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:: NEWS ARTICLE

Agility, Innovation and Building Business Value

First, what is the argument or mandate for valuing and emphasising Agility and Innovation and this move to flexibility and change? I think it is summarised nicely in this simple truth:

Systems built to change are much more valuable than systems built to last.

Despite the obvious irony, a System built to change in today's world is going to last longer than a system simply built to last? What is driving this need for Agility? Is it real or imagined? Is it the latest way that technology suppliers and consultants are using to help drive sales of their products and services?

Although Sandfield is described as a middle tier IT Company in Auckland, we are just whitebait by world standards. We have built our business on valuing agility and our ability to respond quickly to changing requirements. However, what are the big hitters saying? What is their International perspective? This is a small selection:

A Fellow at EDS - Kas Kasravi argues that The Next Big Thing follows Fads in the Business Community. For example:

- 1970 - Efficiency
- 1980 - Productivity
- 1990 - Quality
- 2000 - Innovation

Kas also observes that although there is a valid core to every fad, they are also surrounded by parasitic fluff. He goes on - "The fluff can be recognised by Consultants that offer turnkey solutions that claim to meet all customers' needs in the area."

The Fellows at EDS also make a strong claim to why emphasising and valuing innovation is going to be "The Next Big Thing". These are summarised down to 5 key points:

1. Exponential IT capabilities will drive accelerating change: Leading companies will utilise information technology in new ways for competitive advantage.
2. Accelerating change will create increased complexity & decreased time to respond: New business/technology models (including new roles for people) will emerge.
3. Predictability and simplicity will be valued: Rigor in processes will drive out major costs and change the scope of automated business process as well as our interface to them. There is only so much change that the people can absorb before they become overwhelmed.
4. The 'flat world' will amplify the effects of the levelled playing field: Traditional Cost savings techniques will not be effective driving to "leap-frog" strategies.
5. The "edge" of the enterprise will continue to expand and disappear into the environment: Exabytes of new information must be harnessed through the creation of context awareness.
6. Personalisation will be valued as consumers drive the market: Mass customization will be a critical product/service component.

McKinsey

McKinsey focuses on how CIO's internationally are spending their time and how involved CIO's are working with the business. They put particular emphasis on whether CIO's are determining strategy and also the level of involvement with the multi-year planning which they say is going to be necessary, if IT is truly going to influence Business.

They ask the question, how successfully is IT Strategy aligned with the needs of the businesses they serve. This alignment, in their experience, means CIO's are collaborating with business in ways that will add significant value. They are describing this as the "next frontier in IT Strategy".

They argue that the idea of aligning IT Strategy with the Business Strategy is outdated. I believe it was the CIO for Boots the Chemist in the UK. He was asked about his IT strategy and he replied that he didn't have one - he had the Business Strategy.

Their conclusions are:

1. IT Strategy in most companies has not reached its full potential
2. This potential is exploiting Innovation to drive constant improvement
3. Less than 2/3rds say that technological innovation shapes strategy
4. Only 43% say that they are either very or extremely effective at identifying areas where IT can add most value.

In a NZ context, you may have heard Mainfreight's talk about their approach to strategy which is- Ready, Fire, Aim. McKinsey also talk about a concept of "Just in Time Strategy" which is focused on making Corporate Strategy and Planning processes more relevant and flexible.

Fujitsu

In 2006, Fujitsu Australia and NZ identified a "pressing need for a more comprehensive and determined debate on innovation performance." Fujitsu's observation is and I quote "there are a small number of local organisations excelling with innovation however there is no consistent determination to take on the innovation challenge". They telephone surveyed 178 organisations and published the results as the Fujitsu Innovation Index - "Igniting Innovation Performance".

The Fujitsu Study concludes that Innovation Performance has plenty of room to improve with a mean score of only 64/100.

Their key findings were:

1. Internationally, we have a comparatively low score.
2. Companies that had focused on innovation, credited it with a 33% increase in customer satisfaction and a 30% increase in profitability
3. Collaboration has a comparatively low emphasis
4. Barriers are lack of resources and strategy
5. Smaller companies were more innovative than bigger companies
6. Fast growth companies are more innovative than smaller ones
7. Innovation was correlated to leadership not Industry Sectors.

Microsoft

Lastly what are some of the thoughts coming out of Microsoft on Innovation and Agility? Earlier this month Matt Dunstan the Application Platform Group Manager made statements that were headlined - "Monolithic Platforms are bad for Business".

His main focus was on UNIX mainframes where Matt claims that between 2/3rds and 75% of IT Budgets are spent on maintenance and support and this leaves precious little left for Innovation. He also had a go at SAP for not being flexible enough. He claimed that he has many conversations with SAP customers about how they can use the Microsoft Platform to extend their SAP installation. He claimed that it is cheaper and faster to do this outside of SAP than within it.

He was asked whether he was being self serving by claiming that it was better for business to be on an up-to-date Monolithic Platform than it was being on an out of date Monolithic Platform. He replied that it is not entirely self-serving because having fewer platforms to support made it easier.

Matt also made observations about the influence that IT has on Business Strategy. Microsoft commissioned a study on 200 Companies with over 500 employees. Less than half of the IT Directors of those Companies sat on the Board which he concludes is indicative of a disconnect within Business and that IT is struggling to establish relevance.

Microsoft put this down to a lack of harmonisation that is exacerbated by political factors. IT wants to get on with but Business but the IT Department is hamstrung by political alignments within the business.

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Taking Stock

We have established that at a high level, NZ needs to do better economically. This is to improve our International competitiveness and to preserve and improve our lifestyle. In our situation, innovation and agility don't cost much so they are an obvious option for us to use to drag us up the OECD rankings,

IT is influenced by trends in general business. Innovation has been highlighted as "The Next Big Thing".

We have briefly touched on EDS's view of why this happening. In my opinion agility and innovation have always been valued. Previously it was a choice, in future it will be a necessity.

We all experience evidence of the faster pace of business as a key reason to value agility and innovation. A couple of observations:

1. In 1950, toys had a market life expectancy of 15 years. They are now "obsolete" in 3 to 4 years.
2. Pharmaceuticals cycles have shrunk from 25 years to 7
3. Cosmetics that had a life expectancy of 14 years in 1950 are no longer considered to be saleable after 3 years

Over and above the fast pace of change, is the rapid "commoditisation of value". Competitive advantages that were carefully established are quickly replicated, packaged and sold or even given away as standard offerings by competitors. This drives the competition to find The Next Big Thing.

To me the macro reasons driving this change are ethereal. In my business context the factors are:

The Fujitsu Study concludes that Innovation Performance has plenty of room to improve with a mean score of only 64/100. Their key findings were:

1. Business wants to do more and they want it now. Strategy always seems "Just in Time"!
2. It's difficult to get good people.
3. IT is getting better at adding Value to Business, rather than being just an overhead.
4. The reach and breadth of systems is widening, there is simply more IT.
5. IT is much cheaper so Business can afford to do more.
6. Particularly in a NZ context, Technology has provided more capacity than what we need, the challenge is to deliver,

"Others have talked about creating "Agility Focused Companies". To be successful these Companies need Agility Focused IT.

Focus on Innovative Business

This is just a thumbnail of the thousands of discussions that are in progress. I also see that the word Innovation is used very liberally, which means that it is easy to talk at cross purposes.

In a Corporate IT context we aren't focusing on simply purchasing or implementing new technology and describing this as innovation. Costs may be saved or improvements gained by purchasing the new iPhones for example. But just buying innovation isn't innovative. I mentioned earlier that one of the drivers of Innovation is commoditisation which quickly and inexpensively allows competitors to catch up.

In a New Zealand context, I suggest that innovation and agility is simply the quality or ability to make value-enhancing changes quickly and relatively inexpensively. It is about taking an attitude - for instance - that it is more important to have a system that can change than just last.

I also think innovation can't be judged at an industry level. It's not just about the quality of the innovation; it is also the situation that the innovation has taken place. To achieve innovation in a small start up is easy compared to a large, dusty institution. This is where the principle of industry "Best Practice" is dangerous. Innovation must work for the people who use it in their context.

Although I'm very proud of what we have achieved at our clients, I couldn't say that Mainfreight has an Industry leading Freight Forwarding System - I just wouldn't know. What I can say is that Mainfreight's systems suit them very well, that they suit the way that they want to do business, that they do form a foundation for innovation in their context.

Before I get on to how to create an environment that values innovation and agility. First I would briefly like to touch on a handful of historical factors that make this difficult. I suggest that these are everyday, down to earth challenges that we must combat to create the opportunity for Innovation in the Businesses we serve.

Historical Influences and Hindrances

If we accept that there is a general movement towards valuing innovation. If we accept that to produce more innovation we must become more agile. What are the historical factors that hold us back? Potentially, these are not factors with the IT industry itself but the beliefs that Business decision makers carry when they direct IT. It is the base of wisdom that they use to make major IT decisions.

1. Computer Science and Computer Engineering
2. Predominance of the Waterfall Model
3. Assumption that IT is Risky
4. How IT is Purchased
5. Innovation forces Change
6. Law and IT Contracts

Computer Science and Computer Engineering

Historically IT, particularly in Academia, has been described as Computer Science and particularly Computer Engineering. There has been an emphasis on the Technological aspects of IT with a lower emphasis on how you get Technology to work innovatively for Business. I know that many learning Institutions are working hard to change this emphasis.

Also aligned with this is an emphasis on achieving certainty, prior to undertaking a project. I often hear that the problem with IT is that they don't apply the disciplines of strong project management and engineering that the construction industry use, as their foundation for delivering on time and on budget.

In my experience this is wrong. In my business we don't often undertake projects that have been specified in detail upfront. In the past 18 months we have built two significant systems that had been specified by other Companies. Both systems have been implemented very successfully. In one case, the system owner commented that it was exactly what he envisioned before starting the project. I estimate the finished system was at most a 40% fit to the specification that we won the work on. In the other case, the fit was a little higher but the system cost less to build than it did to specify.

Predominance of "Waterfall Model Thinking"

It is very difficult to know everything about a project before it starts. Business is unable and does not want to tell you everything about what they need before a project starts. When innovation is involved they are unable to tell you. This is because they really don't know the opportunities for innovation before they can see and understand them. Many opportunities for innovation only become apparent during the project.

The traditional "Waterfall Model" was seen as the defacto standard for software developments. Although, the IT function has moved on to Agile Methodologies I still believe that general Business Management has the traditional Waterfall Model as their standard when thinking about IT decisions.

In my experience this has become the Conventional Wisdom that is set in place with many Senior Management and Directors. In some circumstances, this creates the foundation for decisions that kill off innovation and agility and many opportunities that IT can bring to business.

Assumption that IT is Risky

Fundamental to this argument is the assumption that IT is intrinsically risky. In order to innovate with IT, Business has to undertake Development Projects and the Conventional Wisdom in Business is that IT Projects are high risk and there is a high probability that they will fail, not meet their business goals, run over budget and be late!!!

The default opinion is that Development Projects, which to me are the foundation of Innovation, are risky and should be avoided. We have to do better!!

How IT is Purchased?

How IT is purchased is another area where conventions can affect the ability to create an innovative environment. This sets the scene for whether innovation is encouraged. It is typical that these processes are based on an assumption that vendors and solutions are being compared to a predetermined specification. The assumption that the customer knows exactly what they want and the supplier's role is simply to fulfil that requirement for the best price and terms possible.

It is typical that a vendor is involved because of their experience and industry knowledge. In many RFP environments, there is a restricted scope for a vendor to use this for the customers benefit. In my experience if there are areas that are high risk or have questionable business value it is very difficult for the supplier to be upfront about these concerns and still win the work.

Innovation Forces Change

Another perspective is that difficulties, when they occur with IT are simply a function of the problems associated with change. If projects are going to be innovative then significant change may be inevitable. The project is the battering ram of change and IT can be a convenient scapegoat.

"Reasonable people adapt themselves to the world. Unreasonable people attempt to adapt the world to themselves. All progress, therefore, depends on unreasonable people."

Law and IT Contracts

To finish, this section I would briefly like to touch on the influence of the Legal Profession. After trying to set all the requirements in concrete to make requirements certain, before the project start, after trying to remove risk by matching the best vendor to this scenario; it's capped off with a big meaty contract which is going to force the vendor to perform. Again I think there is a common view in business that a Contract can solve this risk.

I have never seen a contract make an IT project successful and in the two occasions where the law has been involved in a commercial issue, the contract has not been the vehicle for resolving the problem.

In my experience it has been very difficult to set up workable Legal Agreements that support an agile style of Business. At Sandfield we conduct a significant amount of business based on trust.

I suggest that this tension is caused by the Law requiring things to be black and white, whereas innovations evolve.

Creating an Agility focused Environment

Just as the traditional Waterfall approach has influenced business thinking the anti-christ of Waterfall - the Agility Movement has values for how leaders and managers can create an environment that encourages innovation.

There are now many Agile Methodologies. I have participated in surveys where Academics have been attempting to study these to determine which is being adopted, possibly with a view to discovering common usage and applicability. To me this completely misses the point - because a key tenant of Agile is that you need to be agile or selective with how you apply the principles. There is no right or wrong to this, it is a personal preference driven by judgement and the desire to continually improve.

It is not a rigid set of rules that can be followed that will guarantee success. Just as none of the other methodologies, tools and consulting services have been able to produce that result over the years. Agility is intended to provide a framework that needs judgement to apply in the particular business circumstances.

Who was it that said - "this is all very well in practice, but it will never work in theory".

To me the key pillars of Agility are:

1. Individuals and interactions over processes and tools
2. Working software over comprehensive documentation
3. Customer collaboration over contract negotiation
4. Responding to change over following a plan

"While there is value in the items on the right, we emphasise the items on the left more."

The principles of Agility are a seminar topic in its own right. I have included in the notes a summary of the key principles supporting an Agile Manifesto. I also recommend Martin Fowler (<http://www.martinfowler.com>) as an excellent and pragmatic source of inspiration and discussion on this topic.

I think it is unfortunate that many of these principles are described as Extreme Programming, Scrum etc. I suggest these are risky, "out there" descriptions which do little to encourage conservative general management to take a fresh approach to IT.

The interislander Case Study

This Case Study highlights how The interislander ensure that their IT Strategy stays relevant and aligned to changing Business Requirements.

This framework is used to communicate with management and other internal stakeholders and to ensure alignment with the strategic goals of the business. It also articulates the preferred behaviour of IT in engaging with the business in order to deliver genuine value.

It also communicates the vision to internal and external providers. This ensures that everyone involved understands the goals and delivery processes.

Over the last 5 years, IT at the interislander has been transformed from a compliance driven emphasis to a catalyst for making business changes, resulting in significant additional value to the interislander business.

The key aspects are:

1. Business enablement - making IT manageable by the Business Units IT serves
2. Emphasis on Business Value
3. Approach to Business Change
4. System Replacement Strategy
5. Service Delivery
6. The IT Services Mix

Check List for Action

Principles for ensuring IT initiatives create Innovation and Business Value

Business Driven

Endeavour to make IT manageable by the business. When possible, couch requirements in Business not Technology Terms. Relate every requirement to a business result and have everyone understand its ultimate purpose.

Communication

Maximise the direct communication between business owners and the person responsible for actually doing the work.

Project Size

A series of small projects are much easier to deliver than a single big project. It is more likely that small projects are innovative. Even the biggest IT Project has to be broken down till a single programmer can work on their piece. Try and make every project small.

Organisational Size

Big organisations have big IT projects; small organisations can only afford small IT projects. Is it necessary to have a large and expensive project, just because the Organisation is large?

Simplicity

Many programmers love complexity. Create an environment to maximise the amount of work not done.

Risk

Tackle risk up front. Small organisations are better at tackling risk than big organisations. Collaborate with small organisations or teams to mitigate innovation risk, big organisations manage deployment risk.

Iterate Frequently

Most projects can be executed through frequent iterations. It builds confidence and mistakes can be recognised and rectified rapidly.

Trust

Elevate relationships to work on trust and respect.

Responsibility

Everyone involved must take responsibility. IT may need to take responsibility for Business outcomes, it is usual for Business to take responsibility for IT outcomes.

Avoid Monolithic Platforms

Monolithic systems are the enemy of innovation. Innovate around the outside with Internet and Intranet Strategies.

People, People, People

Get the best people you can, they often aren't the most expensive. Good programmers can be many, many times more productive.

Are you Innovative?

What proportion of your IT Budget is spent on new Initiates versus standard management and maintenance functions?

Appendix

Principles behind the Agile Manifesto

At Sandfield:

Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.

Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.

Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.

Business people and developers must work together daily throughout the project.

Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.

The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.

Working software is the primary measure of progress.

Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.

Continuous attention to technical excellence and good design enhances agility.

Simplicity--the art of maximizing the amount of work not done--is essential.

The best architectures, requirements, and designs emerge from self-organising teams.

At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behaviour accordingly.