PRODUCTIVITY – THE NEW CORPORATE IMPERATIVE

No organisation is immune from poor decision-making. An analysis of the problem – and a solution that overcomes the limitations of existing teaching/learning methodologies.

By Arnold Kransdorff

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University of Nottingham Business School
Jubilee Campus
Wollaton Road
Nottingham NG8 1HR.

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"IT’S VERY EASY TO BE WISE WITH HINDSIGHT"

An explanation of Experience-Based Management (EBM). Principles and practices for teaching better decision-making in organisations and in the education system

ABSTRACT

Both private and public sector organisations are facing a productivity challenge. The escalating pace of modern industry and the increasing political pressures to deliver better value public services has increased the requirement on managers to become better decision makers.

Teaching the craft of decision-making is not a dedicated subject in either the education system (including business schools) or in companies/the public sector. Its instruction is conventionally theoretical in nature, unstructured, informal and adventitiously subsumed into wider specialities such as marketing, strategy and leadership. This Paper will assert that the prime characteristic of all bad management is bad decision-making and propose that it should be elevated to a branch of teaching/learning in its own right.

The importance to any economy of good decision-making can be demonstrated very simply by its relative productivity. British government-acknowledged figures, for example, reveal that the UK is up to 44% less productive than many of its main competitors. This means that the nation’s material output is up to 40% less or up to 40% more expensive than the best (or a combination of the two), indicating that it costs up to 40% more to achieve the same level of output. Set against the value of investments in both the public sector (the Government’s planned tax spend over the six years from 2002 is £130 billion, for example) and the private quarter, the wastage of resources is astronomical at this level of un-productivity. It takes no rocket scientist to deduce that much of this shortfall is due to poor decision-making. Equally, no brain power is necessary to compute the advantages of not re-inventing the wheel constantly, not repeating the same mistakes over and over again and/or not benefiting from other unlearned lessons. If better decisions are the key to better value and a better bottom line – and so important as a management discipline - why, then, is decision-making’s teaching such a low priority?

The Paper will try to answer this question by suggesting that managers and educators prefer to leave decision-making to little more than intuition and successful corporate politics because no suitable methodology has yet been devised.
In the wider jurisdiction of management, this Paper will contend that commerce and industry – and the educators that prepare people for the business of business - have inexplicably ignored the importance of a vital component of production: the management of organisational memory (OM), without which decision-making becomes largely an instinctive exercise. The experiential element of an organisation’s intellectual capital, OM is the compilation of an institution’s experiences and knowledge that, today, walks out of the front door on average every three to four years at all levels of hierarchy. Organisation-, job-, time- and person-specific, it cannot be re-hired, with new appointees generally expected to assimilate it by osmosis. Without it, organisations can only benefit from others’ experience if they re-hire, which is not always relevant. OM’s value marks in part the capability of the organisation and is arguably the most important ingredient of its durability.

The dissipation of OM stems from a combination of factors, the main one being the modern flexible labour market which – until now - has been seen as wholly positive for organisations, allowing them to respond to changing market conditions at will. But the downside consequences that industry has yet to fully appreciate are deceptively damaging to productivity and competitiveness. Alongside the wholesale dispersal of an institution’s expensively-acquired knowledge and experience, it reduces the benefit of the traditional ways of disseminating experience such as mentoring, job-rotation and the creation of cross-functioning teams. Elsewhere, it guarantees continuous jobs disruption. Flanking this is the inherent short and selective memory recall of standing employees and their defensive reasoning processes, all of which contribute to what is known as corporate amnesia. The result for organisations? An inability to learn from their own experiences - and a conveyor belt of repeated mistakes, re-invented wheels, and other unlearned lessons. Institutional ‘forgetting’ is the single biggest constraint to decision-making excellence and a massive contributor to productivity shortfalls.

The Paper will outline the ice berg-like cost of corporate amnesia and disclose the sizeable extent of non-learning in a range companies, industries and countries. The choice of organisations in the US, Great Britain, New Zealand, Israel and South Africa as examples is intended to provide illustrative comparisons of a wide range of modern industry with relevance to most economies. The common theme is the disconnect between experiential learning and quality decision-making. The US is the world’s most productive and competitive economy but not exempt from repeated mistakes, re-invented wheels and other unlearned lessons. The UK (the 16th most competitive nation) is the oldest industrial economy with a history of poor productivity and relatively low levels of entrepreneurship. At the other end of the scale, New Zealand (the 19th most competitive nation) is one of the smallest economies with an acknowledged incapacity to create large businesses. South Africa (the 39th most competitive nation) is an emerging economy where much-needed entrepreneurship is uncommon while the new Black management cadre, which has little individual experience from which to learn, is purposely discarding the country’s prior know-how. In Israel (the 25th
most competitive nation\textsuperscript{5}), which is one of the more successful “new” economies, a failure to address a long-known deficit in marketing abilities, especially in the international arena, has contributed to a relatively high attrition rate of companies in the recent hi-tech and ‘dot.com’ crash.

It will then go on to explain how organisations can help improve decision-making processes through a technique called Experience-Based Management (EBM). Benchmarking is the process that generally focuses on how organisations can learn from external experiences. EBM concentrates on how organisations can learn from their own experiences - without having to give up the benefits of the flexible labour market.

In industry, experiential learning is confined to random, unstructured methods by individuals (e.g. “I list my mistakes and try not to repeat them”) and two little-used techniques of a more formal nature. Post-project reviews are usually used only to investigate large failures while Action Learning is an approach pioneered by Reg Revans in the early 1980s that generally uses a skilled facilitator to impose a discipline of self-reflection and analysis on team members of individual projects. None of the techniques specifically address the problem of imprecise recall contiguous with short and selective memory, defensive reasoning and departed employees, which underscores the main weaknesses of existing methodologies. The indefinite evidence that springs from whichever of these factors automatically flaws any potential experiential learning.

EBM is designed to overcome the limitations of existing experiential learning methodologies. Specifically, the Paper will explain the EBM Teaching/Learning Loop, a formalised six-stage circular sequence adapted from the models created by Lewin and Kolb in their non-business disciplines. It covers how to choose the experiences from which to learn, how to implement strategies that will help overcome deficient memory in formats that are also user-friendly for learning and how to construct the process of reflection to improve decision making. It supports the universal paradigm of progress being incremental and also that learning should be continuous.

EBM prescribes the process of reflective thinking in business that educators in both companies and business schools can use to teach better decision-making. Its base concept is not dissimilar to how soldiers are trained at military institutes like West Point and Sandhurst.

The Paper’s thesis is set against the background that in the West, the general perception is that knowledge is mostly technological and/or quantitative in orientation\textsuperscript{6}. Western rationalism is based on the theory that knowledge comes through deductive reasoning while Eastern empiricism reasons that erudition is derived inductively through actual experience\textsuperscript{7}. As such, managers in Western economies generally focus on technically-orientated, mainly explicit information encompassing rules, processes and the professional or
vocational information codified in manuals and texts, while the emphasis in Japanese companies, for example, is on the more implicit and ambiguous tacit knowledge, a characteristic that is deeply rooted in action as well as ideals, values and emotions. In this, the sharing of experiences and being constructively reflective is key. It is a belief embedded in their Zen Buddhism heritage.

Apprenticeships used to be Western industry’s main answer to tacit knowledge transfer. This applied only to the bottom of the seniority league and, with the exception of lawyers, doctors and some other professions, virtually came to an end in the 1970s at about the time the flexible labour market started to make long job tenure the exception rather than the rule. In Western education, teaching the next generation of businessmen and women how to benefit from experience is still largely a theoretical process, with educators wedded to methodologies dominated by macro-economics and quantitative analysis. By concentrating on data and information retrieval, mainly through sophisticated and expensive IT systems, even the newly-embraced techniques surrounding the esoteric subject of knowledge management do not fully address this issue. Both industry and education makes little formal effort to pass down “experience” from one generation to the next, least of all enable the rolling generations of employees to learn from that experience.

The consequences are encapsulated in the Paper’s title, which is a common lament throughout industry when things go wrong. “It’s very easy to be wise with hindsight” is exactly the idiom used by the chief executive of British-based The Equitable Life Assurance Society, the world’s oldest mutual life insurance company that is battling to find a way out of its £1.5bn (US$2.2bn) debt arising from guaranteed annuity policies. The new head of this 250-year-old company admits that the aggregation of risks within the Society “is something that should have been of serious concern”, an understatement that precisely illustrates the prime characteristic of all bad management – bad decision making.

In its wider treatment, the Paper will address several other central issues –

+ In formulating a systematic way to overcome the prevalent non-reflectiveness of managers, it will go to the heart of the debate between those who think industry can learn from the past and those who think that old lessons are misleading or irrelevant because times change.
+ At a time when most organisations’ first instinct is to turn to technology to improve their productivity, it will reinforce the importance of human capital, which in today’s hire-and-fire workplace at all levels of hierarchy, has assumed a disposable characteristic that shows no sign of abating.
+ It will give knowledge management an IT role beyond sophisticated data collection and distribution.
+ For the first time in the UK, it gives corporate and business/management history more than a narrow-interest application in education and industry.
+ It supports the widely-accepted paradigm that learning is incremental and should be continuous.
The proposition is that decision-making can be improved through EBM, a methodology that formalises a process that melds the East’s inductive and the West’s quantitative approaches. It is a structured way of applying one’s own and others' business experiences in industry and education. It involves formal techniques to capture important explicit and tacit knowledge that is organisational-specific, job-specific, time-specific and contextual in nature to enable more rigorous appraisal of the tried and tested past for more enlightened decision-making. Simply, it better professionalises the teaching and practice of business.
Arnold Kransdorff is the innovator of the business concept known as corporate amnesia. His book on the subject ("Corporate Amnesia", Butterworth Heinemann, Oxford ISBN 0 7505 3949 0, Cite Publishing, Taiwan ISBN 957-667-810-2), which addresses the wide neglect of corporate and business history as an educational and management tool, was short listed for the MCA's 'Management Book of the Year' prize in 1999 and selected as one of 800 titles worldwide to launch Microsoft Reader eBooks program in 2000.

A former financial analyst and industrial commentator for the Financial Times, the author has won several national and international awards for his work in management, among them Industrial Feature Writer of the Year (1981) and an Award of Excellence (1997) from Anbar Management Intelligence, the world's leading guide in management journal literature. A Visiting Fellow at Nottingham University Business School Institute of International Business History (UNIBHI), he has supervised a US doctoral thesis on Organisational Memory and is a guest lecturer at many UK and overseas business schools. He is also a regular speaker at international conferences, with his work widely published in academic journals, trade journals and the national press.

A book reviewer for the US journal Enterprise and Society, he is a member of the Association of Business Historians, the European Business History Association and the Business History Conference. He runs London-based group Pencorp, a business history publisher and knowledge management consultancy that helps companies better cope with imposed change and the stop-start consequences of a mobile workforce. Pencorp are leaders in the use of Oral Debriefing techniques in management development, succession planning and post-implementation reviews, and the production of corporate histories. Tel: (44) 020-8455 7828. email: ak@corporate-amnesia.com internet websites: www.pencorp.co.uk & www.corporate-amnesia.com
CONSTRUCTS AROUND WHICH THIS PAPER IS BASED

Short and selective memory recall. For conceptual advocacy of this phenomenon, Kantrow\textsuperscript{9} observes that “\textit{When we go to work, we forget}”. To Kantrow, managers' choices and actions may find a ready place in memory but the reasons and the intended significance of their deeds quickly float away out of reach and beyond recall. He observes that while all organisations have some form of recall, their memory is frequently inaccurate. “\textit{The style of a business presentation, the kinds of evidence that tend to sway decisions, the shared sense of what constitutes relevant information about a new market or product, the deep-seated visceral preference for certain lines of business – all these characteristics, and a thousand others like them, are the subtle products of memory. In no two organisations are they exactly the same, nor in any two parts of the same organisation. Intuitively we know this. But on the job we usually disregard it. In particular individuals forget both the density and duration of the activity underlying the surface facts. We forget that, like an iceberg, nine tenths of their mass lies hidden, well below the normal waterline of vision. And we forget that the part we can see is not just 'there' but is very much something built, something constructed or pieced together over time}”.

How this forgetting extends to the corporate level is corroborated by international management consultants McKinsey & Co.,\textsuperscript{10} which observed in the context of one business area: “\textit{Companies without practical mechanisms to 'remember' what worked and what didn't in the past are doomed to repeat failures and rediscover successes time and time again. As the industrial battles of the past decade have shown, competitive success often rests on world-class manufacturing - and that, in turn, on engineering capability. All too often, however, that capability is both poorly leveraged and poorly maintained. Companies regularly 'forget' what they have learned in earlier generations of product design. Worse, they do not organise to build, capture, or make easily accessible their hard-won store of engineering expertise}.”

Defensive reasoning. This phenomenon is reinforced by a substantial body of academic research into organisational learning, much of which confirms the reluctance of companies and their managers to objectively examine their performance, especially mistakes. Argyris explains\textsuperscript{11} that whenever a manager's performance comes under scrutiny, the individual begins to feel embarrassed, threatened and, because they are so well paid, guilty. “\textit{Far from being a catalyst for real change, such feelings cause most to react defensively. So, when their learning strategies go wrong, they become defensive, screen out criticism and put the ‘blame’ on anyone and everyone but themselves. In short their inability to learn shuts down precisely at the moment they need it the most}.”
The on-the-spot view puts the reason down to a particularly well-developed managerial ego. Commenting on the difficulties of teaching managers how to learn, a top US industrialist describes the apparent amnesia evident in many of his top employees. “For many years I have been troubled by the inconsistent attitudes of high-achievement professionals who have superb intellects yet appear not to learn from experiences or colleagues,” he observed. His explanation is that professional service companies in particular attract what he calls “the stereotypical self-motivated, supercharged MBAs whose past successes build their defences against being incorrect, hence against any need to learn or change. I suspect that the defensive reasoning process is well developed early in the life of a high-achievement person”.

The flexible labour market. This is a phenomenon that emerged in the 1970s. Intended to provide organisations with a measure of flexibility to adapt to rapidly changing conditions in the market place, it was industry’s reaction to the inflexible labour policies advanced by organised labour, in itself a response to the earlier hire-and-fire policies of management. The US heads the world discontinuity league, followed by Australia, the Netherlands, the UK, Canada, Switzerland, Finland, Norway, Spain, France, Germany and Japan. Since these ranking were published in the early 1990s, job tenure has further declined, in some geographical areas quite markedly. In the UK, for example, the number of different employers that new entrants to the labour market will have over their average 44-year working lifetime is put at 11, giving organisations a typical 4-year tenure for their employees.

Up to now, the flexible labour market has been seen as wholly beneficial, allowing organisations to respond to changing market conditions at will. With annual staff turnovers of 25% not unusual, many companies actually “boast” about their flexible labour policies. But the consequences are deceptively expensive. Short job tenure automatically restricts the benefit of the traditional ways of disseminating experience such as mentoring, job-rotation and the creation of cross-functioning teams. Elsewhere, it guarantees continuous jobs disruption and the wholesale dispersal of intellectual capital called Organisational Memory (OM), which keeps walking out of the front door. As such, many industrialists are beginning to question the wisdom of this seemingly unstoppable trend and to try to find a way of mitigating its downside effects.

Just one example of the growing sentiment against low staff tenure comes from New Zealand, which has been relatively late at following the lead of companies elsewhere. A firm of international headhunters, whose interests would hardly be served by discouraging the flexible labour market, warned in 2001 that staff turnover was “way too high”. They found that some industries – for example tourism, the health sector, IT, advertising/marketing and retail – had staff turnovers in excess of 20% and up to 37% a year, the former frequently coming in above the recognised danger level of 15%.
Although the full downside is difficult to evaluate accurately, several academics and organisations have tried to quantify the costs of staff churn. In one research exercise[^16] that was subjected to an interruption after 12 weeks over a 50-week period, the calculation was that project performance could be expected to retrogress to 52% of optimum output. Elsewhere, estimates[^17] in the US of costs (which included direct expenses associated with replacement hiring and training, lost productivity associated with a vacated position and the lost productivity of peers and subordinates), put the figure as a percentage of annual pay at 46% for frontline employees, 176% for IT professionals and 241% for middle managers. Neither computations took into account the potentially much larger additional indirect costs of any repeated mistakes, re-invented wheels and other unlearned lessons. Even if one offsets the undoubted benefits of the flexible labour market, these accumulated consequences on an average 20% employee turnaround every year – in some companies and industries this is much higher - can’t be ignored if managers are truly concerned for the bottom line.

**Organisational Memory.** OM is the experiential component of an organisation’s intellectual capital. It is the aggregation of the institution’s experiences and knowledge that is specific to the organisation, a job, a time frame and an individual. It cannot be re-hired, with new appointees generally expected to assimilate it by osmosis. It is inextricably bound up in an organisation’s history.

To fully understand its nature, it is necessary to understand the difference between data, information and knowledge, and the distinction between explicit knowledge and tacit knowledge. Data is a fact depicted as a figure or a statistic. Data in context - such as in a historical time frame - is information. In contrast knowledge - around which OM is constructed – is interpretative and predictive. Its deductive character allows its owner to understand the implications of information and act accordingly.

Knowledge is made up of explicit knowledge, sometimes called skilled knowledge, and tacit or cognitive knowledge, sometimes known as "coping skills". The former is the type of knowledge such as the professional or vocational skills that is recorded in the abundant manuals, text books and training courses available while the latter, much of which is implicit and ambiguous, is acquired largely by experience that is functional and context-specific. Typically existing only in the minds of individuals, tacit knowledge is normally very difficult to capture. It is through tacit knowledge that most erudition takes place.

Whilst explicit knowledge can be described as the ‘what’ of know-how, tacit knowledge is the non-technical ‘how’ of getting things done, what Edward de Bono calls ‘operacy’ or the skill of action, and what Drucker identifies in the use of the word *techne* (the Greek for ‘skill’). OM’s awareness provides the type of expertise that is both an organisation’s adhesive that helps keep the institution together and its lubricant, allowing for its smooth and efficient operation - i.e. it relates to all the routines and processes (formal or otherwise) that
make an organisation tick. In broad brush terms, it includes the individual’s understanding and accommodation of their employer’s individual corporate culture, management, communications and decision-making style, contacts and relationships between employees or teams of employees, the detail of job-related events and the knowledge of tried and tested usage as it applies to the organisation’s own market circumstances and special environment (so-called episodic knowledge).

OM is the type of knowledge that enables a good theoretician to also become a good practitioner. Without it, organisations - even if they employ the most qualified people in their field - run like a gearbox without oil.

The qualitative application of knowledge is closely allied to memory, which is most commonly described as knowledge retention or the difference between having acquired knowledge and having to re-acquire it. It is what is not forgotten; the reconstruction of experienced events. Add to this the fact that in business - like life - decisions are invariably better made with the benefit of hindsight, OM’s value represents the capability of the firm and is perhaps the main ingredient of its durability.

For practical purposes, OM can be broken down into three time frames. Short-term OM lasts up to about five years; medium-term OM occupies a time frame of up to around ten years, with periods in excess of this constituting long-term OM. Because of its contemporary and contiguous nature, short- and medium-term OM is generally more relevant to operational issues facing the organisation, whilst long-term OM is more conformant with strategy and culture.

**Corporate amnesia.** This refers to the loss of organisational memory that is the result of inherent short and selective memory recall by individuals, their defensive reasoning processes when something goes wrong and the effects of the flexible labour market, the consequences of which reduces the body of evidence that an institution might have at its disposal to enable its staff to use for better decision making\(^1^8\).

**Experiential Learning.** This is the process of learning from one’s own and other’s experiences through recall and reflection, out of which comes the knowledge variously called ‘wisdom’, ‘hindsight’, ‘insight’, ‘good judgment’ and ‘20:20 vision’. The former is widely neglected while the latter gets some attention through the discipline known as benchmarking, the process of looking outwardly to identify and adopt best practice. This Paper focuses on how organisations can learn from their own experiences.

In its modern conception, experiential learning first emerged in the fields of psychology, philosophy and physiology through the work of Piaget\(^1^9\) and then refined by the likes of Mezirow\(^2^0\), Freire, Dewey\(^2^1\), Lewin\(^2^2\) and, more recently, David Kolb\(^2^3\). They all recognised the importance of experience as the starting point for erudition and that its lessons can help improve on both success and failure.
This Paper asserts that prior experience is first and foremost a knowledge resource. If experience can’t be recalled accurately and in context, it might as well never have happened and the opportunity it might otherwise provide for learning is forfeit. Simply, its disregard diminishes the scope to shape today’s decisions for tomorrow’s world, the point being that rigorous evidence provides the basis and the opportunity for improved human understanding of the decision-making process, out of which can emerge better future decisions.

The Paper addresses these two related aspects - how to overcome imprecise recall in formats that are also user-friendly for learning and – by adapting the learning models created by Lewin and Kolb in the non-business world – how the evidence can be applied with a view to enabling better decision making.

In education, teachers in business schools would probably insist that they are using experiential learning techniques when they use case studies. Almost invariably, however, case studies are no more than summarised snapshot examples to explain the workings of some functional management discipline. It is an approach that also inescapably disaggregates their inter-relationship with other management factors, influences and disciplines. The wider contextual picture illustrating the more complex and intimate nature of running a real business is studiously avoided. The educational approach to learning is endorsed by Brookfield’s observation that teachers tend to be so concerned with presenting information that they overlook student needs to reflect upon it. His view is that students need “interplay between action and reflection”, proposing that curricula should not be studied in some kind of artificial isolation, but that ideas, skills, and insights learned in a classroom should be tested and experienced in real life - i.e. students need to be given the opportunity to reflect on experience. Formal study is “thus reinforced by some appreciation of reality”. Although his remarks refer to the classroom, the same sentiments would apply to experiential learning in the corporate environment.

Industry uses a range of experiential learning techniques, few of which are employed to any great extent and with any great rigour. Against this infrequency and inattention, the most common is the post-project review, when an organisations’ senior managers evaluate post-event performance using archival evidence and decision makers’ recall after the event, usually when projects go badly wrong. Even when the analysis is done more conventionally by academics or management consultants, they are approaches that suffer from Kantrow’s short and selective memory recall and Argyris’s defensive reasoning processes, drawbacks that often mean that their reports depend largely on the experience of the academic or management consultant than on the actual experience of the institution/project. One critical view of traditional consultancy reports comes from a Ford executive, who describes them as “formulaic”. They can put “too much of their own spin on a story.”
Another little-used method that uses organisational memory as the learning medium is mentoring, the West’s replacement for the old apprenticeship system. Usually, senior managers “adopt” high flyers and take personal responsibility for nurturing their careers within an organisation. Other approaches that allow experiential exchanges involve job-rotation, the creation of cross-functioning teams, the overlapping of exiting and incoming employees and orchestrating social events in the corporate setting. These approaches are probably the more efficient at allowing experiential dissemination but their efficacy is often imperfect because of the highly selective nature of the experience passed across by knowledge owners and the unreliable and biased memory recall of the knowledge receiver. The fact that individuals now only stay with their employer for short periods is also a major inhibiting factor.

Of the more formal approaches is “Action Learning”, an approach pioneered by Reg Revans in the early 1980s that generally uses a skilled facilitator to impose a discipline of self-reflection and analysis on team members of individual projects. Because its employment is confined to real-time work situations, it does not have much application as a teaching tool in business schools, although some educational institutions have experimented using contrived simulations and role plays as the learning medium.

It is instructive that while experiential learning can take place from both success and failure, failure often provides the more productive medium. This is backed up by the experience of researchers at Xerox who, after studying the record of three of its troubled products, concluded that “the knowledge gained from failures is often instrumental in achieving subsequent success. In the simplest terms, failure is the ultimate teacher”, a sentiment articulated by a recent book on high flyers, in which the author says: “Learning from failures can prove essential for a successful career. The real leaders are those who learn from experience and who remain open to continuous learning”.

Other definitions: In modern day usage, hindsight has two meanings. Its prescribed definition is the perception of the significance and nature of events after they have occurred. Its other connotation is rear sight or the knowledge of prior experience. In industry, this is otherwise known as corporate and/or business history.

The former is the memoir of individual companies or other institutional bodies. Done well, it places the organisation’s experience in a sequential context within its own competitive and geographical environment. Wider business history is the more general historical study of the subject that builds a general appreciation of the contribution of single enterprises into the wider sector, industry and national economic context. At Harvard, the only business school where business history is a compulsory component of all first-year teaching, the genre has largely divorced itself from wider-based economic history, business history being
more management orientated. Other definitions of business history include the ".... systematic historical studies of business behaviour, structures, and policies, and their consequences for the economy as a whole" and "The micro-economic study of individual risk-bearing entrepreneurs and their decision-making and innovative measures, and the macro-economic relationship between corporate size, business policy, internal organisation and the performance of the economy concerned".

Related to business history is economic history, which is the only type of history that features to any extent in conventional business education, deals with mainly macro fiscal issues as they affect national and international constituencies. Over the past two decades, economic history has become increasingly unpopular with students. In many universities, economic history departments have been closed down.
WHY EXPERIENTIAL LEARNING?

From Francis Bacon ("Histories makes men wise") to Winston Churchill ("The further backward you can look, the further forward you can see.") and Spanish-born US writer and poet George Santayana, whose more famous quote on the subject – "Those who cannot remember the past are condemned to repeat it" - was used by historian William L. Shirer as an epigraph in his 1959 book on "The Rise and Fall of the Third Reich", experiential learning is not exactly an alien concept in the non-business world.

But why so in industry, commerce and business academia?

The answers are obscure, probably bound up in the fact that the concept is still relatively new in other disciplines and has not yet transferred to business proper. Like most answers, a clue may also reside in history itself. In the changing times of the late 19th Century, emerging business was a political football, as subsequent political developments showed in Eastern Europe. The first literary portrayal of businessmen in the modern era - and the companies they created - were highly unflattering. With the example of imported European attitudes to support it, popular journalism and academia in the US started to take an interest in the corrupt practices of businessmen; the perception emerged that they were "robber barons," a viewpoint that was propagated around the world until well into the first half of the 20th Century and, to a lesser extent, even later with the rise of multinationals. As such, businessmen, the central figures in the drama that is industry and commerce, are extremely sensitive to how their activities might be picked over and respond by turning their back on any reflective processes. Alongside this is an inbuilt inclination by businessmen to only admit to success, a reflection, perhaps, of individual insecurities and the perception of society’s non-forgiving attitude to failure.

Ironically, it is arguable that their defensiveness has, in fact, contributed to anti-businesslike attitudes. Some novel research recently by a free market think-tank found that people generally picked up their ideas about business from sources like radio, television and literature. Almost without exception, the great English novelists from Jonathan Swift in 1710 to Martin Amis almost 300 years later projected commerce and industry as oppressive, humiliating and dangerous, and business people as venal, corrupt, self-seeking and unimaginative. If, as the research suggests, fiction can be instrumental in shaping public attitudes so unhelpfully in the wealth-creation process, non-fiction in the shape of good corporate and business history - and learning through reflective thinking - could have been just as effective at helping to redress the balance.
But whatever businessmen’s sensibilities, the fact remains that learning is not a controversial issue in the pursuit of better business. The more appropriate question is how best to teach and learn? Using the logic of the following non-educational analogy, the appreciation of prior experience is like the rear view mirror on a motor car. Without it, one has to continually crane one’s head to make navigational decisions. At best, drivers get themselves a stiff neck. At worse, they can have a fatal accident, a precept characterised by the observation of Harvard scholar Alan Kantrow, who says\(^{31}\): “Like it or not, the past infects the world we live in, the decisions we make, the very choices we see to lie before us. If we ignore its influence, we do not escape its power. All we do is remain to some extent its prisoners without ever really knowing that is what we are.” The consequential prospect is appositely conjured up in one of English novelist J.L. Carr’s texts\(^{32}\): “You have not had thirty years’ experience. You have had one year’s experience 30 times.” At its most simple, the proposition is that an appreciation of tried and tested experience – call it practice, know-how, procedure, even history – facilitates that innate advantage called inheritance. This is not to suggest that the motivation of recall is purely to facilitate repetition. Only that without a knowledge of experience, one has to start from scratch every time one makes a decision. Given that organisations have already paid for their experiences, probably many times over, why pay again, and again and again?

For industry validation of experience’s importance, some further research is instructive. A recent study\(^{33}\) by the National Westminster Bank disclosed that more veteran companies in the UK failed in the early-1990s recession than in any other previous economic slump in the 20\(^{th}\) century. A massive 10% of firms that had survived two world wars, the bleak 1930s depression and the succession of subsequent cyclical downturns crashed between 1989 and 1993. Why were they unable to survive this particular recession? Part of the answer - to this author at least - lies in the fact that the recession coincided with the height of the downsizing boom. This led to massive discontinuity – and an organisational memory that provided individual companies with little awareness of how they manoeuvred their way out of previous crises.
NON-LEARNING – COUNTRY EXAMPLES

Although institutions vary in their ability to benefit from hindsight, the picture of how organisations don’t learn from their experiences is not difficult to illustrate across a range of companies, industries and countries, both in the private and public sector. As the following examples relate, experiential non-learning in commerce, industry and the public sector is widespread.

USA

When it comes to non-learning, the Ford motor company illustrates the effects of one of corporate amnesia’s causes – the flexible labour market – in the production of its Taurus car\(^4\). The previous version of the car had been a big hit because it met the needs of big-car buyers better than most of its rivals. What happened was that it experienced a loss of its so-called design memory when it massively cut back on jobs in the recession of the early 1990s. As a result, the new model was largely re-engineered from scratch. Having ‘forgotten’ what its customers wanted, the result was a model that failed to capture the buyers’ imagination.

The price of forgetting - specifically how often dominant companies complacently ignore the effects of mature markets and new technologies – is illustrated at IBM\(^5\), another of America’s more successful companies. In the 1980s a smug Remington yielded dominance of the typewriter market to the electronic age - and IBM. Almost immediately IBM made the same expensive mistake by reacting inappropriately to a technology that threatened its own core business. On the surface it simply misjudged one of its product’s life cycles but in reality, it mishandled the emergence of personal computers, under-rating vastly the impact that they would have on its larger mini and mainframe businesses. A memory of how Remington reacted to similar conditions might have encouraged IBM to give its originally independent PC unit a longer life – and avoided the US’s biggest annual corporate loss of $4.9 billion in 1992.

In fact, a better memory of the slightly longer past may have helped IBM to avoid the crisis in the first place. Before the computer age really took off, IBM always perceived itself as a service organisation that provided information technologies to large companies. It is arguable that the company’s problems occurred when it began to believe it was a computer company. It returned to profitability when it returned to first principles.

Elsewhere, a large US insurance group points up a similar case of forgetting\(^6\). Having slimmed its claims department, it found it was settling big claims too swiftly and too generously. It discovered it had sacked
several long-term employees who had created an informal – but highly effective – way to screen claims. It subsequently reinstated them.

**Great Britain**

In the UK, logic would suggest that the world’s oldest industrial economy should have some experiential advantage over its competitors. Yet its productivity is up to 40% below the US, Germany, France, Holland, Canada, Ireland, Singapore, Hong Kong, Finland and Luxembourg. Alongside this, it is ranked just 13th out of 17 industrial nations in its ability to derive commercial benefit from science and technology. Alongside a global survey of respected companies that puts the highest ranking UK business at 21st, a business school survey showed that just 2% of British companies are world class. Ranked against 16 European countries, per capita income in the UK is 10th just ahead of Ireland and Italy – little changed in any of the years 1992 to 1997. The production of machine tools is a key bellwether of any highly industrialised country. In the 1960s Britain was among the world’s biggest producers. In the year 2000, British companies had the worst performance of 15 large west European countries, being the only country to record a fall in output. It now ranks 6th behind Germany, Italy, Switzerland, Spain, France, Japan and the US. Exeter University's Professor John Adair’s assessment of the UK’s managerial abilities are: "Any leaders Britain does have are a result of accident, not design". As already indicated in this Paper’s Outline, the latest figures shows that the UK ranks 16th in world competitiveness, below the US, Germany, Holland, Canada, Ireland, Switzerland, Sweden, Singapore, Hong Kong, Finland and Luxembourg. This is slightly better than New Zealand, Chile, Spain and Israel.

These macro figures – and individual commentaries on the UK’s decision-making skills - are borne out by the micro picture.

+ In a British Airports Authority (BAA) market test to compare building costs in another country where labour and material costs were similar to those in Britain, US contractors were asked to tender for an office block identical to a development already underway at Heathrow for British Airways. Built to US designs and specifications, the American building came out 32% cheaper, thanks to the US architects and engineers spending less time “re-inventing” wheels. Overall in the public sector in 2001, the UK Government’s National Audit Office found that slightly less than 75% of building projects were either over budget or overdue.

+ Over budget and over due were (and are) also characteristics in individual projects such as the Channel Tunnel and its rail link, the British Library, Concorde, the Limehouse Link road tunnel, the Cardiff Bay Barrage, the Luton Airport extension and the Scottish Parliament. The
experience of several of London Transport’s projects over the 10-year period to 2000 is particularly striking. Against the background of managers’ insistence of long-time under-funding on the London Underground, the National Audit Office’s conclusion that much of the £10bn investment on the Jubilee Line Extension, the Docklands Light Railway and the wider tube system - equivalent to more than 10% of the entire public sector investment during the period – was wasted because of a failure to integrate systems effectively. Where the story gets even more sobering is the conclusion by NAO that these performance failures will recur in future investment projects “because learning from one project was not easily transferred to the next”.

+ At the turn of the year 2000, 10 of the 27 planned millennial landmarks were similarly overdue or over budget, or both. This excluded the national showpiece Dome, which went on to have its own recurring troubles.

+ The finance sector is especially rich in examples, in particular banking, where the record of failures has left a decent trail of evidence that successive generations of bankers continually forget. A graphic instance, which illustrates both the magnitude of the phenomenon and its pervasive nature, can be seen in the banking crisis of the 1980s and 1990s. In the early 1980s the UK banking community was badly mauled by bad debts in South America. Less than 10 years later it was again overwhelmed, this time from loan defaults elsewhere in the Third World. Speaking in 1991, the head of one of the UK’s largest banks admitted there were plenty of historical precedents on Latin American lending which “should have put the red light up for everyone.” He added: “We have got to ensure that the lessons of the recent past are not forgotten by the rising generation of bankers.” As he was talking the banks were once again making similar errors of judgement - this time at home - with High Street lenders having to chalk up further provisions collectively totalling almost £4 billion in their 1992 accounts. This prompted one City analyst to comment that “The biggest worry is that banks do not seem to be capable of learning from their mistakes,” a warning echoed in 1994 by a banking industry think-tank that analysed the massive write-offs.

+ There have been continuous safety and punctuality issues on the railways under both public and private ownership.

+ Repeated problems with computer projects at the Passport Office, the Immigration and Nationality Directorate, Air Traffic Control and the London Ambulance Service. At the time of writing, a project to keep track of, and process, asylum seekers was suddenly axed; even
though it was deemed a failure, its private sector contractors had been awarded huge productivity bonuses. Also in the Home Office, a computerised database of dangerous offenders, which has had seven programme directors in seven years, is 70% over budget, costing £118m to date.

+ Sixteen of 20 weapons systems on order at the Ministry of Defence – among them destroyers, radios, rifles and radar - are overdue by up to five years. Costs are running £2.4bn ahead of the allocated budget.

+ Over in farming, the non-learning problem is endemic. BSE, eggs, chickens, vCJD, salmonella, e-Coli and foot and mouth have cost the nation dearly, the latter putting in a bill estimated in excess of £9bn. The BSE debacle is especially notable. In spite of the late and very detailed introspection into cannibalistic recycling, officials from the Ministry of Agriculture were admitting in 2000 that feed containing cows’ blood products, tallow and gelatin was still being fed to cows and other livestock, including newborn calves as a cheap feed to replace their mothers’ milk.

+ The UK’s National Health Service’s non-learning problems are no less relentless. It now ranks 18th in the world performance league behind countries like Italy, Spain, Austria, Norway, Portugal, Greece, Japan and Holland.

+ In the east end of London, the same road works have been jamming traffic for more than 12 years. In spite of complaints to Department of Transport officials and the private sector contractors, no workman has been seen doing any repairs for years. In north Wales, temporary traffic lights at one location have been in operation for a decade.

+ When it comes to the bedrock of wealth – the creation of new businesses – the UK also seems not to be learning. The birth rate for medium-sized companies is less than a third of what it is in the US, a measure that also lags behind Canada, Israel and Italy. A top Harvard Professor has described Britain’s poor showing as a generator of wealth in the following way: “It stinks.”

New Zealand

Unlike the UK, enterprising behaviour is not such a problem in New Zealand, at least on the surface. Whilst it registers near the top of the world rankings in enterprise creation (impressively, it is statistically higher
than even the US), it is near the bottom at taking start-ups out of the small business phase\textsuperscript{50}. This apparent paradox is corroborated by the typical corporate profile of a company in NZ; with an average organisational head count of just six people, a hefty 84\% of enterprises employ five or fewer full timers. And 60\% of new businesses fail after four years.

This uninspiring record is endorsed by the NZ Stock Exchange\textsuperscript{51} on which is quoted only 132 local companies, down from just 274 15 years ago (in the same period the number of Australian public companies totalled 1,334, up from 1,147). The average market capitalisation figures for NZ – up from $310 million to just $320 million over the past seven years - also indicate that local companies find it difficult to grow and create wealth, an unambiguous problem of experiential non-learning.

Over in the public sector, an example of repeated mistakes is evident from several major IT failures, where a study\textsuperscript{52} concludes that projects seem destined to stumble and fail with predictable frequency despite expensive enquiries, expert reports and declarations that lessons had been learned. Projects for the police, Accident Compensation Commission, the National Library and the Justice Department all collapsed at an estimated cost to the taxpayer of more than NZ$130 million. At least three other current projects are classified as high-risk and are being monitored to make sure that anything up to another $300 million is not wasted.

**South Africa**

In spite of its huge educational investment in the post-apartheid era, South Africa has an altogether different set of non-learning problems. Because of historical reasons, it has little business experience to learn from, accounting for its lack of instinctive enterprising behaviour and a widespread dependent culture.

It is an uncomfortable fact that the best endeavours of Government, external investment and the existing private sector can only employ slightly more than half of SA’s working population. The extent of the crisis is illustrated by official estimates that just one in every 100 students who will matriculate will find gainful employment. Estimates are that SA needs at least 1m\textsuperscript{53} new small businesses to soak up the unemployment shortfall, a number that will take many generations to achieve without any specific experiential learning programmes (of which there are few).

National policy has been to displace White employees in favour of previously disenfranchised Black appointees in the public sector through what is called Affirmative Action, which has coincided with efforts to rationalise activities. Political motivations aside, what has happened is that much of the nation’s prior experience has been discarded. In human resource development, SA now holds the uncomfortable
distinction of being the most unproductive of 46 developing countries\textsuperscript{54}, a record that has only improved marginally in the post-apartheid decade.

One expensive example is the Government’s own on-going attempts at rationalising and downsizing the civil service, which has been calculated by its own auditors to have wasted R1bn up to 1995 alone and irretrievably damaged the nation’s financial management capacity. The Government has acknowledged that its best brains have literally walked out of the door, leaving their inexperienced stand-ins to re-invent what had already been learned at great expense. Much the same is happening in the Police Force and elsewhere in industry as Affirmative Action policies continue to be implemented across the work place.

In addition to discarding its local experience, SA appears determined to also shun overseas experience, specifically that considered Euro-centric or colonial in origin. It is a policy that stems from Prime Minister Thabo Mbeki’s conception of – and call for - an African Renaissance that aspires to the development of local solutions. Again, political motivations aside, the result has been to further widen the productivity gap to the extent that it has produced an outspoken appeal\textsuperscript{55} from one of the country’s top business leaders not to ignore the benefits of outside experience. “The same basic management tools work across the planet, so there is little point in trying to reinvent the wheel. Executives in countries as diverse as the US, South Korea, Germany and Chile now apply the same techniques, so copying them is smarter than seeking nirvana in some new fad. It is vital to accept and respect the differences in people and their cultures. But companies should beware of falling for ill-defined notions of ‘African management’ ……”

\textbf{Israel}

While SA appears to want to start from almost scratch, Israel’s record is more acquisitive when it comes to utilising others’ experience. It started off as an under-developed country just 54 years ago. By acquiring skills and experience in large measure – mainly through immigration - its economic development now ranks high among OECD countries, a strategy that echos America’s stratagem over the past 150 years. In the learning stakes, however, it is not all plain sailing.

For almost a decade, the emerging hi-tech industry has been running at a pace that has now outstripped the traditional agricultural sector, where marketing skills were always weak, especially in the global arena\textsuperscript{56}. This weakness has carrier over into high-tec, where large numbers of start-ups have not been able to survive the recent hi-tech and ‘dot.com’ crash. Acknowledging this limitation, one of Israel’s leading technology investors is on record as saying: “It is painful to see a new generation of entrepreneurs in the Israeli high technology sector repeating the mistakes of their predecessors. These mistakes may lead to either complete failure or the inability to leverage the technology advantage into global leadership.” In the
two years to mid-2002, an estimated 15,000 high-tech workers were laid off, most of them in start-ups and small companies.\textsuperscript{57}

Not learning from experiences also extends to Israel's construction industry. For more than 30 years it has continued to employ a low-paid, poorly trained work force, with the result\textsuperscript{58} that local contractors are finding it increasingly difficult to meet the high standards demanded by international developers.

After the Six Day War in 1967 and the capture of the West Bank and Gaza, it replaced its own workforce with unskilled and cheap Arab labour. After the 1987 Intifada, Israel started to replace them with tens of thousands of workers from eastern Europe, Turkey, Africa, Asia and elsewhere without checking skills or previous experience. By the admission of one of its foremost consultants\textsuperscript{59}, building quality is "\textit{horrific}"\textsuperscript{59}, with costs 25\% more than in the US and construction times taking three times longer. Israeli training is so backward that young carpenters still learn to make formwork with old 2x4s tied with metal wire. Yet the Israel Ministry of Labour, which is in charge of worker training, prefers to focus on collecting fees by issuing permits to contractors to bring in more foreign workers.

Though the construction unions enjoy influence in other sectors of Israel's economy, the country also refuses to accept help from the US, which has offered to bring modern apprenticeship training programmes to Israel and integrate these into government-run craft training schools. The consultant, the head of a large engineering consultancy to many of the contractors working on the over-budget and over-due $500-million expansion of Ben Gurion International Airport, reports that contractors simply accept the labour inefficiencies, telling project owners that slow work and poor quality are "\textit{just the way it is in Israel}!"\textsuperscript{59}. He says the situation will probably deteriorate further, "\textit{and Israel's addiction to cheap labor will continue to feed on itself}"\textsuperscript{59}. 
LOOKING FOR 20:20 VISION

Post-project reviews are the most common formal format for experiential learning. As already pointed out, their use is infrequent in industry, with the main drawback being imprecise recall.

This notwithstanding, the UK petroleum exploration and refining company BP has a special post-project appraisal unit to review major investment projects, write up case studies and derive lessons for planners that are then incorporated into revisions of the company's planning guidelines. A five-person unit reports to the board of directors and reviews six projects annually. This type of review is now conducted regularly at the project level.

Yet another approach is taken by Chaparral Steel, a mini mill specialist and one of the largest US steel makers which is especially known for its 1980s innovations in horizontal casting techniques. Where Chaparral stands out from other companies is in the systematic way it selects projects and then applies learning from one project to another. It requires every project to advance the company's capabilities, and plans combinations of them in a logical flow to ensure that they do so. After each project has been completed, Chaparral analyses it to find out what it achieved or failed to, and why.

In their efforts to improve decision-making, General Motors and Hewlett-Packard use what they call retrospective historical analysis. GM systematically reconstructed the development of its “X” and “J” platform cars in 1981 to search for lessons about success and failure. These new cars, which had experienced severe quality, schedule and cost problems, had been rushed through the development process in the late 1970s to give GM fuel-efficient models at a time when petrol prices were high and volatile and when small foreign cars were successfully invading the US domestic market. Almost 80 managers were involved in the study to reconstruct the development process. The outside consultants which conducted the study uncovered a range of important deficiencies in GM's methods while many participants of the study “found their attitudes about project management and product quality transformed for the better, and the results are today visible in the high-quality rankings given to several GM models and manufacturing facilities”.

In Hewlett-Packard’s case, the company uses post-project reviews to internally benchmark its scheduling practices. In 1987 each of its 56 R&D centres was charged with doing post mortems on a number of their recent development projects. Events and processes seen as contributing to project scheduling failures and successes were then shared among all units.
Microsoft, which has a good record of learning from both within and without the organisation, has an integrated\textsuperscript{(63)} approach to its experiential learning. Part of the process is to deliberately learn from past mistakes, which occurs at regular post mortems at the end of each project and at which analysis takes place to extract lessons for future projects. Customer feedback is built into the design process through market research, customer support hotlines and usability testing. Input also occurs while the projects are underway in terms of metrics and quantitative measures.

One of the best examples of experiential learning is Boeing’s approach\textsuperscript{(64)} when it developed its latest generations of aircraft. Before the company started to evolve its 757 and 767 aircraft, a group of senior employees spent three years on "Project Homework" comparing the managerial failures and successes of past development processes. They produced hundreds of recommendations. Several members of the team then transferred to the 757 and 767 start-up projects. Guided by this experience, Boeing produced the most problem-free product launches in its history.

A more informal approach is taken by Michael Smurfit, chairman of the Jefferson Smurfit Group, who keeps a personal list of his mistakes to remind him not to repeat them. Believing that mistakes go hand-in-hand with risk, the paper packaging empire executive has bravely calculated\textsuperscript{(65)} that his blunders had cost the group £120m to 1997.

In a novel twist to the conventional way the lessons of experience are passed down from one generation to another, Roger Enrico, the chief executive of American soft drinks giant PepsiCo, spent several months before he joined the company in 1996 with nine corporate executives at his Cayman Islands home. At these meetings he passed on his own experiences. Part of the programme\textsuperscript{(66)} involved the executives working on specific projects, the lessons of which were then passed on to others.

Benetton, the Italian clothes company, intentionally learns from experience through trial and error, notably by experimenting and retaining what has worked at each stage of the company’s development. This is based on its refusal to accept established knowledge as the ultimate truth. Instead, its philosophy is based on the evolutionary principle that today’s process can be improved. The process\textsuperscript{(67)} starts with collecting opinions on a specific issue. These are then used to create a hypothesis about causal relationships. To confirm or disprove the hypothesis, data is then gathered and analysed to make their meaning clear. This is then repeated several times, each time improving the quality of the hypothesis, data, analysis and synthesis until the hypothesis is accepted as meaningful information. Based on this, decisions about the allocation of resources are made and implemented. Then the results are compared with the expectations and the
reasons for any deviation are reviewed. The new insights this produces are used to update the existing body of knowledge.
WHAT TO DO?

It is clear that not much learning from one’s own and/or others’ experiences is taking place or, when attempts are made to benefit from hindsight, the methodologies are – as already indicated – generally unstructured, informal, anecdotal and random. It is against this background that the question arises: how to implement better experiential learning programmes in industry and the education system? Specifically, what methodologies can be used that can improve the innate limitations of conventional experiential learning techniques, namely the inherent short and selective memory recall of individuals, their defensive reasoning processes, the corporate amnesia that this and the flexible labour market imposes on organisations and formulaic consultancy reports, and the non-reflectiveness of decision-makers. In a nutshell, how can better decision-making be taught?

In this, a six-stage sequence has been devised called the EBM Teaching/Learning Loop that has been adapted from the models created by Kurt Lewin and David Kolb in their non-business disciplines.

The EBM Teaching/Learning Loop

1. Choosing the experiences.

To learn from prior events, it is axiomatic that organisations have first to select the experiences. In this, the following broad principles can be applied.

(a) The ‘experiences’ should be those that the organisation considers could be improved upon - i.e. the quality of the output could be enhanced and/or the cost reduced. This could apply to everything from a rationalisation to a new product launch, from a strike to the employment of
university graduates. In their selection, identification could be on the basis of an audited result (for example, the latest product launch was twice as expensive as last year's product launch) or should be important in its own right (how, for example, auditors were changed or a new manufacturing outsource company was selected).

(b) The ‘experiences’ should be both a pronounced success or failure. It should be kept in mind that more can usually be learned from failures than successes.

(c) Although not exclusively so, when priorities have to be made, the chosen experiences should be ones that emanate from work areas that have a high rate of staff turnover, for obvious reasons. Once employees have moved, their OM is irretrievable. The level of staff churn can be established by undertaking an Employee Transit Audit and a Knowledge Map. The former assesses the level of jobs discontinuity across a workforce at regional, functional and departmental levels to identify the main areas of knowledge loss across an organisation while the Knowledge Map demarcates which individuals are the main knowledge owners who should be targeted for knowledge capture.

(d) When priorities are made, choices should not be confined to senior management. Lessons learned can often be just as valuable to an organisation when they emanate on the shop floor.

(e) The ‘experiences’ can be delineated into any number of categories, among them responses to internal issues (e.g. an increase in sexual harassment), responses to external issues (e.g. implementation of new Government legislation), defensive measures (e.g. price reductions), assertive measures (e.g. hiring in a skills glut), avoidable and unavoidable issues, non-profit issues (e.g. sponsorship/corporate social responsibility), new key appointments and key individual key projects.

2. Ensuring accurate recall.

The early theorists of experiential learning such as Saljo referred to inextricably bound up with memory and the ability to recall information. In the early 1980s, Mezirow and Freire established that erudition lay in the way necessary facts were acquired and how they were processed while Kolb (1995) refers to “observation” as the evidential part of the learning process. None questioned the inescapable relationship between the quality of learning and the accuracy of recall, which is patently affected by inherent factors like Kantrow’s short and selective memory recall, Argyris’s defensive reasoning and the corporate amnesia imposed on organisations by the flexible labour market.

By definition, the better the recollection the better the learning potential. Whilst most organisations can retrieve archival evidence such as internal and external memos, discussion documents and reports, the written word is invariably lacking in detail as well as the tacit content essential to good decision making. This can be salvaged through two knowledge management tools that, when done professionally, are arguably the most efficient way of capturing OM accurately (or as accurate as OM can possible get). The first is relevant to short- and medium-term OM, which is related to operational issues, while the second is applicable to long-term OM, which is more related to strategy. Both can be classified under the wider Learning Organisation’s precepts. Both are widely under utilised and under skilled.

**Oral Debriefing**

The first is Oral Debriefing, a technique that depends on skilful questioning of individuals to extract crucial knowledge. When captured on audio or video tape, these debriefings, along with existing archival evidence, can then be used as the evidential base from which to extract lessons to apply to other circumstances.

Oral debriefing is a methodology that is not new. Its modern roots lie in projects organised to preserve the reminiscences of former slaves and unlettered rural folk in the US. In the late 1940s Allan Nivens, a professor of history at Columbia University and a noted biographer, introduced oral history as a tool for serious scholarship and founded the Oral History Collection of Columbia University. Since then other universities, including Harvard, Princeton and the University of California, have also developed extensive collections of oral history.
In the early 1950s Nevins introduced oral history to industry when he organised the interview of more than 400 people for a history of the Ford Motor Company. Since then other companies have supported programmes of oral history, among them ARCO, Beckman Instruments, Bristol-Myers, Eli Lilley, Kaiser Aluminum and Chemical, Monsanto, Proctor & Gamble, Rohm and Haas and Standard Oil Company. Many have since discontinued oral history’s use as, in the words of Studs Terkel, perhaps the best-known exponent of the genre, “technology has become more hyperactive, we, the people, have become more laid back; as the deposits in its memory banks have become more fat, the deposits in man’s memory bank have become more lean. Like Harold Pimter’s servant, the machine has assumed the responsibilities that were once the master’s. The latter has become the shell of a once thoughtful, though indolent, being. It is the Law of Diminishing Enlightenment at work.”

Confirmation of oral debriefing’s diagnostic facility is reinforced by a sizeable body of academic research. In the context of a research project which examined the evolving competitiveness of nine firms over a 30-year period, the researcher reported that while written accounts may provide a more accurate representation of chronological events, the processes of managing change will frequently be unrecorded. Oral recollections, he said, “provided much which more formal written material did not. Oral history can be particularly important when trying to understand some of the forces for inertia and change which characterise every organisation.”

As a knowledge capture tool that is specifically used for learning, oral debriefing is today most used by the armed forces, where debriefings after campaigns – even after training exercises - are standard procedure in military institutions such as West Point in the US and Sandhurst in the UK. In industry its application is usually confined to the exit interview, typically as a formulaic, 20-questions means of trying to uncover reasons why employees leave. They are often done in questionnaire format, which usually generates short, mechanical and impassive responses. When undertaken orally, the interviewer is usually an unskilled employee of a company’s HR department. As a rule subjects are junior employees who leave after short tenure.

In contrast, the proposed oral debrief embraces rigorous research and is designed to encourage detailed responses. Its advantage is that individuals are generally better speakers than they are writers. Also, their spoken word is a more efficient way of conveying the abstract and complex nature of elements like the nuances of corporate culture, management style and the often obscure issues surrounding decision-making within groups. As such, it is an efficient way of filling the tacit knowledge gaps that otherwise exist in the written and remembered record.

The trick is in the interviewing. The better the questioner, the better the end product. To do it well, the interviewer needs to be highly skilled, akin to a good journalist, police officer or personal counsellor who, in addition, understands the meaning of tacit knowledge and who has a keen appreciation of management, psychology and the subject’s role and employer. The questioner’s role is as important as the interviewee’s.

Done well, the oral debriefs have several powerful corporate applications ranging from management development to lessening the effects of jobs discontinuity, improving induction and in project management.

To facilitate knowledge capture of short- and medium-term OM, formal debriefing programmes can be applied at several important stages of an employee’s tenure. Depending on circumstances, debriefs can be done either at regular intervals during an employee’s tenure (usually on an annual basis), when employees retire or leave to join another company or immediately after key projects. The principle is plainly demonstrated by the application in induction: capture the experience of the exiting individual for the benefit of his/her incoming replacement.

Some guidelines for the oral debriefer are as follows:
(a) All questions need to be based on rigorous research. To be incisively investigative, the debriefer must have an in-depth familiarity with the interviewee's industry, the company, the individual's job and the individual.

(b) It is usually best to construct a pre-interview interview plan that revolves around constructing relevant and perceptive questions around subjects like corporate culture, management style, decision-making techniques within groups, contacts and relationships between fellow employees, the detail of job-related events and tried and tested usage as it applies to the organisation's own market circumstances and the special environment and the wider organisation's specific experiences (so-called episodic knowledge). The objective should be to extract the singular things that makes an organisation tick, it includes the non-technical 'how' of getting things done, otherwise known as tacit knowledge.

(c) Using the Interview Plan as the starting point, the debriefer uses his/her judgment to ask supplementary questions to elicit answers that are otherwise unclear, fudged or avoided. The questions need to be designed to encourage detailed responses.

Corporate/Management and business history: The other management tool that is ideal for knowledge capture, specifically the long-term OM that goes back many years, is the humble corporate history, which is the most portable repository of an organisation's experiences. The rapid change of modern-day industry and flexible working practices have given it a new and vital corporate function beyond decorous public relations.

The most pervasive argument that supports the usefulness of longer-term OM recall is that the principle is already well established in the educational sector. Subjects like political, military and social history are an integral part of many general curricula. Elsewhere, musicians study music history, artists art history, architects architectural history and soldiers military history but for the people who have to go out and earn their livings in other ways - i.e almost everyone else - there is virtually no corporate and/or wider business history in the education system, even in business schools. The only history that does feature in business education, albeit in declining measure, is economic history, which deals with macro fiscal issues as they affect national and international constituencies, a discipline that is only remotely associated with the day-to-day running of a business. At Harvard, the only business school where business history is a compulsory component of all first-year teaching, the genre has largely divorced itself from economic history, business history being more management orientated.

The concept of using history - in particular 'old' history - as a learning tool can be demonstrated in the military, as recently as the 1991 Gulf War against Iraq. When General Norman Schwarzkopf, Commander-in-Chief, Allied Coalition Forces, was training as a soldier, one of the major components of his curriculum was military history. Of the wars he studied was the 218BC battle waged by the Carthaginian military genius Hannibal, whose tactics defeated the Romans and set up his assault on the most powerful empire of the age. “The first thing I ever learned in the study of military art was about the great captains - and the great captains start with people like Hannibal,” he recalled later. “We went back and looked at manoeuvres used by the ancients to win battles and more importantly the fundamental principles of war that caused them to prevail. Those same principles that applied to the days of Hannibal apply today. I learned many things from the study of the battle of Cannae that I applied in Desert Storm.”

In industry, the price of forgetting - specifically how often dominant companies complacently ignore the effects of mature markets and new technologies - is illustrated at Remington and IBM. In the 1980s a smug Remington yielded dominance of the typewriter market to the electronic age - and IBM. Almost immediately IBM made the same expensive mistake by reacting inappropriately to a technology that threatened its own core business. On the surface it simply misjudged one of its product’s life cycles but in reality, it mishandled the emergence of personal computers, under-rating vastly the impact that they would have on its larger mini and mainframe businesses. A memory of how Remington reacted to similar conditions might have encouraged IBM to give its originally independent PC unit a longer life – and avoided the US’s biggest annual corporate loss of $4.9 billion in 1992.
In fact, a better memory of the slightly longer past may have helped IBM to avoid the crisis in the first place. Before the computer age really took off, IBM always perceived itself as a service organisation that provided information technologies to large companies. It is arguable that the company’s problems occurred when it began to believe it was a computer company. It returned to profitability when it returned to first principles.

The lesson could also have been gleaned from an awareness of business history going back to the 19th Century. Over four decades to 1880, the New England ice cutting industry, for example, built a formidable delivery business across large swathes of America. When mechanical ice-making machines from France allowed the product to be manufactured near its markets, the local companies refused to embrace the new technology. Over the next 30 years machine-made ice steadily took over, even though the cutters ploughed more resources than ever into process improvements.

Elsewhere, the proposition is evident in how the modern Labour Party in Britain formulated its policy on the Internet using 75-year-old experience. The decision to invite private companies to set up a “National Grid for Learning”, providing high quality services on the superhighway for schools and universities, was modelled on the way radio manufacturers clubbed together in the first quarter of the last century to create the organisation that eventually became the BBC. If anything, the fact that resourcefulness in one branch of internet activity is being offset by the broadband conversion delays that are not as evident in other European countries or in the US and Canada, and the less than proactive resolution of issues such as unmetered internet access and the price of leased lines, is a clear demonstration of the non-‘follow through’ lesson that history also teaches and a clear rebut to the anti-history argument that long-past models don’t apply because circumstances and tools change.

Because of their typical celebratory application, the need to encourage a completely new approach to corporate and business history is crucial. To be useful for decision-making, they need to be produced as unadulterated learning tools.

3. Reflection.

Armed with rigorous OM – or as rigorous as OM is likely to get - it is then possible to implement the next stage in the EBM Teaching/Learning Loop - the study of how prior experience can be applied beneficially to on-going decision-making processes. Saljo’s hierarchy of learning stipulated that erudition was about making sense of information, extracting meaning and relating information to everyday life, specifically understanding the world through reinterpreting knowledge. A quarter of a century later Nonaka and Tekeuchi refined the concept by suggesting that new knowledge was created through incorporating tacit knowledge into the process. Reflection, they said, was best achieved by sharing experiences using figurative language.

This part of the process is best conducted through the medium of case studies related orally in groups. It involves stepping back from the ‘experience’ and reviewing events critically. Importantly, the motivation for the organisations and employee participants must be learning rather than finding fault with individuals.

In this application, decision-making also has to be seen as mutable rather than as a proscribed science given that there is no one way of doing things. In reality, there are innumerable wrong ways and at least the same number of right ways to any action. From the educator’s viewpoint, the objective should be to get learners to consider the range of options, or at least as many of them as possible. In the realm of decision-making, experiential learning should be more about understanding the process than just learning to follow instructions (or prior experience).

As part of the reflection process, learners should review the chosen experience from as many perspectives as possible. Depending on the circumstances, a template of questions might include:
(a) What happened?
(b) Why did it happen?
(c) How did it happen?
(d) What was the outcome?
(e) What is the explanation for what happened?
(f) How is it significant?
(g) What conclusions can be drawn?

The questions need to be asked with the objective of putting the experience into some sort of overview. In this process, the evaluation of both explicit and tacit knowledge is a critical consideration as is understanding the relationships involved, the purpose being to make sense of events and, from that, extract meaning in an organisation-, job- and person-specific context, keeping in mind that the knowledge derived is applicable to only one point in time.

4. Lessons audit.

Learners then draw up a written list of lessons specific to the chosen experience – a so-called Lessons Audit, the objective being to have a hit-list of do’s and don’ts for consideration next time an ‘experience’ of a similar nature arises.

5. Reprocess.

This stage in the EBM Teaching/Learning Loop involves re-interpreting events.

Before the similar ‘experience’ arises, learners then theoretically ‘test’ the lessons on a variety of separate scenarios.

A ‘what-if’ list of settings could include:

(a) Using the written-down lessons on the chosen ‘experience’, assess how they might have improved the outcome.
(b) Change the chosen experience’s circumstances and environment (e.g. product price structure and/or product demand), apply the same lessons and assess the outcome.
(c) Using the same changed experience’s circumstances and environment as in (b), adapt the lessons and assess the outcome.

This part of the process is also best conducted orally.


When an event of a similar nature to the chosen experience arises, learners then apply the devised lessons in (4). After the outcome becomes measurable, they use the loop again to assess whether revised practice can be turned into even better practice. This stage supports the universal paradigm of progress being incremental and learning being (or should be) continuous.

In addition to using prior experience as a tool to assess the variants of decision making, the logic of the EBM Teaching/Learning Loop is to make continual incremental improvements to real business situations. When this procedure is implemented as a habit or norm, continual improvement results, with the inevitable effect on productivity. The more often reflection is undertaken, the more often the opportunity arises to modify and refine decision making.

The EBM Teaching/Learning Loop can be undertaken either during an ‘experience’ – for example at regular intervals during a project – or immediately after the experience. In the case of the former, it gives an
opportunity for improvements to be made concurrently. In effect, events can be assessed in real time as opposed to hindsight and without the emotive fog and factual disputes that come with written accounts by third-parties and the confrontational elements of group-based retrospective examinations. If one waits until after a task is completed, there is also no opportunity to refine it until a similar task arises.

The sequence can also be applied either as self-learning, where an individual is trained to informally undertake the six stages on his/her own, or with the help of a facilitator, who orchestrates the process in a more formal way. In the case of in-house development, the facilitator can be a peer or someone independent of the organisation, but nevertheless trained to be analytic, objective and, importantly, incisively provocative to encourage creative thinking.
CONCLUSION

With varying emphasis, industry all over the world remains widely disposed towards non-reflectiveness. This attitude underscores one of the main changes in the conceptual understanding of modern business and management - that it is a science rather than an art. Alongside its theoretical teaching in business schools, this has come about because of the rapid rate of technological change and the ensuing massive increase in the number of products and services generated, the belief being that their management has therefore little relevance to previous practice. Although the technology of management is constantly changing, the practice of management is, in fact, unerringly analogous to what it has always been, incorporating unchanged processes in activities like decision making, leadership and strategy whether the product coming off the production line is a Model T or a computer.

On the basis that experiential learning depends on the unambiguous awareness of experiences, the inescapable supposition is that if they (the experiences) can’t be recalled accurately and in context, they might as well never have happened. So, if they are not to pass beyond reach – i.e. become unusable as a learning medium - they need to be managed, just like any other corporate asset. Through archive preservation, good research, its assembly into comprehensible commentary (oral, written and visual) and – essentially - applied teaching, the contention is that experience is the precise vehicle through which education and industry can provide a constantly changing employee base with the knowledge necessary for a practised workforce to benefit from hindsight. It is not a cure-all. But structured formally, it is a practical and powerful educational means to better professionalise the teaching and practice of business.

Corporate amnesia means succeeding generations of managers and workers have to start from scratch. It is of no little concern, then, that the education systems of so many countries provide so little historical awareness of their companies in particular or business in general. Neither do many organisations make much effort to pass on their experiences from one generation to another. As a result, the learning curve is much longer and steeper than it might otherwise have to be.

Business education tends to compartmentalise its studies into separate disciplinary boxes. Most management disciplines also deal mainly with the short run and - like techniques such as calculating market share and gearing ratios - are generally taught in theoretical terms. In general, this approach disassembles management functions, restraints the perception of inter-relationships between subjects and means that analysis is often far removed from the real world. In fact, neither economic history nor the use of “case studies” provide the nation’s future businessmen with anything other than a conceptual and/or narrow awareness of their corporate past. Given the present rapid rate of change in day-to-day business, future managers need to be made aware of how long-term changes have affected enterprises and how previous managements have coped with both success and failure.

Good corporate and business history is multi-disciplinary, is concerned with the dynamics of long-term change and allows more practical contextualisation. Because corporate history and business history is driven by actual examples, their study gives aspiring entrepreneurs a more practical orientation to the real world of business than the empirical instruction they otherwise receive. They are, in effect, a simulation exercise for real life.

Underlying this is the classroom attitude to “history” as a generic subject. Rarely is it seen as “experience” or taught as an applied field of study, where its inventory of tried and tested practice is a knowledge resource that is part of a natural process of progress and change. Its nature is more commonly seen as immutable rather than evolutionary. In the shape of experience, corporate and business history is, in fact, nothing more than the story of change. Its awareness is an appropriate way of teaching how to manage this most fundamental character of business.
Then there is the prevalent mind-set among many educators (and certainly industry) that confuses teaching and training with learning. Much of the business ‘teaching’ given is informational. For the process of erudition it is the core of most functional skills - but only half the true learning process. It is the ability to transform information into “knowledge” – a process that requires reflective, interpretive and predictive skills - that provides the real meat of learning. In this, experiential learning is key, with accurate and contextual organisational memory the basic evidential component in the process.

Over in industry, where experiences are more 'sensitive' because of the more intimate involvement of individuals, the learning process is stifled by inherent short and selective memory recall, defensive reasoning and the turmoil of the flexible labour market. For their own reasons, most managers insist that they should not look backwards, only forwards. The thought that their predecessors might have something that they could learn from is not an admission that is political to make. After all, they are being hired because they know better! Ironically, it is only in their senior years that they will concede that the younger generation seem resolute about doing things their way, whatever the consequences. There is a business lesson in veteran British politician Tony Benn observation when he was Secretary of State for Industry and the Minister responsible for Post and Telecommunications: “In developing our industrial strategy for the period ahead, we have the benefit of much experience. Almost everything has been tried at least once”.

A columnist in The Times inadvertently gave an indication of the scale of the UK's non-learning problem when, in frivolous mood, he did a computer search in Hansard, the official record of all legislative utterances in Westminster, for the words “no stone unturned” which, he decoded, was “an inflated way to claim energetic action” for something gone wrong. Staggeringly, his computer came up with the number 4,933 over the 14-year period to 2002. “Is it really possible that someone in the House of Lords, the Commons or elsewhere in the political machine has declared their intention to leave no stone unturned, on average, once every single day for the past 14 years?”, he declared.

Add up the cost of all those incidents, even a fraction of them, and both industry and education appear to be missing a trick. They could, through better experiential learning processes, implement their own ways of benefiting from hindsight. By jointly providing formalised methods for succeeding generations not to have to start from scratch when they enter the workforce or change employers, they can accelerate the development of their own business. For the accountants who need to quantify it, countries and companies have already paid for the experience many times over; why reinvent the wheel? The comments of J.G. Pleasants, former Vice President, Proctor & Gamble, is apposite: "No company can afford the luxury of re-discovering its own prior knowledge. Understanding the company's past can lead to adapting previous successes, avoiding old mistakes and gaining knowledge far beyond personal experience.” In the new Information Age, experience is as much knowledge as anything else and should not be treated as a narrow-interest scholarly pursuit.

In the world of business, experience is like paid-for stock – money in the bank. Experiential learning, which depends on an unambiguous awareness of those experiences, can put it to work with enormous added value. Until industry and education recognise this logic – and the enormous cost of ignoring it - organisations will have to keep on depending on informal and indiscriminate means to learn from its own and each others’ business experiences. Instead of being poorly subsumed into wider disciplinary specialities, is it not time for decision-making to be elevated to a branch of teaching/learning in its own right?
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The construction productivity imperative. July 1, 2015 | Article. By Sriram Changali, Azam Mohammad, and Mark van Nieuwland. Open interactive popup. Article (PDF -1MB). The construction productivity imperative. Open interactive popup. Article (PDF -1MB). The use of Building Information Modeling (BIM) helps improve productivity as projects progress, because all information is contained in a single location. BIM tools are based on 3-D models, and they help planners avoid design clashes. Strong performers maintain an in-house cost database that incorporates quotes from new construction and existing facilities. In addition, these owners have a clear understanding of what factors affect costs, and they use this information to their advantage in design and negotiations.