



# Small firm cooperative constructs: addressing industry power relationships

Small firm  
cooperative  
constructs

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## Abstract

**Purpose** – The purpose of this paper is to examine the Irish community pharmacy sector in the context of power relationship theory. Specifically, the paper analyses the relationship between dispensary software vendors and the independent community pharmacist; and explore dominant industry partners' influence on individual pharmacies in terms of technology adoption. The core objective is to ascertain whether the potential for a cooperative construct can be realised in this milieu.

**Design/methodology/approach** – A comprehensive literature review precedes a full investigation and analysis of the Irish community pharmacy sector's competitive environment, in the context of the pre-mentioned power relationship theory.

**Findings** – This research uncovered a potential alternative to the industry's existing power imbalance in the form of a cooperative construct between a team of independent community pharmacists and an employed software vendor. The purpose of this partnership was to ensure the installed software focused on the pharmacist's strategic needs rather than those of the dominant partners. The paper goes on to discuss the failure of this partnership in the context of independent pharmacist's future competitive survival.

**Research limitations/implications** – Data collection was limited to the community pharmacy sector in the Republic of Ireland. Therefore, care should be taken in making generalisations from this study.

**Practical implications** – In the absence of cooperative constructs, power relationship imbalances will continue to exist in this competitive environment, to the detriment of the small firm.

**Originality/value** – Little research has been completed in the area of small business cooperative constructs as a means of competing successfully in a power relationship scenario. This paper goes some way to redressing this.

**Keywords** Small enterprises, Co-operative organizations, Ireland, Pharmacology

**Paper type** Case study

## Introduction

An industry's competitive environment includes the relative bargaining power of suppliers and customers in the context of a particular organisation (Porter, 1980, 2001). The assumption is that if buyers and sellers are all of reasonable size and have sufficient resources, they offset each other's potential power in the industry: there may be a leader, but that firm has no power to superimpose its wishes on the channel (Mallen, 1978). Conversely, there is potential for economic exploitation via channel power if one or more parties control the channel (Galbraith, 1973). Here, the channel operates as a system in which the leader forces members to cooperate, creating a centrally controlled or "power" relationship (Gereffi *et al.*, 2002). As this relationship is dynamic (Dicken *et al.*, 2001), it can evolve into economic exploitation, particularly if self-interest dominates channel decisions (Anita and Frazier, 2001; Cousins, 2002). This



paper aims to examine the Irish community pharmacy sector in the context of power relationship theory, and explores dominant industry partners' influence on the individual pharmacy in terms of technology adoption. The paper goes on to analyse the relationship between dispensary software vendors and the independent community pharmacist in Ireland and assesses whether the potential for a cooperative construct can be realised in this environment.

### Literature review

A manifestation of the power relationship is where firms with greater power can influence smaller trading partners to adopt information systems (Hart and Saunders, 1997; Power and Sohal, 2002). Specifically, the bargaining power of trading partners is an important influence in driving the adoption of inter-organisational operating systems in small firms (Hart and Saunders, 1998; McGrath and Heiens, 2003), as these companies often exert pressure on their smaller partners to use technology (Hwang *et al.*, 1993; Kent and Mentzer, 2003). As community pharmacies are being challenged by an increasing demand for information technology competence (Schmidt and Pioch, 2004), these pressures are amplified within the community pharmacy sector. Thus, while technology has become a strategic necessity of doing business, there is a difference between the "beneficial" necessity of a large supplier and the "unfortunate" necessity of a small partner (Clemons and Row, 1988). Regardless of the cost structure, a small business may have to join a technical network out of necessity due to the presence of an IS efficient supplier (Barua and Lee, 1997). This outcome would be equally true where the consumer is the dominant industry partner (Morris *et al.*, 2003). In this milieu, a small firm's IS investment decision is often drawn from fear of being left behind by the competition (Huber, 1990). Small firms may also fear the imposition of penalties for not joining the network (Treadgold, 1990), for example, via a reduction in business volume by the larger supplier (Udo and Pickett, 1994). Presupposing this IS investment scenario in the community pharmacy sector it is fair to assume that dominant partners in the industry can dictate the implementation of software solutions in small firms.

In reality, the small firm's make or buy decision in relation to an information system is dictated by internal resource constraints (Welsh and White, 1981). Small businesses often lack the necessary internal knowledge and technical skills to create the systems themselves (DeLone, 1988; Thong, 2001), and are therefore largely dependent on external IS companies to develop or purchase systems on their behalf (Attewell, 1992; Cragg and King, 1993). Ideally, the small firm's software solution should incorporate tools that facilitate competitive strategies that are not easily duplicated in their market (Laudon and Laudon, 2004). Specifically, the professional role of independent pharmacists can serve as a basis for establishing competitive advantage in the marketplace for pharmacies that differentiate by service (Szeinbach *et al.*, 1994). This differentiation requires pharmacists to have "greater personal contact with patients, increased availability of comprehensive pharmaceutical service, increased access to patient information and more interaction with other health professionals" (Szeinbach *et al.*, 1994, p. 12). As modern strategy emphasises an understanding of the customer value chain, IS can offer these firms a competitive advantage by producing data for finely tuned customer service techniques that enable pursuit of a customer focus strategy, and distinguish them from their competitors.

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The difficulty with a purchased system is that the small business has relatively little influence over the design of a pre-written software solution (Dhillon, 2004; Fuller, 1996). Therefore, there is a potential lack of small firm independence (Senn and Gibson, 1981), as the small business may have to modify their requirements and/or work procedures to suit the IS vendor and settle for a less effective information system as a result (Davenport, 1998). In particular, powerful suppliers may push the small firm toward generic processes, (Davenport, 1998; Levy *et al.*, 1999) even when a customised process may be the source of competitive advantage (Laudon and Laudon, 2004). This issue is compounded by the fact that small firms in their individual capacity lack power in the marketplace (Westhead and Storey, 1996) and are likely to be beholden to the dominant partner's IS network requirements as a result (Iacovou *et al.*, 1995). The small firm's subjection is often cemented by the external software vendor's affiliation to dominant partners in meeting their system requirements in the industry, creating the potential for the small firm to be of secondary importance. This can manifest itself in a "relatively poor degree of conceptual 'fit' between what software tools are offered and what is needed" (Fuller, 1996:39) from the small firm's perspective.

In summary, commercial relationships are seldom fair in the division of power and reward and a power imbalance exists in most markets (Kumar, 1996) as a result. Theoretically the onus is on the powerful party to treat the weaker, vulnerable party fairly (Kumar, 1996), although research findings suggest that the larger party may derive the bulk of the relationship benefits unless an integrated partnership exists between participating organisations (Hingley, 2001). Thus, assuming a power imbalance between the community pharmacist and software vendors, the power relationship must be carefully managed by the smaller firm. Based on Hingley's (2001) findings, the ultimate goal should be a cooperative construct, whereby the community pharmacy relates to the software vendor as a committed partner (Duarte and Davies, 2004; Morgan and Hunt, 1994) rather than as an eventual customer with low bargaining power and minimal influence on the IS offerings strategic focus. Under this construct, intra- and inter-organisational power relations have the potential for shared vision (Jones and Hendry, 1994), at least in theory. Whether a power and dependency construct can coexist alongside a cooperative one remains to be seen, but channel members should work toward developing mutually beneficial collaborations to ensure equitable treatment of all participants (Heide and Miner, 1992; Rokkan and Haugland, 2002) and prevent opportunistic behaviour on the part of dominant members (Cousins, 2002). Once this landscape has been instated, a cooperative IS strategy can provide integration within the industry supply chain (Blili and Raymond, 1993; Kent and Mentzer, 2003; Power and Simon, 2004), creating an improved supplier relationship through the exchange of information (Levy and Powell, 2000), and increased inter-organisational commitment (Morgan and Hunt, 1994) across all industry participants. Based on existing literature, this research seeks to establish whether external industry participants influence Irish independent community pharmacists' IS investment decisions. The core objective is to ascertain whether powerful participants influence the pharmacist's resulting relationship with respective software vendors within the sector, and assesses whether the potential for a cooperative construct can be realised in this environment.

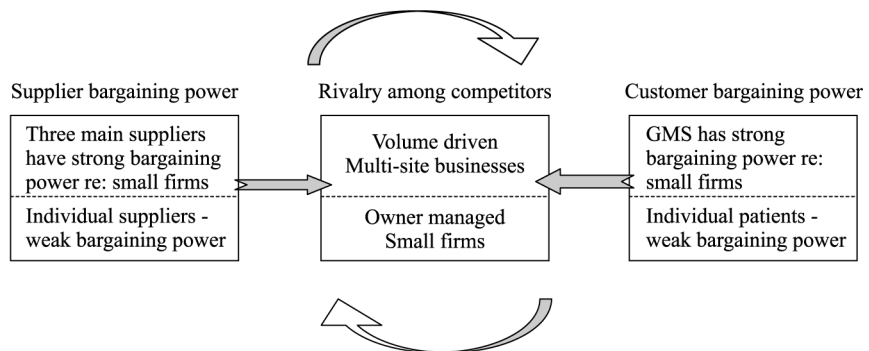
**The Republic of Ireland (ROI) community pharmacy competitive landscape**

There are 1,272 community pharmacies operating in the Republic of Ireland (Irish Pharmaceutical Union (IPU), 2005). The sector primarily consists of individual owner-occupied businesses, the majority of which employ less than ten people each. There are a small number of entrepreneurial pharmacists who own multiple pharmacies, and employ pharmacist managers to run each site on their behalf. Lastly, the number of retail chains operating in the sector has risen significantly in recent years, accounting for 15 per cent of ROI community pharmacies in 2005, up from 7 per cent in 1998 (Irish Pharmaceutical Union (IPU), 2005), and this trend is likely to continue in the future. To date, supplier and customer dominance within the sector has resulted in a channel dynamic that resembles Gereffi *et al.*'s (2002) power relationship theory (see Figure 1).

From a supplier perspective, three main wholesalers control the supply of prescription drugs in the sector – United Drug, Uniphar and Cahill May Roberts[1]. While there are other suppliers who operate in the industry, their individual market share is minimal. Consistent with Porter's (1980, 2001) findings, each dominant wholesaler's relative bargaining power is strong due to their respective size and control of industry supply and technology. As individual community pharmacies do not hold market power, they are beholden to these supplier's terms and conditions of trade, an issue cited by Westhead and Storey (1996) and Kent and Mentzer (2003), among others.

Separately, consumer spending is dominated by the government-led General Medical Services (GMS) board, which accounted for 73 per cent of all prescription revenue in 2004 and provided a total retail value of €1.1 billion euros (GMS Board Annual General Medical Services (Payments) Board, 2004). GMS contracts are particularly valuable to contracted independent pharmacies, as the majority of individual turnover comes from this customer. Therefore, this consumer controls the market in relation to dispensed medication in the Irish context. Industry analysts suggest that the government's consumer role in the ROI community pharmacy sector has "created a market that cannot be described as normal" (Durkan, 2004, p. 4).

Lastly, the changing competitive environment is of specific interest to the independent community pharmacists operating in Ireland. In relative terms, around half of the pharmacies in the UK are owned by large corporations, giving a potential indication of the future competitive landscape in the Irish context. As Ireland has one



**Figure 1.**  
ROI community pharmacy industry profile

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pharmacy for every 3,200 people, the third-highest ratio in the European Union (EU) and well ahead of the 1:4,500 average (Coyle, 2004), independent pharmacists believe that consolidation is a likely eventuality in the context of this competitive landscape (a view supported by Mortell's, 2004 findings). In this scenario, the power relationship between corporate pharmacies, the dominant wholesalers and the GMS should resemble the market scenario outlined by Mallen (1978) in the literature review. However, it is likely that independent community pharmacies will remain beholden to controlling participants in the future and economic exploitation by dominant players is feasible (a view supported by Dicken *et al.*'s, 2001 findings), particularly from the independent pharmacist's perspective. The fear is that "single owner operated local [Irish] pharmacies would be particularly vulnerable in a totally open market" (Mortell, 2004 Report), a point reinforced by Westhead and Storey's (1996) concern for small firms lack of power in the marketplace.

### **Automation in the community pharmacy sector**

On a national level, the dominant wholesalers and the GMS board's requirement for on-line connectivity have strongly influenced the implementation of dispensary information systems by independent pharmacies. This action is consistent with the literary findings of Hart and Saunders (1997), Morris *et al.* (2003), Power and Sohal (2002), and Schmidt and Pioch (2004), among others:

From the wholesaler perspective, technological adoption is normally to facilitate a link to automated ordering and procurement systems within the supplier organisation. In Ireland, each of the three primary wholesalers stipulate on-line automated connectivity to their respective information systems (IS), and each seeks partner automation via economic enticement and/or the threat of market exclusion. For example, there can be delays in completing a manual order, particularly in recent years, as on-line connectivity has become the normal mode of communication. In addition, discount structures afforded to automated pharmacies are more beneficial than those offered to manual customers, as individual pharmacies are offered a percentage allowance by the wholesaler for using the technology, in recognition of the efficiency gain that the system affords each wholesaler in terms of business operations. Therefore, on-line connectivity could be considered a "strategic necessity" in the case of independent pharmacists operating in the Irish sector, reinforcing Barua and Lee's, 1997 and Clemons and Row's, 1988 research findings.

From the consumer perspective, a core GMS strategic objective in recent years has been to encourage the uptake of technology within the sector (Community Pharmacy Reimbursement Project, 1999). By the end of 2003, 80 per cent of participant pharmacists were submitting GMS claims electronically, and in the majority of cases were qualifying for payment within 14 working days of submission (GMS Annual Report, 2003). Although individual pharmacies have not been forced to put the relevant technology in place, manual claims only qualify for payment six weeks after submission, a trade disincentive similar to that discussed in Treadgold's (1990) and Udo and Pickett's (1994) papers. Thus, through prompt payment, the government has created an incentive for automated GMS returns on the part of individual community pharmacies.

Broader issues, specifically dispensing regulations and patient record maintenance, compound the industry move toward IS-enabled dispensaries. The pharmacist plays a

critical role in the safe dispensing of medicines and must ensure the correct checks and balances are in place to minimise error. Community pharmacy information systems have been designed to facilitate unique identifiers for patients, doctors, drugs and pharmacies participating in State sponsored schemes. This should result in an electronic record that displays an accurate patient history with mechanisms in place to check for drug interactions, drug allergies and compliance. From an international perspective, greater emphasis is being placed on primary care, with pharmacy IT systems facilitating the provision of a consultative-based pharmacy service. "These systems are perceived to be the key to simultaneously achieving improved patient care, a more efficiently run business and freeing up more time to spend with patients" (McLoughlin, 2005, p. 32). Huber's (1990) views on individual firm's IS motivation are reinforced here as independent pharmacists recognise the need for inclusion through technology in order to remain competitive. Considering the professional role of independent pharmacists is seen as a basis for establishing competitive advantage in the marketplace for pharmacies that differentiate by service (Szeinbach *et al.*, 1994), IS can facilitate the development and protection of core competencies in this context. As independent pharmacies cannot legitimately compete on a cost basis due to their minute size relative to market leaders, pursuit of an IS-enabled differentiation strategy is a logical approach to competition from the small pharmacy perspective (Schmidt and Pioch, 2004).

#### **The software vendor: community pharmacist relationship**

Consistent with the findings of DeLone (1988) and Thong (2001), the majority of independent Irish pharmacies have neither the internal skills nor the technical expertise necessary to create software solutions themselves. They are therefore largely dependent on external vendors to fulfil their dispensary's technological needs. The community pharmacist's IS requirements detailed above act as an additional barrier to entry against general software vendors, therefore reinforcing Galbraith's (1973) power dynamic in this context. Alternatives within independent pharmacist's price range make the software vendor options available to independents even more restrictive, with two IS vendors dominating the dispensary IS market in the Irish context. These relatively protected software suppliers are predisposed to the dominant players' technology requirements in the Irish community pharmacy sector, and have developed pre-packaged pharmacy IS solutions that are compatible with the wholesaler's two-way on-line interface requirements as well as the GMS connection, forcing pharmacies to adopt generic procedures in-store. This is contrary to the views put forward by Davenport (1998), Laudon and Laudon (2004) and Levy *et al.* (1999) who argue that small firms gain competitive advantage through the adoption of customised processes. Specifically, independent pharmacies seek to compete on the basis of personal service (Dillon, 2004; Szeinbach *et al.*, 1994) rather than solely on price, where the core values of pharmacy practice (professional ethos, pharmacy service, absolute patient profile) underlie all aspects of the organisation. Regrettably, a sole focus on IS-based efficiency implies that the small firm's strategic opportunity is secondary (Fuller, 1996; Dhillon, 2004; Davenport, 1998), and the independent pharmacy's patient-centred competitive angle may be eroded as a result.



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### Opportunity lost?

Three software vendors created an electronic interface between the GMS system and community pharmacies to facilitate on-line interaction in 1999. Two vendors – Systems Solutions and McLernons were already well established prior to this move. Prometheus, a third entrant into the industry's software vendor market, was established by a group of approximately 200 independent pharmacies and set about contracting a software company to write an IS solution specifically designed from a pharmacist's competitive perspective, incorporating similar criteria to that outlined by Szeinbach *et al.* (1994) in the literature review. The Prometheus objective was to combine the GMS interface requirements with internal strategic goals through the enhancement of professional service via IS-enabled patient profiling within each pharmacy.

The proposed relationship reflected Hingley's (2001) cooperative construct in many regards. The strategy sought to overcome technical skill restrictions in each pharmacy and retain strategic control in their individual businesses. There was awareness among pharmacists that dependence on a pre-written software solution, created by a vendor affiliated to the GMS strategic goals, could erode the independent's uniqueness over time, and ultimately have a negative impact on their competitive standing in the marketplace. These observations are strongly supported by the empirical findings of Attewell (1992), Fuller (1996) and Senn and Gibson (1981), among others. The core focus behind Prometheus was to protect independent pharmacy power in the sector against IS-induced erosion by having control over the software's functionality. Specifically, the software sought to create a unique customer emphasis via the maintenance of a complete patient profile, including both dispensary and over the counter medical purchases in each pharmacy. From a competitive perspective, this system should, in theory, enable sustainable competitive advantage for individual pharmacies, as suggested by Davenport (1998) and Szeinbach *et al.* (1994). The plan also sought to defend the independent pharmacist's sovereignty in terms of software development in the future, implying Kumar's (1996) power imbalance exists between independent pharmacies, software vendors and dominant industry players in this context.

The interim period resulted in an interesting competitive landscape. Of the 1,048 community pharmacies with automated GMS transmission functionality in April 2004, 618 are Systems Solutions customers (equating to 58 per cent of all automated stores), 377 use the McLernon system and 53 operate under Prometheus solutions (Doherty, 2004). Clearly, Systems Solutions is the market leader in this regard while Prometheus holds little power in the marketplace, servicing only 5 per cent of those pharmacies transmitting electronically. Despite the potential reward of equitable treatment in the marketplace as advocated by Heide and Miner (1992) and Rokkan and Haugland (2002), Prometheus has not established itself as an equal player in the industry. There are several contributing factors in this regard: The existing software vendors responded to Prometheus's market entry with a comprehensive postal and telephone marketing campaign which targeted all pharmacies, including competitor clients, while Prometheus has been largely dependent on member goodwill. Separately, the "professional care" objective has proven difficult to convert into an integrated software solution, as the pursuit of absolute customer profiling resulted in technical integration and internal management complexities, particularly

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between the dispensary and the front store information systems in participating pharmacies. The result is that current market demands, specifically on-line connectivity, have propelled independent pharmacies to delay the opportunity to collaborate with Prometheus in favour of aligning themselves with the market leader, over whom they have little influence. This is despite the potential benefits of a cooperative construct between Prometheus and independent pharmacies in the evolving marketplace.

### Discussion

Considering both wholesaler and GMS information system requirements centre on efficiency, the software vendor's accentuate on-line connectivity as a core function, reinforcing Iacovou *et al.*'s (1995) perspective that small firms are beholden to their dominant partners' network requirements. However, a sole focus on efficiency implies that the small firm's strategic opportunity is secondary, a view supported by Fuller (1996); Dhillon (2004) and Davenport (1998), among others. In addition, anecdotal industry evidence suggests an apparent assumption on the software vendor's part that the small firm will fit the IS solution rather than the solution fitting the small firm's operational and strategic requirements. The result is a generic solution, with little scope for amendments to fit individual business needs and often necessitating the amendment of store procedures to meet the software vendor's system requirements. Supporting literature (for example: Laudon and Laudon, 2004 and Levy *et al.*, 1999) suggests that implementing a generic system in all pharmacies when each is run independently, with different processes and procedures in place, will have a direct negative impact on the effectiveness and efficiency of an IS solution in-store and may erode the small firm's competitive advantage in the marketplace over time.

Anchored in the writings of Duarte and Davies (2004), Anita and Frazier (2001) and Cousins (2002) among others, the power/dependency relationship that has developed between software vendors and independent pharmacies within the Irish community pharmacy sector over the last five years is damaging from the independent's perspective. Competitive advantage is being eroded through dominant partners' powerful influence over efficiency-led IS solutions, with little focus on fulfilling independent pharmacies strategic objectives. Independent pharmacies seek to compete on the basis of personal service (Dillon, 2004; Szeinbach *et al.*, 1994) rather than solely on price, where the core values of pharmacy practice (professional ethos, pharmacy service, absolute patient profile) underlie all aspects of the organisation. In this context, the pharmacist performs an advisory cognitive role in addition to that of technical medical dispenser. Prometheus sought to incorporate pharmacy professional practice requirements in their software in order to facilitate the achievement of these objectives and protect the community pharmacist's unique competitive advantage in the marketplace. To reiterate, the system sought to offer the pharmacist a complete patient profile through the historic maintenance of all patient purchases, including dispensed and over the counter medication thus supporting their competitive strategy. Despite the attempt to offer a patient centred software alternative in the form of Prometheus, this move has largely proved unsuccessful as independent pharmacies continue to affiliate themselves to the market leader, reinforcing Galbraith's (1973) power relationship theory in this context.



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Independent community pharmacies are now facing an even greater challenge. As retail chains evolve and grow in the Irish context, they are likely to have sufficient resources to facilitate internal technical expertise, thereby reinstating power balance with software vendors from their perspective. The assumption is that the resultant strategic information systems will offer these chains a competitive edge over independent pharmacists, as efficiency goals will be tempered with strategic effectiveness in these information systems. Assuming chains grow at the rate seen in other European countries, they are likely to operate under Mallen's (1978) balanced power relationship within the market, while independent pharmacists will continue to operate at an increasing disadvantage in the context of market power. Thus, while the onus is ideally on all participants to ensure equitable treatment (as per Kumar, 1996), for equal voice, the independent community pharmacists must work together to ensure greater balance in the evolving competitive landscape.

Clearly, the core values of pharmacy practice (professional ethos, pharmacy service, absolute patient profile) are being eroded by IS-induced policies, which foster efficiency-driven relationships. Perhaps an issue is that the professional practice ethos is an emerging concept in terms of software functionality and as such needs time to be articulated, shaped and bedded down by the community pharmacy sector. Ironically, it is this professional ethos that should provide a unified focus and ultimately bind the relevant community pharmacists together. Pharmacists must establish themselves as a partner rather than a customer in the software vendor relationship, in order to reinstate their strategic goals in the context of software functionality. In particular, the existing IS efficiency axis must be tempered with the pharmacist's professional focus and patient centred ethos. The resultant IS landscape should offer mutual reward for all participants based on the literary findings, where pharmacists can contribute professionally in terms of IS benefits to the industry. An industry analyst recently articulated this view: "As the healthcare practitioners at the forefront of information technology, community pharmacists are in a position to help the government to exploit this potential" (Dillon, 2003). However, lone pharmacists will not achieve strategic cooperation in isolation. To ensure future survival, the focus must be on a shared vision perspective as advocated by Jones and Hendry (1994). When that is achieved then there is a chance that a strategic cooperative construct discussed by Hingley (2001) can replace the existing power relationship in this context.

## **Conclusion**

The purpose of this paper was to examine the Irish community pharmacy sector in the context of power relationship theory. Specifically, the paper analyses the relationship between dispensary software vendors and the independent community pharmacist; and explores dominant industry partners' influence on individual pharmacies in terms of technology adoption. The core objective was to ascertain whether the potential for a cooperative construct could be realised in this environment, by investigating the introduction and subsequent performance of a collaborative software development project (Prometheus) established by a group of 200 independent Irish pharmacists for the purposes of offering a differentiated alternative to generic IS vendor offerings in the Irish community pharmacy sector. Findings suggest that current market demands, specifically on-line connectivity, have propelled independent pharmacies to delay the opportunity to collaborate with Prometheus in favour of aligning themselves with the

market leaders, over whom they have little influence. This is despite the potential benefits of a cooperative construct between Prometheus and independent pharmacies, specifically the adoption of an IS solution which can facilitate differentiated competitive strategies within their pharmacies.

It is the author's contention that community pharmacists must involve themselves collectively at the planning, design, development, implementation and management stages of industry specific IS solutions. Specifically, these pharmacies would gain from lobbying as a collective force in relation to vendor negotiation in order to rebalance the power relationship with software vendors from their individual perspective. Considering this reality, the relative failure of Prometheus in eroding software vendor power in favour of the independent pharmacist is perplexing and remains a paradox in this context.

#### Note

1. Gehe, an international conglomerate, owns Cahill May Roberts.

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