Put Your Enterprise Knowledge to Work

A Guide to Intellectual Capital Management
This guide is intended to introduce the concept of Intellectual Capital Management (ICM) to Hong Kong enterprises. We hope that after reading the Guide, you would be able to create a simple ‘Intellectual Capital Report’ (IC Report) to show to your stakeholders or use for your internal development planning.

Many parties have an interest in looking at your published accounts. Some may be interested in investing. Some may be potential clients for your services or people planning to engage your enterprise to do work for them. Your published annual company report is a valuable resource; but it only gives a part of the picture.

Apart from your fixed and current assets, if you could provide stakeholders with a pen-portrait of your enterprise’s creative potential, that would be a good display of your strength, innovation and outlook. In turn, you would gain a competitive edge over those who do not commit to the knowledge economy in this way.

The key to becoming part of ‘creative industry’ does not always lie in creating something new. In fact, the most cost-effective way to become part of the creative community is to make good use of ideas and skills that you already possess, but which you have not yet fully exploited.

Is my operation too small to benefit from ICM? No! In Japan, ICM tools have been applied successfully by an enterprise which recycles used comics and a family business making traditional sauces. ICM is about intellectual resources, not physical or financial resources. However small your enterprise is, your knowledge can be vast. It’s just a matter of finding it and using it.

At its most simple, it is a matter of ‘knowing what you know’. In this Guide, we will help you understand ICM – a process for ‘discovering and using what you know’. At the same time, we will introduce cost-effective ways of managing your enterprise knowledge and keeping it secure.

Keeping enterprise knowledge secure is an important step in protecting your intellectual property. A good enterprise should have a portfolio of registered intellectual property rights like trademarks, patents or designs. However, registering your rights and then waiting for a problem to arise (for example, unauthorized use of your new design by a counterfeiter) is not as effective as taking steps in advance to reduce the risk of infringement. Prevention is better than cure.
Six Steps Towards an Intellectual Capital Report

Creating a Company IC Report is something done by your senior management. As a long-term ideal, it would be best to develop an enterprise-wide system for assessing and evaluating enterprise knowledge at all levels. But you can initiate a much simpler approach with input limited to the Management. If you find that the system works well for you, you can extend it later.

The **objective** to convey to your enterprise management is:

“We want to identify our enterprise’s **strengths and weaknesses** in our use of knowledge. We want to agree on what knowledge we are applying most effectively to **create value for our stakeholders**. The output from this exercise will form our **Intellectual Capital Report**”
The First Step: The Stakeholders.

The context of the IC Report is the creation of value for stakeholders. A key objective will be to identify accurately –
- who the stakeholders are;
- what they attach value;
- how much value they attach to each item.

‘Stakeholders’ are not the same as ‘customers’. They could include customers, suppliers, regulators, the press and the public. They could also include parties that you have not yet specifically identified but would like to identify in the future, such as angel capital investors.

‘Value’ is not exactly the same as ‘monetary cost to customers.’ The value of your product or service to stakeholders could include the cost charged, the convenience of obtaining it, the service attitude of your staff and the cost to the customer of breaking a relationship with another supplier.

You may feel that it creates value in the market if the general public perceives your company as socially responsible. In that case the general public might be a stakeholder and ‘social responsibility’ might be a value that they attach to your company.
The Second Step: Where to Look for Enterprise Knowledge.

The way to start the search is to work with your enterprise structure. Say you have Purchasing, Research, Marketing, Manufacturing and Distribution sections; then the managers of these sections can be the first level of breakdown for your knowledge survey.

Enterprise Knowledge

Purchasing Knowledge  Research Knowledge  Marketing Knowledge  Manufacturing Knowledge  Distribution Knowledge

This plan is not a plan of what you know: it’s a scheme of where your knowledge is.

The standard approach to setting the parameters for the search for knowledge is that the knowledge should be:

- Distinct (clear and separate definitions)
- Complete (nothing relevant missing)
- Independent (no direct cause/effect relationship with other resources)
- Agreeable (broken down no further than is suitable for the purpose.)

Here is something to avoid: don’t allow knowledge to remain undiscovered because it has ‘fallen between two desks’. For example, if your enterprise is structured like the one above, who is looking after your human resources management and overall enterprise administration? Are you sure that important repositories of knowledge have not been overlooked?
The Third Step: What to Look for.

‘Knowledge’ is a vague term. We are not just looking at knowledge for knowledge’s sake. The aim is to identifying useful knowledge that is being used (or could be used) to create wealth for your enterprise.

The key classification for intellectual capital is three categories:

- Human Capital
- Structural Capital
- Relational Capital.

Enterprise Intellectual Capital

<table>
<thead>
<tr>
<th>Category</th>
<th>Meaning</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Capital</td>
<td>Valuable knowledge assets held in the heads of your staff and available for use to create wealth for the enterprise</td>
<td>Professional competencies, Work experience, Motivation and behavior</td>
</tr>
<tr>
<td>Structural Capital</td>
<td>Systems and practices of your enterprise that add value and create wealth for the enterprise ('things that are still there when the staff go home for the night')</td>
<td>Quality control system, Financial control system, Brand, Training programs, Registered IP rights, Customer database</td>
</tr>
<tr>
<td>Relational Capital</td>
<td>Value-creating relationships</td>
<td>Relationship with shareholders, Relationship with suppliers, Convenience of retail outlets, Relationship with regulators</td>
</tr>
</tbody>
</table>

Although there are arguments for classifying intellectual capital in other ways, this way has become conventional. It’s useful to adopt the conventional approach (even if you have some doubts about it) because it makes it easier for outsiders to understand your ‘IC Report’ and compare it to the reports of other enterprises.

When you plan this intellectual capital assessment, you will soon hit up against the question, “How much detail shall we go into?” The answer is: “not much.” We suggest that each division of your enterprise come up with no more than ten items for discussion. A division should be able to come up with at least three. Once a first round has taken place and different division heads see what other divisions have come up with, it should be easy to come to a consensus about what should be ‘in’ and what should be ‘out’. Although a very thorough exercise is ideal, we suggest that for a first attempt, ‘keep it simple’.

Don’t forget the boss. Although it is wrong automatically to attribute the greatest value in the enterprise to the boss’s knowledge, it’s also wrong to leave him out of the
equation (for example because the input has been sought from division heads and is passed upward.) For instance, the quality of a restaurant could stand or fall by the quality of an owner’s relationship with suppliers.

As a first round, you could invite each of your division managers to list the intellectual capital of their division, and then you combine all of the items into a single list for the whole enterprise.

Here is a sample of a first attempt at an intellectual capital assessment for a service enterprise:

**Human Capital**
- Expertise arising from academic and pre-employment study and work experience
- Effective teamwork within a small workforce, enhanced by regular team-building efforts
- Good staff communications skills

**Structural Capital**
- A detailed work manual
- Rule-based incentive scheme system
- An effective data security policy
- Registered trademarks and designs
- Well-implemented software management system

**Relational Capital**
- Effective working relationships with professional and regulatory organisations
- Good government relations
- Good consumer support developed through regular focus-group meetings
- Co-operative management-shop floor relationship
The Fourth Step: How Valuable is it.

What you have done so far are the first steps into improving your self-awareness as an enterprise. The fourth step is to try to apportion some sort of value to the individual items. This ‘value’ is not expressed in dollar terms, but as a percentage weighting.

The value in percentage terms is not intended to reflect how well you think you are doing in a certain area. It is an attempt to give a weighting to show how much a certain area contributes to creating wealth for your enterprise in the eyes of stakeholders. So for example using the list created above –

![IC Report Diagram]

That is a simple IC Report. How did we reach this point? The individual division heads and the managers had to sit down and reach a consensus about the importance of each element in creating value for the whole. Such a discussion will not be easy: the people responsible for HRM (teamwork, incentives and communications) seem to have come off rather badly. You might conclude reasonably that if the “rule-based incentive scheme system” only created 2% of your enterprises value, it should be left out for the time being.
The Fifth Step: Reading Back from the Report

So what sort of enterprise have we got here? It’s a service enterprise where client relations and expertise are of strong value. Notice how concerned they are about data security and relations with a regulatory body. Relationships with clients and regulators are strong value-creators. Perhaps this is a consultant firm providing professional services in a regulated area like financial or environmental services, and where security of client and enterprise data is a concern. They consider their brand only moderately important.

Does the shoe fit?

When you have your IC Report completed, you need to make yourself comfortable that it is a real reflection of your enterprise. You may wish to review–

- Who are our stakeholders?
- What do they value and why?
- How much do they value it?

If at the end of the process something feels wrong, one of two things might have happened –

- You might have made an error in assessing and weighting your IC. For example, perhaps a particularly forceful division head pushed for a consensus that his or her area of responsibility was most important for value creation; or
- You may have identified a weakness that needs to be addressed.

If there is a gap between the stakeholder values identified in the first step and the intellectual capital weightings established in the fourth step, then you have started on a basic ‘gap analysis’. For example, if ‘relationship with regulators’ was an important area, but your company has not identified a single point of responsibility for that area, then there will a gap that needs to be addressed.

The Sixth Step: Protecting What You Have

When you understand what knowledge you have and what role it plays in creating value for your enterprise, it’s time to consider how to protect it.

The academic knowledge and experience of your staff (part of human capital) belong to the staff themselves. You can apply it to create wealth for your enterprise; but ultimately if they wish to use it for their employment elsewhere, they are free to do so once they have completed the contractual obligations to your enterprise.

But while they work for you, it is important to make sure that the intellectual capital they create for you is not leaked out of the enterprise because of poor data security.
The structural capital of the enterprise belongs to the enterprise. If it is valuable and sensitive (i.e. you don’t want your competitors to get their hands on it), you need to make sure it is protected as enterprise confidential information (‘trade secrets’). Make sure that your staff understand that it is secret. Ask them to sign an undertaking regularly that they will not divulge it outside the enterprise (and provide an additional reminder when people join or leave the enterprise.)

Relational capital may belong to the enterprise and to the individual employees. It can be easily damaged by poor professional ethics, bad manners or service or poor quality control. Relations are built up over decades and can be lost overnight. If relational capital is showing up with particularly high weightings, it’s time to develop service and product quality systems and a strategy to ensure that they are maintained.

If your brand presence in the market is weighted highly, it’s time to review whether you have registered designs and trademarks underpinning your brand.

Identifying risks, assessing them and minimizing them are essential parts of the ICM process. Just like a financial balance sheet which includes both assets and liabilities, an IC Report must be able to show readers that your enterprise is aware of the risks to your enterprise knowledge and what you plan to do about it. This process is described in the next section.
Reducing the Risk of Innovation

This is the Intellectual Capital Tree that we produced in the previous section. After we had worked it out, you tried to read back from it to see whether it really fitted your own perception of your enterprise.

Risks Relating to Knowledge

If somebody broke into your company offices and stole the safe, you would probably realize straight away when you went back to the office; and when you discovered the theft, you would realize that something had been taken away from you that could not be replaced.

Losing intellectual capital is different: it is not tangible. You can’t see, feel or hear it. So its loss could go undetected. Furthermore, the loss is likely to be caused by copying assets rather than taking them away so the original intellectual assets may still be there.

Loss of intellectual capital can happen in a number of ways, including:

- Resignation of key knowledge workers
- Theft of company data
- Destruction of key data that had not been backed up
- Infringement of intellectual property
- Loss of business reputation due to bad staff practices or poor quality control
The next in the ICM process is to:

- Identify risks
- Quantify the risks
- Eliminate or minimize the risks

One way to identify the risks is to look back at the IC Tree and see what types of risks are associated with each item.

**Examples of Risks Associated with Intellectual Capital**

<table>
<thead>
<tr>
<th>Human</th>
<th>Structural</th>
<th>Relational</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Expertise</strong></td>
<td><strong>Work manual</strong></td>
<td><strong>Regulatory</strong></td>
</tr>
<tr>
<td>Risk that key staff will leave</td>
<td>Risk that manual is not fitted to new enterprise challenges</td>
<td>Risk that new work procedures are not transparent to regulators</td>
</tr>
<tr>
<td>Risk that staff will use their expertise outside the workplace in conflict with your interests</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Teamwork</strong></td>
<td><strong>Data security</strong></td>
<td><strong>Consumer</strong></td>
</tr>
<tr>
<td>Risk that old team structure is not fitted to new team challenges</td>
<td>Risk that data security does not keep up with new threats</td>
<td>Risk of damage to consumer confidence due to poor quality control</td>
</tr>
<tr>
<td>Risk of disruption to team spirit</td>
<td>Risk of internal theft of enterprise data</td>
<td>Risk of offending consumers through inappropriate advertising</td>
</tr>
<tr>
<td><strong>Communication skills</strong></td>
<td><strong>Registered IP</strong></td>
<td><strong>Staff Relations</strong></td>
</tr>
<tr>
<td>Risk that enterprise is relying on out-dated communications technology</td>
<td>Risk of infringement</td>
<td>Risk of souring staff relations through poor HRM practices</td>
</tr>
<tr>
<td>Risk that communications skills are not being up-dated</td>
<td>Risk of failing to renew registered rights</td>
<td></td>
</tr>
</tbody>
</table>

As with intellectual capital, it is not enough to just identify risk. Having identified it, it is necessary to evaluate it and work out a strategy to mitigate it.

**Evaluating Risks**

It is normal to evaluate risk on two scales:

- How likely is it that the risk will happen?
- What would be the effect on your enterprise if it did happen?
The first question should be studied on a scale running between ‘zero’ (“This can never happen”) to ‘one’ (“This will certainly happen”). To make things simpler, you can forget the extreme cases (“Certain to happen”, “Never Happen”) because commonsense dictates that they would not find a place in your risk evaluation in the first place (i.e. they are not risks: they are certainties.)

The remainder can be set out as a scale from 0.1 to 0.9 (you can make it 1—9 for simplicity’s sake).

1…     …5…      …9
Extremely unlikely…          …50—50…   …Extremely likely

The second question in the evaluation is to assess: “What would the effect be on your enterprise if this happened?” Here again, we use the 1—9 scale, like this:

1…     …5…      …9
Hardly any effect…   …neutral effect …     …we would be out of business!

If you take these two elements – probability and outcome – and multiply them together for each risk, you will have a clear idea how you should place priority on eliminating the risks. The smallest would come out at 1 and the highest at 81. The neutral middle ground on this scale is a score of 25 (i.e. ‘neutral’ 5 x ‘neutral’ 5 = ‘neutral’ 25). If anything measures out at 81, your enterprise is in deep trouble already! If things measure out at 1, then you should place priority on dealing with something else or strike it off your list of risks altogether.

In evaluating the risks, try to avoid the magic number ‘neutral 5’. It means ‘I don’t know’ or ‘neutral effect’. This should be an exercise in trying to positively identify risks so that you can eliminate them.

**Eliminating risks**

Every risk can be mitigated. Not all can be eliminated. It is wrong to believe that ‘anything in the world can happen’ and therefore take no action. It is also wrong to do so much to try to eliminate risks that the measures you take create new risks in other areas. To take a silly example, you would not prevent staff from speaking to clients in order to stop them from disclosing sensitive enterprise data (risk level 6) because it would push the risk level of ‘damaging staff communications skills’ up to 8.

Looking back at the ‘Examples of Risks Associated with Intellectual Capital’ table above, the first item on the left was ‘Risk that key staff will leave’. If the job market was in the employees’ favor at the time of doing the risk assessment, then you might have assessed the probability at ‘6’ and the effect on your enterprise as ‘7’ giving an outcome of ‘42’, which you would consider unacceptable. To reduce the risk, you would need to keep
track of the current remuneration packages in the same business sector and try to ensure that your enterprise’s pay and conditions are competitive. You can’t eliminate the risk that a competitor ‘will give anything to poach your top knowledge worker’; but at least you have done something reasonable to mitigate the risk.

An action table for IC risk assessment could then look like this:

<table>
<thead>
<tr>
<th>No.</th>
<th>Risk</th>
<th>Probability</th>
<th>Effect</th>
<th>Outcome</th>
<th>Mitigation measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Loss of key knowledge workers</td>
<td>6</td>
<td>7</td>
<td>42</td>
<td>Review competitiveness of employment package.</td>
</tr>
<tr>
<td>2.</td>
<td>Risk that data security does not keep up with new threats</td>
<td>4</td>
<td>7</td>
<td>28</td>
<td>Undertake a data security review and deploy new hardware/software if necessary.</td>
</tr>
<tr>
<td>3.</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
</tr>
</tbody>
</table>

Just as when you created your IC tree, you should compare the risk assessment to the IC tree. If the ‘effect’ of the risk happening is not consistent with the value of the element of intellectual capital in the eyes of stakeholders (reflected in the weighting given in the IC tree), then you should re-evaluate one or the other to make sure that they are consistent with each other.

Finally, like the assessment of your intellectual capital, this is not something that you do just once. In fact, you will need to assess how often risks and threats change and then re-assess your risks accordingly. In the table above, the ‘probability’ assessment will go down if the job market changes in the employers’ favor and the data security threat may drop when you have completed your data security review and closed any gaps that it revealed.
From Improvement to Innovation

In the ICM exercise we have carried out so far, your enterprise has completed the following steps:

- Evaluation of stakeholder values
- Working out where to look for your enterprise knowledge
- Deciding what to look for
- Evaluating enterprise knowledge
- Reading back from the draft IC Report
- Protecting what you have -
  - Identifying risks relating to knowledge
  - Evaluating the risks
  - Minimizing the risks

Probably you had a clear idea in your mind before you started about what you hoped to get out of the ICM exercise. In one sense it is not such a good plan to go into an IC evaluation with any preconceptions because doing so may blind you to certain types of knowledge – in particular you may omit to evaluate knowledge that has little relevance to present stakeholder values, but might be very important if you wanted to develop a new line of business involving new stakeholders.

You now have a choice of where to go next.

You choice will be affected by many factors, including –

- How you feel about taking new business risks
- How strong your traditional capital resources are
- The economic situation (e.g. access to finance, technology, manpower…)
- Access to new business partners
- ….
**Turning a Corner or Going Straight On?**

It’s unwise to move on an expressway without looking carefully at the traffic conditions. That is even more the case if you are thinking of leaving the expressway at the next turnpike and changing direction. The IC evaluation that you have completed should allow you to make the change in a much safer way. It takes the ‘brainstorming’ and ‘guesswork’ out of change and provides a rigorous framework for deciding the next move.

This chart above illustrates the elements required either for moving ahead in the same direction, maintaining your present line of business with an improved model (on the left side) or getting off the expressway and adding a new line of business (on the right side.) Of course, unlike driving a car, you can choose to do both.

The element marked ‘matching’ refers to matching your intellectual capital tree with the value tree of your stakeholders. The objective is to make an honest assessment of whether and how much your IC is aligned with your stakeholders’ values.

If you decide to make the bold move to a new area of business, then you need to align with a new set of stakeholder values. But who are they and what are there values? The answer to the question is found in your ‘social intelligence’. The
'intelligence' in ‘social intelligence’ is in the ‘CIA’ sense and not the ‘IQ’ sense. That is, it is a measure of how open and knowledgeable you are about market and economic conditions outside your own area.

**To Move Forward or Not?**

There is an old story of the two businessmen in the shoe manufacture industry who went to a poor, developing country. One saw that nobody in that country wore shoes and thought, “I’m going home! If nobody wears shoes there’s no business for me here.” The other thought “Look! Nobody’s got shoes to wear! I’m setting up business here!”

As regards overseas business development opportunities, the ‘social intelligence agency’ of Hong Kong is the Trade Development Council, who can provide valuable commercial intelligence to support your exploration of overseas markets. But as far as the local market is concerned, the judgment is up to you and your local ‘social intelligence.’

Having valuable intellectual capital but insufficient resources to develop a new line of business is not necessarily the end of the story. Provided that you obtain proper expert advice, you can bundle intellectual capital in a way that would allow you to franchise or license it out to a third party or business partner.

**The Intellectual Capital Report**

We hope that you will work with us to prepare an IC Report for your enterprise. The report will summarize the outcome of your exploration of your enterprise’s IC. We encourage you to make your IC Report available to the public.