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# How To Succeed In The Transformation Of An It Function: Lessons From Coles Myer Limited

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# HOW TO SUCCEED IN THE TRANSFORMATION OF AN IT FUNCTION: LESSONS FROM COLES MYER LIMITED

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## Abstract

*This paper documents lessons learnt by the IT-leadership team as they played their part in a billion-dollar IT-based transformation in a large Australian retail organization, Coles Myer Limited. The story begins when the new CIO arrived in October 2002, and ends five and a half years later when the CIO resigned, in March 2008. During that period, the IT-leadership team transformed a group of very ordinary divisional IT organizations into an extremely high-performance centralized IT organization—at one stage with IT staff numbers exceeding 2,000. The case concludes with a list of seventeen key success factors for the IT transformation at Coles Myer and a comparison of these with the recommendations from Kotter's (1995) generic process model of organizational transformation. The case provides unique insights into the way a well-resourced high-energy IT team was built and managed as it attempted to support a broader business transformation.*

*Keywords: IT transformation, key success factors, case study, IT governance, project management*

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# 1 INTRODUCTION

Organizational transformation means making fundamental change to the way a business is run. Much has been written about such topics as: the economic incentives for organizational transformation (Kochan and Useem 1992; Rouse 2005), doing organizational transformation (Kotter 1995, 1996), organizational change (Armenakis and Bedeian 1999), episodic-versus-continuous change (Weick and Quinn 1999), business process reengineering (Hammer and Champy 1993, Davenport 1993, Caron et al. 1994), IT-enabled organizational transformation (Venkatraman 1994, Orlikowski 1996), and transformational outsourcing (Linder 2004). Organizational transformation often requires a matching transformation in the IT function, but little has been written about IT transformation.

In fact, there are at least three types of transformation of the IT function:

1. *Transformation through IT Outsourcing*: Cross et al. (1997) describe how British Petroleum transformed its IT function by outsourcing, resulting in a massive decrease in the size of the inhouse IT function. Lacity and Willcocks' (1998) concept of "total" outsourcing falls into this same category. So, too, do the famous outsourcing case studies on Kodak (Applegate and Montealegre 1991) and Xerox (Applegate and Davis 1995).
2. *Transformation from back-office support role to strategic partnership*: Roepke et al. (2000) describe a successful transformation of the IT function at 3M, from a back-office support role to one of strategic partnership with the business. Curley (2006) describes a transformation with similar objectives at Intel.
3. *Transformation by centralizing or decentralizing the IT function*: Kettunen (2009) describes an IT-function transformation in a global manufacturing firm that decided to move from having many autonomous IT functions each serving its own business unit to a much more centralized "global competency centre" approach. A similar type of transformation of the IT function is required when firms merge, e.g., as discussed in the case studies by Johnston and Yetton (1996), Giacomazzi et al. (1997), Mehta and Hirschheim (2007), and Henningsson and Carlsson (2007).

Although these three types of IT-function transformation are very different, the common theme is rapid, sustained step-change change in IT-function capabilities. Further developing this theme, *the goal of this paper is to document lessons learnt by the CIO and his IT-management team as they played their part in a very successful combination of type 2 and 3 IT transformation at one Australia's two largest retail organizations, namely, Coles Myer Limited, during 2002-2007*. Coles Myer's IT transformation was a type-2 transformation because the IT transformation was itself part of a much larger, though less successful, business transformation at Coles Myer, in which IT played a critical role. It was also a type 3 transformation because it involved centralizing a number of previously autonomous IT functions in different divisions of Coles Myer. Specifically, during the period 2002-2007, approximately one billion dollars was spent on new IT systems at Coles Myer. This raised Coles-Myer's annual expenditure on IT from 1% to 1.4% of its average A\$33 billion p.a. revenue during that period. A transformed IT organization was required to deliver the new IT-based systems.

In addition to summarizing the lessons learnt by the CIO and his management team about what made their IT transformation a success, we also analyze lessons from the case using Kotter's (1995, 1996) process model of organizational transformation. The reason for doing so is that change in the IT function is a special case of organizational change generally, so one would expect lessons from the literature on organizational transformation in general to apply to transformations of the IT function. We chose Kotter's model because it is highly cited and has strong empirical backing. Specifically, based on more than 100 case studies of attempted organizational transformation, Kotter (1995, 1996) argues that successful organizational transformations all follow the eight-phase change process shown in Figure 1. In Kotter's words:

"The most general lesson to be learned from the more successful cases is that the change process goes through a series of phases that, in total, usually require a considerable length of time. Skipping steps creates only the illusion of speed and never produces a satisfying result. A second very general lesson is that critical mistakes in any of the phases can have a devastating impact, slowing momentum and negating hard won gains." (Kotter, 1995, p.59)

Given the strength of Kotter’s claims, we wondered if they also applied to this case study. Thus, the research questions posed and answered in this paper are as follows:

1. *What lessons can be learnt from the very successful transformation of the IT function at Coles Myer during their billion-dollar IT systems transformation in 2002-2007?*
2. *Was the transformation process used by the CIO and his team at Coles Myer consistent with the guidelines from Kotter (1995, 1995) as depicted in the process in Figure 1?*

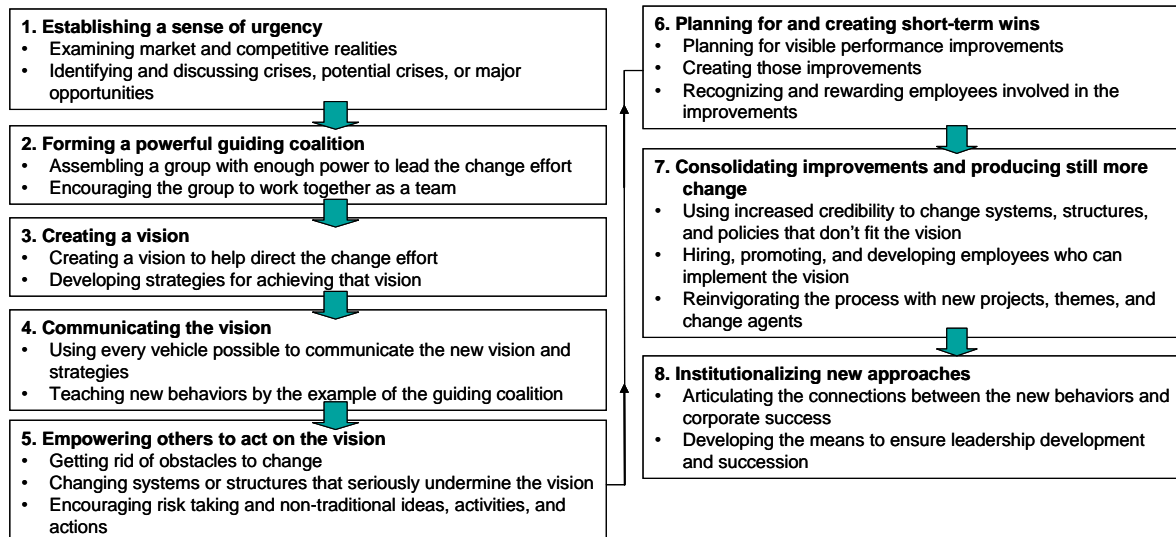


Figure 1: Eight Steps for Transforming your Organization (Source: Kotter (1995, p.61))

## 2 METHODOLOGY

The case study presented below is based on roughly twenty hours of interviews during 2008: three interviews with the CIO (five hours), thirteen one-hour interviews with senior IT managers from the Coles Myer group during 2003-2007, and one interview with a vendor manager. All interviews were audio recorded, transcribed, and compared to the other sources (such as annual reports, news releases, presentations at various industry conferences, and newspaper reports) to assemble and prioritize the information presented chronologically below. Since the views of all interviewees were highly consistent with the CIO’s recollections, and space is limited, we’ve used quotations from the CIO transcripts to provide our first-hand descriptions of steps taken in the IT function at Coles Myer.

The case study presented below documents the many interrelated changes introduced by the new CIO and his team as they played their part in the transformation of the IT function. Our major difficulty in writing it was to reduce its length from a longer version to fit within the 12-page limit for PACIS 2012. After the case study has been presented, the case is then analyzed using Kotter’s model in Figure 1 to see if the actions taken during the very effective IT transformation at Coles Myer were consistent with Kotter’s recommendations. To ensure that the final case study accurately reflected the key actions in the IT transformation at Coles Myer, this entire paper was sent to CIO Mahler, who reviewed it with care and agreed to be a co-author of the paper. Mahler’s agreement to co-authorship is evidence that the facts described in the case are consistent with his recollection of events.

## 3 THE IT TRANSFORMATION AT COLES MYER LIMITED

In March 2002, six months after his appointment as the CEO of Coles Myer, one of Australia’s two largest retail chains, John Fletcher announced his five-year strategic plan “for the delivery of significantly improved financial performance”. His plan included (a) “instilling a sense of one team in all our 162,000 people”, (b) a cost-reduction focus “designed to provide the best value to all our customers day-in, day-out”, and (c) a continuous business-improvement program including

“integration of the merchandising process”, supply-chain optimization, and shared services. This transformation was intended to produce an increase of earnings before interest and tax (EBIT) margin from 2.5% in 2001 to 4% by 2006, an increase of 60%. On sales revenue of A\$26 billion at the time, this was a forecast increase in EBIT of over A\$400 million per year. Information technology (IT) and supply-chain optimization were to play a major role in the planned transformation by providing shared services to the brands. To help him execute his strategy, the CEO hired two high-profile retail managers, a high-performing CIO and a leading supply-chain manager, from overseas.

The new CIO, Peter Mahler, was hired to help Coles Myer, and particularly the major Supermarkets, Liquor and Fuel division (known internally as FLF, for “Food, Liquor, and Fuel”) make break-away improvements in both supply-chain efficiency and in exploiting information from the loyalty system for more targeted marketing. The story begins when Mahler arrived from the Europe in October 2002. It ends five and a half years later in March 2008 when Coles had been taken over by Wesfarmers (in November 2007) and Mahler resigned as CIO. During this five-year period, Mahler oversaw the building of an extremely high-performance IT team—at one stage with IT staff numbers exceeding 2,000—to undertake a major refresh of the IT platforms at Coles. By June 2008 the IT team was winding down and many key players had left to take up senior IT positions in other Australian companies. It is widely agreed that for a period of some years, the IT team at Coles was one of “the best IT shops in the country”.

### **3.1 Mahler’s Inheritance (October 2002)**

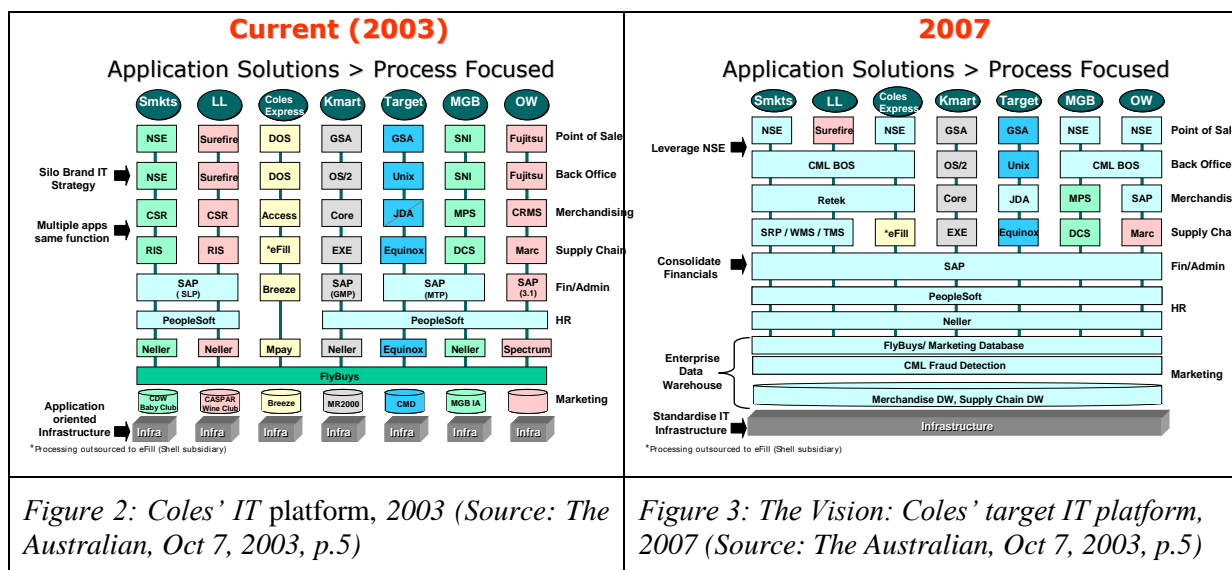
When Mahler arrived in October 2002, he found that most of the power was in “the brands”, i.e., in the different business units of Coles Myer such as supermarkets (Coles), department stores (e.g., Myer), liquor sales (Liquor Land), and office products (Officeworks). As a result:

- The 900-strong complement of IT staff was fragmented. The infrastructure group reported into Corporate and Property Services, but the remaining IT groups reported to their respective brands. The 12 brands operated as competitors in a siloed mentality. Each brand had its own IT organization that also competed against one another. They did not work as one team.
- There was a legacy of under-investment in IT. (For example, the normal life of a point-of-sale system might be about eight years, but the POS terminals at Myer were 25 years old.) The mentality of building systems in-house added cost to all initiatives and led to under-delivery on scope.
- The IT application portfolio, depicted in Figure 2, was fragmented and stale. In early 2003, there were over 600 applications, with extensive duplication. IT-based systems were delivered 12 times in 12 different ways. The systems were aged and inflexible. There was no possibility of cross-brand or company-wide initiatives.
- There was a lack of understanding of total IT investment. Governance was generally poor. Technology procurement was done in the absence of an overall architecture, which led to a proliferation of disparate technologies. Vendors played one brand off against another.
- Project-management capability was poor. Methodologies, standards, and process were lacking. The track record on major-project delivery was very poor. First indications of a major problem on a project were after the fact.

Mahler’s “brief” from the CEO was to transform the company’s antiquated IT systems to world’s best practice. The CEO’s goal was to improve Coles’ operational efficiency, particularly in the supply chain for the supermarkets division—the three columns on the left of Figure 2 headed “Smkts”, “LL”, and “Coles Express”—and so deliver significantly improved financial performance over the next five years. As indicated earlier, to do this, Mahler found he also needed to transform the IT function.

### **3.2 IT Strategy**

Early on, Mahler made three strategic decisions that set the stage for the transformation of the IT function. First, he decided to create a new centralized IT organization consisting of the best people available in Australia. Second, he and his new senior IT managers developed a vision to transform the



application landscape from the siloed systems in Figure 2 to the much more integrated model depicted in Figure 3. This included building a new data centre and replacing almost all the aged IT infrastructure. The CEO's overall business-transformation plan was announced to analysts with much fanfare by Fletcher, Mahler, and the new head of Supply Chain Services in September 2003. In her detailed six-page report following that announcement, journalist Sue Bushell (2003) reported:

“CEO Fletcher told analysts that by the end of a five-year program that would see distribution centres pared from 41 to 24, the supply chain changes would reap \$425 million per annum in benefits. New technology to be introduced is designed to remove complexity and duplication of systems and provide suppliers with data on how their stocks are selling and when the supermarket shelves need to be replenished.”

“Mahler will oversee a sweeping technology overhaul that will involve the spending of \$351 million on technology between now and the end of the 2006 financial year, plus an additional \$315 in supply chain systems over the next five years.”

Third, within IT, Mahler and team developed a roadmap and seven principles for implementing the A\$670 million IT-systems component of business transformation at Coles Myer. The roadmap consisted of the seven principles listed below and five major phases discussed in the following sections. The seven principles, which did not change over the next five years, were:

1. Shift from a *brand* focus to a *process* focus.
2. Simplify! Cut out diversity, complexity, and duplication of IT systems.
3. Channel IT investment towards consolidation and renewal of both the IT infrastructure and application portfolio.
4. Buy not build: “we are not building software anymore, we are buying software”
5. Two-vendor policy: “for each major area, e.g., systems integrators or storage, we will work with the two best vendors. This provides focus, without making us totally reliant on any vendor.”
6. Transparency and accountability: “Clear, open governance is expected. Individuals are accountable for achieving goals and providing early notice of difficulties.”
7. The project manager is king: “Success in IT depends on delivering projects. The key to success in projects is that the project manager is king.”

### 3.3 Phase 1: Organization and People (F03: Oct 2002-Jul 2003)

Mahler's first steps in the financial year ending 31 July 2003 (termed “F03” at Coles Myer) were to get “the right organization structure in place, with proper governance, processes and procedures”. With support from the CEO and the Board, he wrested control of all 900 IT staff from the various

brands and centralized them under his control. In addition, it was announced that henceforth “all decisions on software, systems integrators, and IT consultants are the responsibility of IT”. These two decisions, which “stepped on a lot of toes”, were not welcomed by the brand managers (nor by the vendors), but they gave Mahler full control of IT.

His next step was to find “the right people for the right positions” for the huge job ahead. All staff in the top three levels of IT management under Mahler were asked to apply for new jobs. Having learnt from difficulties when hiring staff for a similar transformation in his prior role as CIO at Belgian telecom provider, Belgacom, from 1999 to 2002, Mahler arranged that all applications and interviews were coordinated impartially through a personnel consulting firm. By March 2003, Mahler had chosen his eight direct reports, six external and two from within the existing IT function. Lists of suitable names were then presented to the direct reports, for them to choose their own teams. And so on down. To attract the very best people, Coles Myer paid “top dollar and then some”. Staff below the top four levels were advised that they would be helped in retraining as systems and business analysts as Coles Myer moved from a programming “shop” to a systems-integration role, dominated by project management, architects, and systems integrators. Thus in the financial year ended 31 July 2003 (F03), with some continued hiring in the next financial year (F04), the IT organization went through one of the biggest “spill and fill” processes of any IT organization in Australia. Over 2000 interviews were processed. Three hundred people were made redundant.

In Mahler’s view, the culture of the new IT organization had to be dramatically modified. It had to change from (a) an inward looking to a customer-service, delivery-focused attitude, (b) a “build” mentality to a “buy” mentality, and (c) a technology focus to a business-systems solutions focus. Effort was put into creating a more innovative, risk-taking culture throughout the IT organization. Low-level programming tasks were to be outsourced to “body shop” organizations in Australia, India, and the Philippines. Strategic partners from major international IT consulting firms were to be engaged to assist with thought-leadership and to lift skills. Major steps to make this happen began in this first phase, i.e., in the financial year ending 31 July, 2003 (F03).

### **3.4 Phase 2: Building the Foundation (F04: Aug 2003-Jul 2004)**

Once the IT organizational structure was in place and Coles was well under way in hiring and assigning people to functions, the IT group set about putting together the strategy and roadmap for upgrading its IT infrastructure and applications. In September, 2003, one year after Mahler’s arrival at Coles, presentations—which included Figures 2 and 3—were made to the board, the top-200 Coles executives, and as mentioned earlier, to stock-market analysts. The presentations outlined plans for simplifying and improving IT systems in Coles. The message was that Coles had too many obsolete and stove-piped IT systems, too much complexity, and that there was a need to transform these systems to look like those of Walmart and Tesco if Coles was to compete. Mahler said to the business: “We are going to work with you to transform these systems, but we need you, the business, to engage with us in this journey.” The newly appointed Managing Director for the major Food, Liquor, and Fuel (FLF) division, the prime target division for the transformation, arrived in Australia in October 2003, so the stage was also set for the organization-wide transformation. The following five subsections describe the primary developments in the *IT* organization in Phase 2.

#### *3.4.1 Organizational Capabilities*

A number of organizational and enterprise-wide IT capabilities had to be addressed prior to addressing the business’ needs for their transformation. On the IT side, steps were taken to create a more professional IT capability, new governance structures, and greater business engagement. A Program Management Office (PMO) was established as a centre of excellence for project management and a coordinator of major projects. A uniform Project Management Methodology was adopted as standard for all projects. A new Strategy and Architecture function was established as a design hub. A formal, rigorous testing regime was established. And a standardised methodology was developed for project estimation. Business engagement was also strengthened and elevated by

“injecting” IT leadership into each of the brand-management teams so that IT had a “seat at the table” in business decision making.

### 3.4.2 Governance

A range of formal governance structures was developed for major and minor projects. Any IT investment over \$250K or 100 person days was considered a major project and assigned a project manager. Minor projects and “assignments” could, however, still be quite big pieces of work. Key governance committees and a brief description of each were as follows:

- **Resource Allocation Committee (RAC) chaired by the chief financial officer (CFO)**
  - to approve all IT capital expenditure over \$250K
  - Membership: CFO, CIO, 3 senior IT GMs, two finance managers
  - Brought discipline to the business units. Previously there had been no formal process for IT capital expenditure approval.
  - projects over \$5M required CEO approval and over \$15M board approval
- **Enterprise Architecture Review Group**
  - Membership: enterprise architects and key IT and business representatives
  - Responsible for the overall enterprise architecture
  - *Solution* architects were to be “joined at the hip” to the project leader for each project
- **Risk Management Group (RMG)**
  - Membership: CIO and four IT General Managers.
  - Met monthly to review progress on each of 150 or so projects
  - Reviewed 4-5 projects, each for about one hour. Project managers would leave exhausted.
  - Program office would review all project statuses monthly and grade them red, yellow, or green
  - Mahler personally reviewed red-status ones.
- **Project Audits (Health Checks)**
  - Independent external project audits, e.g., by leading local consulting firms.
  - Probably cost more than 1% of total project cost
  - Identified many problems before they got out of control.

### 3.4.3 Project Management

Mahler’s view was that success in IT depended on delivering projects, and that the key to success with projects was that “the project manager is king”. A project-governance template was developed. Each project had a similar high-level management structure: 2-4 senior business people, Mahler or an IT General Manager, the Head of Transformation Projects, a solutions architect, a systems-integration consultant, and the project manager. Beneath this were up to 200 people, perhaps one third from the business, co-located with other Transformation-team members. Through the next three years Mahler was involved on a daily basis with probably 3 to 5 different project steering-committee meetings.

### 3.4.4 Technical Capabilities

By September 2003, the IT organization had 600 staff plus 300-400 consultants. It had just gone live with SAP’s R/3 ERP merchandising system at the smallest brand, Officeworks. At the above-mentioned September 2003 meeting of the top-200 executives, the then Managing Director of Officeworks spoke very highly of IT’s contribution to his project. This helped to raise respect for IT with the other brand managers. Also by that time, a decision had been made to adopt Retek software for merchandising and Manhattan software for supply chain for the FLF business transformation. Both vendors were relatively small software firms at the time, but their software was the best available. These firms were also prepared to customize their software to meet Coles’ needs.

Other steps toward the IT transformation included building the technical foundation:

- A broadband communications network was rolled out to 2,100 sites across Australia (to all brands except Coles Express) upgrading bandwidth from 64k to 512k BDSL. This was the first



implementation of this kind of service in Australia and actually led to a reduction in telecommunications charges. As part of this upgrade, Coles also reduced the cost of in-store wireless communications from thousands of dollars to hundreds of dollars per year.

- Planning for the IBM’s Enterprise Application Integration engine (MQ) had been completed.
- In 2004, the brands were persuaded to invest in an Enterprise Data Warehouse (EDW). The EDW, from Oracle, was to provide one view of the customer. Within a few years, all customer information—credit cards, loyalty cards, purchases—from Coles stores all over the country was to be funneled into the EDW.

### 3.4.5 The IT-Organization Structure

By the end of July 2004, the IT organization was structured as shown in Figure 4. Not shown in this figure are the systems-integration consultants and outsourced activities. Each group in Figure 4 was managed by a General Manager who reported to Mahler. A number of these GMs had previously themselves been CIOs in other large Australian companies. Indicative staff numbers in each group are shown in the bottom right corner of each box. Projects, managed by the Program Management Office, drew staff as needed from the other groups. The majority of the Program Management Office worked on the transformation, and the majority of that work was directed towards the FLF (supermarkets) division.

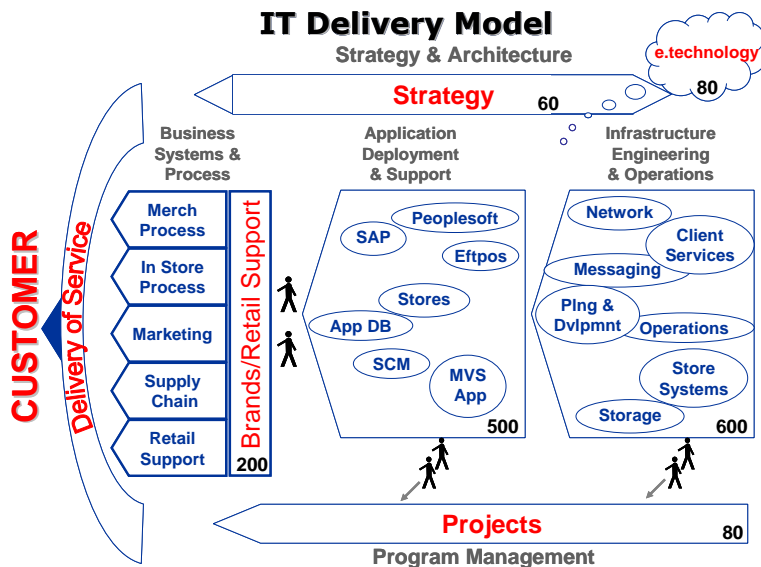


Figure 4: Coles’ IT Function in 2004, showing approx. staff numbers in each area (Source: Mahler)

### 3.5 Phase 3: Making it happen (F05: Aug 2004-Jul 2005)

With both the organizational and technical capabilities in place in the IT function, F05 was the year of “Making It Happen”. During this year the IT organization was involved in designing many applications. In F05, IT “delivered” 42 different projects, 13 of which were major projects. There were also two “core releases”, i.e., go lives, in the all-important FLF division.

#### 3.5.1 Rewards and Recognition programs

Within IT, a major issue had surfaced by mid 2005. The issue was: “How do we take care of our people and prevent burnout? How do we keep these people motivated in this long-term intense work on project after project?” Actions taken included:

- **Recognition:** “We appreciate you.” The “Star performer for the month” award was created.
- **Paid significant bonuses,** e.g., 10-40% of annual salary, paid to top three levels of IT management
- **IT-Career Planning:** Developed a manual documenting career paths. A mentoring program was created.

- **Leadership Breakthrough:** “This was a massive program involving 150-160 top people in levels 2 and 3. It ran for six months in the evenings.” “People loved it.”
- **Training:** “IT people are not motivated by money: Training plus the buzz of being on a big project is what motivates.”
- **Communication:** Mahler made quarterly trips to all five IT centers where he discussed openly the status of the business-transformation effort. IT also used the Coles intranet for its “It’s OK” and “Did you know?” pages.

### 3.5.2 Release Management

Because of the scale of the business-transformation program and the large number of IT projects involved, IT management realised that they would be delivering new functionality and projects to the business almost on a weekly or monthly basis in F06 and F07. Since this would have had a crippling effect, they decided to introduce a release-management concept. Multiple projects were aligned to have specific release dates.

### 3.6 Phase 4: Delivery (F06 and F07: Aug 2005-July 2007)

Whereas F05 was the year of “Making It Happen”, F06 and F07 were the years of “Delivery”. In F06, the IT organization “landed”, i.e., completed, 77 major projects plus 95 small projects. Unsurprisingly, not all these projects ran smoothly, but none were cancelled. An example of one distressed project follows. In one brand outside FLF, it became clear about six months into a \$20M project that some new internet-based technology from a major software vendor was causing problems. It had only been implemented once elsewhere in the world, and was not functioning properly. Working closely with the brand MD (CEO for the division), Mahler put pressure on both the vendor and the systems integrator to turn the project around. They did, but at a 20% cost overrun.

### 3.7 Phase 5: Consolidation (F08: Aug 2007-Mar 2008)

By August, 2007, over 120 projects had been “landed”. Most of the IT-systems plan envisaged in 2003 (see Figure 3) had been completed, and the remaining projects were on track. The IT infrastructure had been modernised, the main core systems such as merchandising, the supply chain, and financials had been modernised, and the data warehouse was collecting huge volumes of customer-loyalty data. The IT headcount, which had risen to approximately 2000 staff (including 40% contractors) was scheduled to drop by 40% over the next two years. Total IT costs, which had risen from 1% of revenue to 1.4% at the peak of the transformation, were also expected to drop to under 1% (i.e., by about A\$350 million per year) in subsequent years.

### 3.8 Takeover by Wesfarmers

In the five years, 2003-2007, Coles share price doubled. This was closely aligned with the rise in Australian All Ordinaries stock-market index, which also doubled. However, the share price for Coles’ main rival in the two-player oligopoly retailing market in Australia, the Woolworths chain, rose even more (by two and a half times) during this same period. In this buoyant market, and in face of its weaker performance compared to Woolworths, the Coles Group received a series of takeover offers during 2006 and 2007. In November 2007, Coles was taken over by Wesfarmers. Since Wesfarmers believed in autonomous business-unit control of IT systems, not a large central function, the takeover by Wesfarmers signalled a change of direction for Coles and its IT function. Thus by the end of 2007, the transformation of the IT function at Coles was over, and many IT staff were leaving for new jobs.

## 4 LESSONS LEARNT

The case study above offers a host of ideas and lessons for other CIOs asked to lead similar transformations, i.e., those where the goal is to introduce a step-change in IT project-management capability. Many of the steps discussed above, e.g., the spill of all jobs in the top three levels of IT

management and the establishment of the various governance structures could be applied directly in other similar IT-transformation programs.

In an attempt to glean additional insights from the case, we met for some hours with CIO Mahler in mid 2009 to identify what he thought were the key factors that drove the success of the IT side of the business transformation at Coles Myer. After much discussion, we distilled his thinking into the list of seventeen factors on the left of Table 1. The list is arranged in roughly chronological order. It is the CIO's summary of how to succeed in the transformation of an IT function like that at Coles Myer.

<b>Key Success Factor (KSF), from the perspective of the CIO (arranged into roughly chronological order)</b>	<b>Step in Kotter (1995) see Figure 1</b>
<b>1. Signal Change, Clearly and Overtly</b> <ul style="list-style-type: none"> <li>• Create a sense of purpose</li> <li>• Set specific and challenging goals linked directly to business vision</li> </ul>	<b>1. Establish a sense of urgency</b> (within the IT function)
<b>2. Set up for Success – Early</b> <ul style="list-style-type: none"> <li>• Make the difficult changes (e.g. structural/ decision authority/ processes) up-front. Strike while the iron is hot.</li> <li>• Make the big changes in the honeymoon period (you don't have the luxury later)</li> </ul>	<b>2. Form a powerful guiding coalition</b> (within the IT function)
<b>3. Define the End-Game</b> Lay out the Journey <ul style="list-style-type: none"> <li>• Need a clear simple IT architecture</li> <li>• Outline the steps</li> <li>• Show “there is an end”</li> </ul>	<b>3. Create a vision</b>  <b>4. Communicate the vision</b> (within IT)
<b>4. Set the Principles</b> <ul style="list-style-type: none"> <li>• The plan will change, but the principles do not, e.g., ‘buy not build’, ‘IT is accountable for technical (HW/ SW) decisions’, ‘the project manager is king’</li> </ul>	
<b>5. Fund IT as Part of Business Projects</b> <ul style="list-style-type: none"> <li>• “Make funding part of each business project.”</li> <li>• Not IT led. Managing Directors must have ownership</li> </ul>	
<b>6. Organise for Transformation: Change the Workforce</b> <ul style="list-style-type: none"> <li>• Need a different type of IT organisation for transformation versus business as usual</li> <li>• Change the people (bring in new blood, the right mix of skills)</li> <li>• The centre of power changes:               <ul style="list-style-type: none"> <li>○ Initially: Architects/ strategies</li> <li>○ Then: Program-Management Office and Project managers</li> <li>○ Applications development and Infrastructure (the traditional powerbases in an IT organization) become project resource pools</li> </ul> </li> </ul>	
<b>7. Set up a Professional Program-Management Office and Employ Professional Project Managers</b> <ul style="list-style-type: none"> <li>• Respect accreditation</li> <li>• Project managers don't necessarily need industry experience</li> </ul>	
<b>8. Change the Culture</b> <ul style="list-style-type: none"> <li>• Empowerment (from command and control, and being bullied and order taking, to empowered)</li> <li>• Change the relationship with the business</li> </ul>	<b>5. Empower others to act on the vision</b>
<b>9. Reposition Supplier Relationships</b> <ul style="list-style-type: none"> <li>• Closer and fewer</li> <li>• Invest in relationships</li> <li>• Two-vendor policy (to maintain competitive tension)</li> <li>• Keep IT-vendor management in IT (vs. central procurement and legal)</li> </ul>	

<b>Key Success Factor (KSF), from the perspective of the CIO (arranged into roughly chronological order)</b>	<b>Step in Kotter (1995) see Figure 1</b>
<b>10. Demonstrate Success</b> <ul style="list-style-type: none"> <li>• Deliver a big visible showcase (creates pride within IT)</li> <li>• Exercise your authority and new principles straight away</li> </ul>	<b>6. Plan for and create short-term wins</b>
<b>11. Have an Exceptions Process</b> <ul style="list-style-type: none"> <li>• Provide a mechanism for the business to get some small things quickly along the way</li> <li>• Allow this part to break the rules, e.g., rapid web development, use of application service providers (ASPs)</li> </ul>	
<b>12. Manage the Critical path – Focus on the Mission</b> <ul style="list-style-type: none"> <li>• Focus on change within each business area</li> <li>• Schedule the core components (e.g., merchandising, core-banking replacement) first</li> <li>• Fit in the supporting elements around it (e.g., Payroll, Finance, HR)</li> </ul>	
<b>13. Don't run over your people</b> <ul style="list-style-type: none"> <li>• Don't overload your key people</li> <li>• Separate projects, and invest in keeping them independent</li> </ul>	
<b>14. Keep Delivery Under 12 months</b> (deliverables every 90 days is good, but not always possible) <ul style="list-style-type: none"> <li>• Don't make any project over 12 months</li> <li>• Within 12 months, the business (and/or business leaders) will have changed</li> </ul>	
<b>15. Business Leaders must Learn to Say NO to IT Change Requests</b> <ul style="list-style-type: none"> <li>• Stopping change requests leads to faster implementation</li> </ul>	
<b>16. Stay Connected to the Top</b> (you can't expect to kick-start it and gather buy-in along the way) <ul style="list-style-type: none"> <li>• More engagement, Higher engagement, Align incentives</li> <li>• The Managing Directors (MD) will bring their people along</li> <li>• Be prepared to tell it how it is (put it on the line)</li> <li>• The business must pull, but IT still has to push</li> </ul>	
<b>17. Build in the Business Benefits</b> <ul style="list-style-type: none"> <li>• Have a clear business case. Focus on the business outcomes (versus IT efficiency or IT manpower savings)</li> <li>• Have benefits signed-up for up-front</li> <li>• A new MD means the current plan no longer has an owner ("this happened a lot")</li> </ul>	

*Table 1: IT-transformation success factors identified by ex-CIO Mahler in 2009*

Reviewing CIO Mahler's list of 17 key-success factors (KSFs) in Table 1, it is apparent that some factors, e.g., KSFs 5, 11, 15, 16, and 17, relate to the CIO managing relationships with the business, and others, e.g., KSFs 6, 7, 8, 9, and 13, relate to management of the IT function itself. This is consistent with Broadbent and Kitzis' (2005, pp.7-9) list of "top ten" CIO priorities, and the report by Weill and Woerner (2009)—based on a 2007 MIT survey of 1,500 CIOs—that found that, on average, CIOs spent about 40% of their time working with business colleagues (addressing business issues such as business strategy, business process design, regulatory compliance, and IT governance), and another 40% of their time "managing the IT organization and its people".

In the right-hand column of Table 1, we compared CIO Mahler's list of 17 key success factors to Kotter's (1995) process model from Figure 1. This analysis shows that the IT-leadership team executed the first six phases of Kotter's eight-phase model in exactly in the order specified by Kotter. Although the Kotter's phases 7 and 8 do not appear in Table 1, the case study above shows that they, too, were clearly important in the success of the IT-function transformation at Coles Myer. In other

words, it is fair to say that by Phase 5 (F08-F09) when 120 major projects had been delivered, Kotter's steps "Consolidating improvements and producing still more change" and "Institutionalizing new approaches" were part of the fabric of the new IT organization. So the fit between the actions of the IT-leadership team and Kotter's eight recommendations is remarkably high.

However, there was also a subtle twist to the Coles Myer story: unlike the transformational IT changes described by Roepke et al. (2000), Curley (2006), and Kettunen (2009) where change needed to be *institutionalized* for the long run, the task-force nature of the program at Coles meant that many of the IT staff were destined to leave once the job was done. In fact, by the end of 2007 (mid F08) many of the high-flying members of the IT team were moving on to new challenges. For example, a number left to become CIOs in other large Australian companies. Once the challenge is over, such disintegration of the IT taskforce would also be expected in all program-related IT transformations.

In addition to the 17 KSFs in Table 1, many factors discussed in the body of the case study were also clearly very important in transforming the IT function from an uninspired "keep the lights on and do it cheap" mentality (Broadbent and Kitzis 2005, p.13), to the IT-project powerhouse it became—relentlessly delivering project after project on time and to budget. For example, development of clear principles of project management and establishment of the four governance committees in Phase 2 were critical to the success of project management at Coles Myer and the delivery of 120 successful major projects by Phase 5. Likewise, the choice of organization structure for the IT function (Figure 6) and the establishment of the rewards and recognition programs discussed in Phase 3 were also essential to the development of the IT-project powerhouse that the IT function at Coles Myer became. Thus the whole case study above, not just the list of 17 key CIO success factors in Table 1, provides many lessons for guiding IT-function transformations in other organizations.

## 5 CONCLUSION

Organizational transformation is one of the hardest things an organization can do (Kotter 1995, 1996), and there is no reason why transformation of the IT function should be any less hard. This paper therefore contributes to the IS literature by presenting an in-depth case study of the billion-dollar systems transformation in one of Australia's largest organizations, the A\$30B-per-year retailer, Coles Myer Limited, during 2002-7. The case study provides unique insights into the way IT management built a well-resourced and high-energy IT team—at one stage with IT staff numbers exceeding 2,000—to support an attempted break-away business transformation.

Our first research question asked: "*What lessons can be learnt from the very successful transformation of the IT function at Coles Myer during their billion-dollar IT systems transformation in 2002-2007?*" Our answer is that, as suggested in the Discussion above, there are many lessons. These range from the many steps taken in the five phases described in the body of the paper (e.g., the formulation of the IT strategy, including the seven principles, discussed in section 3.2; the "spill" of all jobs discussed in section 3.3; the governance and project-management practices, and organizational structure discussed in section 3.4), and the list of key success factors (KSFs) in Table 1.

Our second research question asked: "*Was the transformation process used by the CIO and his team at Coles Myer consistent with the guidelines from Kotter (1995, 1995) as depicted in the process in Figure 1?*" Our answer is Yes. The discussion above (organized primarily around Table 1) shows that the management team at Coles followed all eight steps in Kotter's (1995) process model remarkably closely. However, in addition to Kotter's generic eight steps (six of which are highlighted in Table 1), Table 1 also documents a further 11 key success factors specific to IT transformation.

This paper is the fourth in a series of Australian case studies of (1) an ERP upgrade in a A\$7B-per-year organization struggling to remain profitable (Seddon et al. 2008), (2) realization of IT-integration savings following the merger of two multi-divisional insurance organizations with a combined market capitalization of A\$20B (Seddon et al. 2010), and (3) reasons why an A\$1B-per-year entertainment firm chose not to outsource IT (Reynolds and Seddon 2010). Together, they provide insight into IT decision making at four points along Broadbent and Kitzis' (2007, p.16) continuum: "fighting for survival", "maintaining competitiveness", and "breaking away" (this case being the breakaway).

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