toward the pre-revolution situation. A revolution may take the organization too far in another direction, and the new alignment pattern may be inappropriate for its competencies, causing the organization to seek new competencies and further modify the alignment pattern. In some other cases, the revolution may not go far enough, and the changed strategic IS profile may be low in one or more kinds of alignment. This may cause the organization to further fine-tune the alignment pattern, possibly by reverting somewhat toward the prerevolution situation. Such post-revolution adjustments are consistent with Sastry's (1997) suggestion that trial periods, similar to our postrevolution adjustments, follow revolutions.

The above observations should be viewed in the light of the study's limitations, which restrict its generalizability. First, the chapter is limited due to the use of a small number of cases. The findings are based on only three companies, although they are of different sizes and from different industries. Second, the cases were studied retrospectively. The interviews were conducted during one to three visits at fairly close points in time, but our focus was on changes that occurred over long time periods. Third, although we collected the data using key informants at each organization, a wider set of informants may have provided additional insights. For example, only one non-IS executive was interviewed at DIVFIN. We also could not interview some important executives who were no longer at these companies.

The chapter has several implications for future research in the broad area of organization science. First, the approach of viewing alignment in conjunction with punctuated equilibrium models should be valuable in future research. Research on dynamics of alignment in other areas may similarly consider an alignment profile (involving strategy and structure of the overall business and a functional area) as the deep structure that undergoes evolutionary and revolutionary changes (Gersick, 1991).

Second, our use of Gresov's (1989) work on conflict among multiple contingencies should also be of interest to researchers in other aspects of organizations. This chapter has shown the value of Gresov's resolution by redesign and resolution without redesign approaches for viewing alignment in the long run. These approaches may also explain two deviations we found from prior research (e.g., Miles and Snow, 1996); unlike prior research we

found that: (a) the evolutionary period may or may not be characterized by a high level of alignment; and (b) the revolutionary change does not always increase alignment. The use of resolution without redesign during evolutions could explain why some companies continue for a long time with what appears, at least to outsiders, as a low level of alignment. The use of resolution by redesign might explain why revolutionary changes do not increase alignment; it might reduce alignment among some dimensions and thereby offset increase in alignment among other dimensions. Further research on punctuated equilibrium models in other areas is needed to examine how resolution without redesign can help sustain low alignment in the absence of substantial performance degradation. Further research is also needed to examine the conditions that influence whether alignment will increase or decrease as a result of revolutions.

Third, we found strategic and structural changes during the revolution to be reinforced or offset by postrevolutionary changes. Such postrevolutionary changes have not been examined in prior field research. Further research is needed to validate or refine our classification of periods of changes in alignment profiles into evolutions, incomplete or complete revolutions, and postrevolutionary changes. Additional case studies examining changes in alignment profiles should help in doing so.

Finally, we found that revolutions may be triggered by a number of factors, one of which – perception transformation – has received little attention earlier. Studies of punctuated equilibrium models in other areas (e.g., research and development) may examine if substantial changes in perceptions about the importance of that area may similarly trigger revolutionary changes. Additional cases should also examine other causes that may trigger revolutionary changes.

This chapter also makes some potentially important contributions to the literature on strategic IS management by taking a dynamic, holistic, and theory-based view of alignment. Our examination of the changes over time in three cases is an initial step in making the transition from the earlier static view of alignment toward understanding the dynamics of alignment. By examining the cases individually and in comparison to each other in the light of a punctuated equilibrium model, the chapter provides insights into the ways in which alignment may possibly increase or decrease over time. Future research in this area should empirically test these findings, using additional cases as well as multistage surveys.

This chapter also contributes to the strategic IS literature by providing a more holistic view of strategic IS management. The strategic IS management profile included business and IS strategy and structure, unlike prior studies which have focused on only two of the four dimensions, such as business and IS strategy (e.g., Chan *et al.*, 1997) or business and IS structure (e.g., Fiedler *et al.*, 1996).

This study also differs from the prior work on IS alignment in its use of a deductive, theory-based view of alignment. Future studies of alignment in strategic IS management and other areas may benefit from a similar use of prior theory to identify the ideal alignment patterns. This approach, which has rarely been used in IS research (Jarvenpaa and Ives, 1993; Brown and Magill, 1998), is an attractive alternative to the more popular approach of empirically generating the ideal alignment patterns (e.g., Sabherwal and Kirs, 1994) because it allows replication and fosters cumulative research.

In conclusion, the study has attempted to advance our understanding of the dynamics of alignment. It suggests that claims about performance effects of alignment should be couched in explicitly longitudinal terms because the same alignment pattern may not be effective over extended periods. Based on the application of the punctuated equilibrium model to the three cases, the chapter suggests that the changes in alignment are, for the most part, small and evolutionary. These changes may prevent catastrophes by controlling misalignments, but they inhibit moving to an altogether different pattern of alignment. Therefore, managers should periodically scrutinize their organizations' IS alignment patterns, lest these patterns mask symptoms of future failure. Revolutionary changes in the strategic IS management profiles may be necessary to move the organization to a path that offers a greater performance potential, rather than continuing on the previous path by simply fine-tuning strategies and structures. Moreover, managers making revolutionary changes in their 'deep structures' should be prepared to fine-tune them even after (and especially, soon after) the revolution.

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Notes

- 1 Miles and Snow (1978) also described a fourth type of organization (Reactor), but considered it to be one that either lacks a viable strategy or is in transition from one of the three ideal strategies to another. Miles and Snow (1996) excluded Reactors in more recent descriptions of the typology. We therefore excluded Reactors, as was done in most empirical studies using this typology (e.g., Delery and Doty, 1996).
- 2 Miles *et al.* (1978) identify three broad types of problems (entrepreneurial, engineering, administrative) faced by organizations, and solving the

References

- Aaker J. Dimensions of brand personality. *Journal of Marketing Research* 1997;24:347–56.
- Andreassen TW. Antecedents to satisfaction with service recovery. *European Journal of Marketing* 2000;34(1/2):156–75.
- Bagozzi RP, Gopinath M, Nyer PU. The role of emotions in marketing. *Journal of the Academy of Marketing Science* 1999;27(2):184–206.
- Bhandari MS, Tsarenko Y, Polonsk MJ. A proposed multi-dimensional approach to evaluating service recovery. *Journal of Services Marketing* 2007;21(3):174–85.
- Bitner MJ. Evaluating service encounters: the effects of physical surroundings and employee responses. *Journal of Marketing* 1990;54:69–82.
- Blodgett JG, Hill D, Tax S. The effects of distributive, procedural and interactional justice on postcomplaint behavior. *Journal of Retailing* 1997;73(2):185–210.
- Brockner J, Weisenfeld BM. An integrative framework for explaining reactions to decisions: Interactive effects of outcomes and procedures. *Psychological Bulletin* 1996;120:189–208.
- Brown SP, Leigh TW. A new look at psychological climate and its relationship to job involvement, effort, and performance. *Journal of Applied Psychology* 1996;81(4):358–68.
- Chebat JC, Slusarczyk W. How emotions mediate the effect of perceived justice on loyalty in service recovery situations: an empirical study. *Journal of Business Research* 2005;58:664–73.
- Clemmer EC, Schneider B. Fair service, advances in services marketing and management, vol. 5. Greenwich, Connecticut: JAI Press Inc.; 1996. p. 109–26.
- Davidow M. The bottom line impact of organizational responses to customer complaints. *Journal of Hospitality and Tourism Research* 2000;24(4):473–90.
- Davidow M. Have you heard the word? the effect of word of mouth on perceived justice, satisfaction and repurchase intentions following complaint handling. *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior* 2003;16:67–80.
- Folger R, Konovsky A. Effects of procedural and distributive justice on reactions to pay raise decisions. *Academy of Management Journal* 1989;32(1):115–30.
- Harris KE, Grewal D, Mohr LA, Bernhardt KL. Consumer responses to service recovery strategies: the moderating role of online versus offline environment. *Journal of Business Research* 2006;59:425–31.
- Hartline MD, Ferrell OC. The management of customer-contact service employees an empirical investigation. *Journal of Marketing* 1996;60:52–70.
- Homburg C, Fürst A. How organizational complaint handling drives customer loyalty: an analysis of the mechanistic and the organic approach. *Journal of Marketing* 2005;69:95–114 (July).
- IDATE DigiWorld. 2007; www.enter.es/informes_enter/documentos_enter_idate/digi-world/enter_4_1.html.
- Jones MA, Reynolds KE, Mothersbaugh DL, Beatty SE. The positive and negative effects of switching costs on relational outcomes. *Journal of Service Research* 2007;9(4):335–55.
- Karatepe OM. Consumer complaints and organizational responses: the effects of complainants' perceptions of justice on satisfaction and loyalty. *International Journal of Hospitality and Management* 2006;25:69–90.
- Kau AK, Loh EWY. The effects of service recovery on consumer satisfaction: a comparison between complaints and non-complaints. *Journal of Service Marketing* 2006;20(2):101–11.
- Kelley SW, Davis MA. Antecedents to customer expectations for service recovery. *Journal of the Academy of Marketing Science* 1994;22:52–61.
- Konovsky MA. Understanding procedural justice and its impact on business organizations. *Journal of Management* 2000;26(3):489–511.
- Lee J, Lee J, Feick L. The impact of switching costs on the customer satisfaction-loyalty link: mobile phone service in France. *Journal of Services Marketing* 2001;15(1):35–48.
- Martinez-Tur V, Peiró JM, Ramos J, Moliner C. Justice perceptions as predictors of customer satisfaction: the impact of distributive, procedural and interactional justice. *Journal of Applied Social Psychology* 2006;36(1):100–19.
- Mattila A. The effectiveness of service recovery in a multi-industry setting. *Journal of Services Marketing* 2001;15(7):583–96.
- Mattila A, Wirtz J. The role of preconsumption affect in post-purchase evaluation of services. *Psychology & Marketing* 2000;17(7):587–605.
- Maxham JG. Service recovery's influence on consumer satisfaction, positive word-of-mouth, and purchase intentions. *Journal of Business Research* 2001;54:11–24.
- Maxham III JG, Netemeyer RG. Modeling customer perceptions of complaint handling over time: the effects of perceived justice on satisfaction and intent. *Journal of Retailing* 2002;78(4):239–52.
- Maxham III JG, Netemeyer RG. Firms reap what they sow: the effects of shared values and perceived organizational justice on customers' evaluations of complaint handling. *Journal of Marketing* 2003;67:46–62 (January).
- McColl-Kennedy JR, Sparks BA. Application of fairness theory to service failures and service recovery. *Journal of Service Research* 2003;5:251–66 (February).
- McFarlin DB, Sweeney PD. Distributive and procedural justice as predictors of satisfaction with personal and organisational outcomes. *Academy of Management Journal* 1992;35(3):626–37.
- Menon K, Dubé L. Service provider responses to anxious and angry customers: different challenges, different payoffs. *Journal of Retailing* 2004;80(3):229–37.
- Milas G, Mlačić B. Brand personality and human personality: findings from ratings of familiar Croatian brand. *Journal of Business Research* 2007;60:620–6.
- Oliver RL, Swan JE. Consumer perceptions of interpersonal equity and satisfaction in transactions: a field survey approach. *Journal of Marketing* 1989a;53:21–35.
- Oliver RL, Swan JE. Equity and disconfirmation perceptions as influences on merchant and product satisfaction. *Journal of Consumer Research* 1989b;16:372–83.
- Pathak DS, Kucukarslan S, Segal R. Explaining patient satisfaction/dissatisfaction in high blood pressure prescription drug market: an application of equity theory and disconfirmation paradigm. *Journal of Consumer Satisfaction, Dissatisfaction, and Complaining Behavior* 1994;7:53–73.
- Patterson P, Cowley E, Prasongsukarn K. Service failure recovery: the moderating impact of individual-level cultural value orientation on perceptions of justice. *International Journal of Research in Marketing* 2006;23(3):263–77.
- Patterson PG, Johnson LW, Spreng RA. Modeling the determinants of customer satisfaction for business-to-business professional services. *Journal of the Academy of Marketing Science* 1997;25:4–17.
- Plutchik R. *Emotion: a psychoevolutionary synthesis*. Harper & Row; 1980.
- Ponsonby-McCabe S, Boyle E. Understanding brands as experiential spaces: axiological implications for marketing strategists. *Journal of Strategic Marketing* 2006;14:175–89.
- Schoefer K, Ennew C. The impact of perceived justice on consumer emotional responses to service complaints experiences. *Journal of Services Marketing* 2005;19(5):261–70.
- Smith AK, Bolton RN. An experimental investigation of customer reactions to service failure and recovery encounters: paradox or peril? *Journal of Service Research* 1998;1(1):65–81.
- Smith AK, Bolton RN. The effect of customers' emotional responses to service failures on their recovery effort evaluations and satisfaction judgments. *Journal of the Academy of Marketing Science* 2002;30(1):5–23.
- Smith AK, Bolton RN, Wagner J. A model of customer satisfaction with services encounters involving failure and recovery. *Journal of Marketing Research* 1999;36:356–72 (August).
- Spreng RA, Harrell GD, Mackoy RD. Service recovery: impact on satisfaction and intentions. *Journal of Services Marketing* 1995;9(1):15–23.
- Szymanski DM, Henard DH. Customer satisfaction: a meta-analysis of the empirical evidence. *Journal of the Academy of Marketing Science* 2001;29(1):16–35.
- Tax SS, Brown SW, Chandrashekar M. Customer evaluations of service complaint experiences: implications for relationship marketing. *Journal of Marketing* 1998;62:60–76 (April).
- TeoTSH, Lim VKG. The effects of perceived justice on satisfaction and behavioral intentions: the case of computer purchase. *International Journal of Retail & Distribution Management* 2001;29(2):109–25.
- Tsai S. Utility, cultural symbolism and emotion: a comprehensive model of brand purchase value. *International Journal of Research in Marketing* 2005;22:277–91.
- Varela-Neira C, Vázquez-Casielles R, Iglesias-Argüelles V. The influence of emotions on customer's cognitive evaluations and satisfaction in a service failure and recovery context. *The Service Industries Journal* 2008;28:497–512 (May).
- Weiss HM, Suckow K, Cropanzano R. Effects of justice conditions on discrete emotions. *Journal of Applied Psychology* 1999;84(5):786–94.
- William S. The effects of distributive and procedural justice on performance. *Journal of Psychology Interdisciplinary and Applied* 1999;133(2):183–94.
- Yoon K, Doucet LM. Attribution and negative emotion displays by service providers in problematic service interactions. *Research on Emotion in Organizations* 2006;2:269–89.