

NPTEL
NPTEL ONLINE CERTIFICATION COURSE

Course
On

Human Resource Development

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Lecture 46: Intellectual Capital Management

Okay, so welcome to the 10th week course.

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Module 10
Intellectual Capital Management

Session 1
Basics of Intellectual Capital
Management

And in this week we have five sessions and all these five sessions are devoted to intellectual capital management. Now the first question that will come to your mind that why we are going to discuss about intellectual capital management. You remember we have been talking about various topics related to HRD in terms of this context process and we also discussed a number of HRD interventions like training and development activities, then we talked about coaching, mentoring, counseling right.

If you look at these interventions which we have planned at the individual level for the growth and development, so that you are going to create a competent and skill work force for the organization okay. So this competent and skill workforce is also a capital for the organization which is known as human capital right. So if you want to access the quality or the extent to which human capital is there in your organization, you have to measure that or create a tool or index to see what is the level of human capital in your organization right.

So intellectual capital basically not only covers human capital that is some of knowledge, skill and competencies which all individuals in the organization has. So what we are discussing here is not at the micro level, but at the macro level we have to see that what is the intellectual capital base of an organization at the macro level at the organization level right. Because intellectual capital cannot be measured at the individual level, at the individual level what you are going to measure is level of competencies that he has in terms of physics skill and knowledge base, which is going to be related to a good performance.

Now if you want to see that an organization perform well, then you have to see that whether we can relate it with the intellectual capital base, the question that I am trying to answer here is, that is it possible to say that as intellectual capital base of an organization is higher, then the organizational performance is going to be good. So you want to see a positive correlation between intellectual capital of an organization, and do performance of the organization in terms of productivity, performance, reputation, random and whatever you say are take as a measure of organizational effectiveness.

So we are trying to directly relate organizational effectiveness and performance with the quality of his intellectual capital right. And that is where we need to measure it at the macro level at the organizational level that what is the base of the intellectual capital okay. And that is how we are trying to create certain models and measures to see what is the index of intellectual capital for an organization.

And if this index is gradually increasing or improving or a period of time or not, so you find that if the intellectual capital index of an organization is improving further, it means that the quality of proficiency of their people, some quality of their proficiency of their people if you are going to submit up together, it is much higher okay. And that is why it is important for organizations

today that on the one side you are going to show it on your balance sheet okay, as a part of your balance sheet you are going to show certain assets and liabilities right.

Now under the heading as it is kindly also show this kind of asset because they are also part of the asset so can intellectual capital be reflected of the asset sides of your balance sheet why should we go for this kind of things so probably in this chapter we are going to discuss all such issues which is related to what you call intellectual capital management.

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Module 10

Intellectual Capital Management

Session 1

Basics of Intellectual Capital Management

So we start over discussion by discussing.

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Introduction

"Intellectual capital has been in existence for as long as companies have had customers, it's what makes a company worth more than the sum of its countable part.

As an asset, it has been (inadequately) covered for years by the blanket term of goodwill. Unlike accounting goodwill, intellectual capital appreciates."

Brinker (2004)

- IC can be defined as

"All non-monetary and non-physical resources, that are fully or partly controlled by the organization, and contribute to the organization's value creation."

The first point and there is statement which says that intellectual capital has been an existence for as long as companies have had consumers right what does it mean it means you have a intellectual capital in the organization since it is beginning otherwise how or we going to start a company or otherwise how a company is going to exists without a intellectual capital right.

Because it is the intellectual capital who is going to decide about a company okay similarly it is an asset okay intellectual capital is an asset okay and most cases earlier it was known as good will but you are not using a counting good will okay because unless we are going to use certain accounting measure to measure this good will you will not be able to measure intellectual capital in a proper way right.

Now if you look at the definition that is provided for intellectual capital it says that all non monetary non physical resources which is either partly or fully control by the organizations and contribute to the organization value creation so this value creation is basically nothing else but the quality of intellectual capital that an organization has and that is why you report intellectual capital as a part of a balance sheet you also create a index of your intellectual capital and on time period you see whether it is progressing or not weather there is a increase in intellectual capital index or not.

So all this issues is too discussed gradually one by one and that is why we have taken of this topic as a part of HRD.

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Why Intellectual Capital

- New Economy
 - New management challenges
 - New Technology
 - New business models by leveraging different resources forms
- The responsibility for managing shareholder wealth now has new implications for understanding
 - What resources are to be managed
 - How and what is to be communicated to whom
 - Under what conditions and through what media
 - The profound importance of FUTURE value in the market valuation of equity.⁹



Now the first question comes up that comes up to our mind is that why we are going to talk about intellectual capital research it is because of this changes that is happening okay in the new economy the kind of challenge is that created by the economy relate to the technology and you know that new business model are coming up okay and they are trying to Elbridge different resources okay.

And they tried to see that how you can use different resources more effectively and because you are going to work in a environment which is very turbulent which is created challenge for the management okay and that is why you need to identify that what is the quality of your or the competence level of a professionals right it is not only the quality and the competence of a professional levels.

But you also include all assets later in organization has so human capital is once such asset which is very important but in addition to human capital you might be having other assets so you also need to include other assets that we will discuss later as a part of your intellectual capital, so intellectual capital does not mean only human capital okay it includes other capital as well right and it is very important to address issues related to changes that is happening in the environment.

So that your able to create better wealth for your share folders okay because your responsible for managing shareholders work wealth because you have to see that how effect till your manager

you are going to manage various assets how you are going to do it what are the conditions and under which you are going to take it up okay.

And then you have to see that what is that future value are the market value of our equity what I mean to say is that see in financial terms you have to see that how market is going to value your organization or your people or your assets that you have created so when you are going to talk about intellectual capital probably intellectual capital is going to provide you and answer up all the questions.

That may cover up that in what we use better resources how we are going to manage your assets how going to quantify assets in monetary terms okay what are the various assets that organization has and what needs to be done to these assets to create value for the organization okay, so that the market value of the organization improves right so with this definition.

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The Concept of Intellectual Capital

- The concept of intellectual capital (IC) first appeared in a book published in 1836 by Nassau William Senior (Marr, 2007)
- No single definition of IC
 - evolved from different academic disciplines (Marr, 2007)
- IC – economic value of structural capital and human capital and relational capital of a company (Petty and Guthrie, 2000)
- IC = human capital + structural capital (Edvinsson, 1997)
IC – Difference between book and market value of a company (Edvinsson & Malone, 1997)
 - Book Value = Assets – Liabilities
 - Market capitalization = Current stock price X number of outstanding shares



We are going to talk about the concept of human capital or for intellectual capital if you look at this it was actually proposed by a senior in 1836 okay he use this term in 1836 and he quite this term that is known as intellectual capital, if you look at the literature will find the number of definitions of intellectual capital which has come from different disciplines like sociology, physiology, management economics okay so they have been a number of disciplines which are contributed.

You can say to this definition of intellectual capital okay so it has this term as evolve from different a capital place okay, now here I am taking one or two measure definitions which you can look at like intellectual capital is defined as the economic value of the structural capital and human capital and this relational capital of a company it means intellectual capital does not only can find to human capital right. it also include a structural capital and relational capital right the other definitions we say.

It is only human capital a structural capital but here a structural capital also include other capitals and human capital also includes these relational capital right there is a differentiation that is given by Edvinsson and he is trying to see that how we can calculate intellectual capital index of an organization and he says that it is nothing else that is the difference between book value and the market value of the company, so book value is what that is the balance sheet of organization right.

That is assets minus liabilities and that is how you create book value for an organization but when it comes to market value you are going to use a different formula that what is the current stock wise but number of outstanding sales, so that is the market capitalization so what is the difference between your book value and market value and that is how you are going to identify intellectual capital index of the organization okay right, so when this conception of intellectual capital we move further.

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Main components of intellectual capital

- Human Capital
- Organizational/structural capital
- Customer/relational capital
- Social capital



And try to define what are the main components of intellectual capital right now if you look at this it include 4 different kind of capital social capital was laided at later stage, so the first measure and more important or what you call relevant capital is known as human capital next is organizational capital or structural capital we will discuss what these capital means one by one and then we have customer or relationship capital and finally we have social capital right, so what you are going to discuss.

Now is the different form of capital one by one so look at the first type of capital that is known as.

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Human Capital

- Individual education, know-how, competence
- Ability to act in a variety of situations
- Experience, judgement, wisdom
- Knowledge, skill
- Motivation, attitude
- *Having individual talent*



Human capital what is human capital it includes some of knowledge and skill base of all individuals right, which may include this is education his skill his competence how he performs a jobs his experience his judgment right his motivation attitude okay it means basically that talent of the people so the talent of the people is known as human capital right now if you look at the talent of the people are human capital.

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Human Capital : some possible indicators



Here some examples of possible indicators that I have taken okay, how that is right they are, how they are going to be evaluated towards competencies and concern what is the average professional, what is the average of qualification, what is the level after knower, what is the percentage of personal who possess new ideas, how much value added by the personal costs so all these of the indicators of the human capital which basically reflects to the knowledge skill judgment what are the things that they do, what is they skill base qualification experience just make everything. It is a part of what you call human capital right, so moving from human capital we try to define.

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Organizational/structural capital

- *Infrastructural assets* such as reporting structures, operating systems, databases, methodologies, routines, codified knowledge, documents, technology, infrastructure and communications infrastructure, processes, procedures, concepts, models of how the business operates, incentives, performance measurements systems, culture, corporate values, clear vision, leadership
- *Intellectual property* such as patents, copyrights, design rights, trademarks, and trade secrets
- *Having work processes that leverage competitiveness*

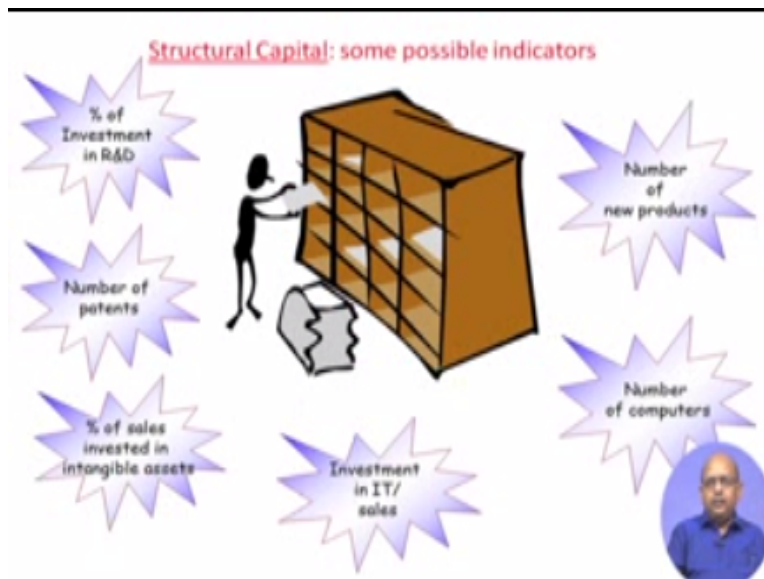


The other form of capital which is a component of intellectual capital, so the second one is organizational or structural capital. Now if you look at organizational or structural capital you have to see that what is organizational capital okay, organizational capital includes lot of assets which is a part of the infrastructure right, what is the reporting relationship systems, process structure, methodologies routines knowledge base of the organization, technology, communication infrastructure right.

How business is operates for his reward system, what is the management system, what is their culture, corporate values everything is a part of the organizational capital. Similarly the intellectual property that is created by the organization like they patents, copyrights, design rights, trademarks and trade secrets all of them are going to be part of what you call the organizational capital okay. So the idea is the process which is going to provide competitiveness to their organizations.

So based on these capital the organizations is going to achieve competitive advantages over their competitors because a competitors may not be following the same state of knowledge based the same set of technology or system culture or processes which are important for the organization, because these capital facilitate better performance through which an organization is going to compete with their counter parts, right. So this is what we know as organizational are structural capital.

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If you look at some of the indicators that what is your investments in R and D activities, how many new products you have, what is the number of computers as a part of infrastructure, how much investments you make in information technology or sales, what is the percentage of sales that you have interested in intangible assets okay, how many patents you have so these are some of the possible indicators it is not exhaustive list okay, but that will give an idea okay, these are part of a structural capital.

Either in the form of infrastructure or in terms of say structure system process or culture or in terms of patents so all this forms your structural capital right.

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Customer/relational capital

- Customer contracts, distribution channels, licensing agreements
- Relationships, reputation, image, loyalty, satisfaction
- Market share, alliances with customers, strategic partners, suppliers, and investors
- Includes brand, recognition, and goodwill
- *Understanding the value chain and knowing stakeholder and customer wants/needs in order to meet and deliver these rapidly and efficiently*

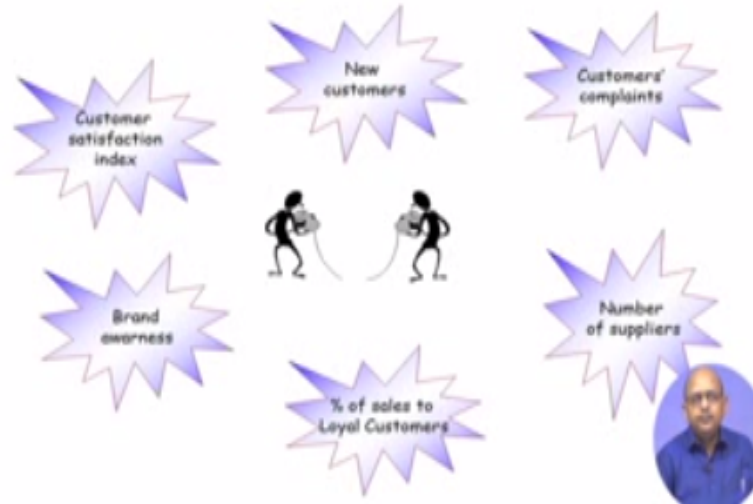


Now moving the third one that is known as customer or relationship capital okay, so if you look at the customer or relationship capital it depends up on your interaction and relationship with the customers right, so you have to say that how many customers you have, what kind of distribution channel you have, what is your licensing agreements with say companies okay, what s brand image, loyalty, how satisfies your customers are, what is your market share, whether what kind of alliances you have with customers, whether you have form strategic partnership with your vendors, suppliers and others okay.

So it includes also what kind of goodwill you have, what kind of recognition you have in the market, what is the brand value of your organization right, so this basically the valuation and the stack holder or customer relationship is very, very important okay, because it is changing very fast. So this is a part of what you call customer or relationship capital, look at some of the possible indicators of this.

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Relational Capital : some possible indicators



Like what is the customers satisfaction how many new customers you have add it how many customers complains are there okay how many new suppliers you have added what is the number of suppliers what is the percent of sales to loyal customers right, so if you look at in the figure it shows the kind of relationship that you need to develop right then your brand awareness okay so all this is a part of what you call relational capital right.

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Social capital

- Shared norms and social relationships, shared values
- Support, cooperative action, networks, trust, mutual understanding
- Asset value of human relationships, linkages between individuals
- *Having the capability to leverage individual talent and ability to meet organizational, customer, and community needs*



Moving from relational capital the next one we are going to discuss which was added at latest stage is social capital those social capital initially was not a part of the or a component of what you call intellectual capital but later on it was added as a part of intellectual capital which is known as social capital. So social capital is equally important because it contributes in effective performance of the individual so human capital is okay but if you do not have social capital probably human capital will not fascinated growth and development fully and that is why social capital was added it includes the kind of norms and values.

You have what kind of social relationship we had the workplace whether people co-operate what kind of networks or relationship that you have developed with this trust whether the relationship is based on trust and respect or not okay.

So basically we have going to create a value based on human relationship so the asset value of human relationship is very important because this human relationship is something that help you to contribute better, so you are going to not only leverage the individual talent ability but also look at the relationship okay because this relationship is going to help you to exceed okay if it is provided it is combined with talent and ability of the people right.

And that is why it is known as human relationship is also known as it for the organization okay and this is what we know as social capital okay, so what we have discuss so far is four different kind of capital that is starting with human capital, info structural capital or what you call structural capital then we talked about relationship capital and finally basically customer

relationship capital and finally social capital and all these capitals form together or known as intellectual capital right.

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Components of IC

- In 1995, IBM bought Lotus for \$3.5 billion. – 14 times Lotus' book value.

AllBusiness

IBM buys Lotus to get Notes, allows company to keep name and operate independently.

General Cash Received \$1.1 Billion Cash A Win-Win And Truly Unique Opportunity

Lotus Development Corp. has agreed to be acquired by IBM for \$3.5 billion in cash, and the agreement retains independence for Lotus employees who create notes, the

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So that is what you call intellectual capital there is one example okay component of intellectual capital see why we have given this example this is taken from the web actually, so if you look at the news it says that IBM buys lotus to get notes allow component to keep name and operate independently what does it mean? This reflects that how much money IBM has paid to buy lotus okay.

Now if you look at the book value of lotus that was 14 times less than the market value of lotus so when IBM wanted to buy it looked in to the intellectual capital that is the market value of the company it did not took in the financial value the book value which is basically nothing else the thing as they did not look at the assets and liabilities which the Lotus as a company had but they try to buy it at much higher price right. The idea was that they were looking at the market value not the book value. But at the same time we also find that they try to keep the name and let this company operate independently.

Now let us say part of IBM, so what I mean to say is the company was not influenced by the book value to buy it but by the market value okay. And this market while you look at from what the intellectual capital it means they try to look into the human capital the knowledge and skill

based of the people, look into the structure of it, structural capital look into the customer relationship.

And they found that it is much higher than the financial values and that is why the company went on to buy this company right. I have been purchased Lotus because of market value not the focus value and this example is given to explain that if the market value is higher you should go for it, you should not look at the book value of the companies. So the book value is not that important compare to market value.

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Survey of current practice

- Bontis (2001) cites a 1998 international survey of 368 companies (15% response rate) conducted by Arthur Anderson that finds
 - the majority of respondents believed that IC reporting would increase
 - around 75% of these firms already tracked two or more non-financial metrics
 - Around half believed that what was learned from measuring IC was as important as information received from the measures
 - But intellectual capital would not be included on the financial balance sheets in the near future.
 - external IC reporting would be done on a voluntary basis
 - perhaps IC measurement is more useful as an internal management tool?



Now I will discuss about some of the current practices which is followed, so there was a survey in 2001 which was conducted in 368 companies by consulting firm that is known as Arthur Anderson and they said that most of the companies today are reporting intellectual capital as part of their financial balance sheets okay. So now they are not only looking at the financial matters but they are also looking at non financial matrix okay. at least 50% of companies believe that if they are going to measure the capital.

It is going to provide them how much richer information compare to other kind of things right but the only problem most of the companies have that since they are not going to follow the standard accounting process it cannot be a part of what you call the balance sheet, financial balance sheet of the organization. Now we find that the trend has changed and many companies include some of the parts of intellectual capital as a part of their assets.

So some of them are doing voluntary you will find that many Indian companies I will talk about that later stage, that the level of high intelligent capital reporting by the Indian companies but most of these companies are doing at the voluntary basis. This is not mandatory for them to show it on their balance sheet, because balance sheet is basically book value okay. so we have to see that this intellectual capital are being measured by most of the companies.

Internally to satisfy them and to know what is the level of their intellectual capital index right so that they can realize their potential in terms of their capital and can make use significantly for the growth and the development of organization. So this surveys shows that yes gradually.

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Firms as Managers of Intellectual Capital



We are moving to this and now the companies are suppose to manage their intellectual capital right and now you look at this it shows 4 different kind of capital human capital, which basically is shown if you see that, it is basically contributing to the intellectual capital and creating intellectual assets actually. So this structural capital and human capital combine together leading to create a certain intellectual assets, in terms of the acutance trying programs data systems processes and these kind of things.

Which is the part of the intellectual capital asset of the organization as similarly if you look at this intellectual capital both so paintings copy writes state marks state secrets designers all kind of things are been created right and now you look at this is going to create business assess for the rounds like manufacturing facilities creating distribution networks having inventories of the customers and suppliers networks okay and developing organizational capabilities okay.

And that helps you to commissionaire your products okay because you have created integral property that is going to help you to go for better commercial to that you can create market value for yourself right and that is how firms are managing intellectual capital in a big but I am trying to sell you tell you when I am talking about intellectual capitalize such that you need to understand the implications of understanding or consulting intellectual capital as a term see in the beginning as I told you that this is a macro level measure not at an individual level you are not going to measure intellectual capital eat the individual level.

But it is to measure by the organization level so the effort that organization has to measure have to make to measure that they have to find out the different form of capital whether it is human capital a structural capital or relationship capital as social capital and in whatever it is going to contribute to the business of the organization so that organization is able to grow for example you are going to use this assets to create something that is going to add value to the basics right this is going to help you to create manufacturing facilities distribution network so that suppose you are supply chain network is different.

So you can go for re structuring it is also going to ensure that your customer is maintained in terms of quality relationships commitment and these kinds of things are the similar things can be said about the suppliers and vendors also and it also helps to create and develop the capabilities of the organization that is very important now if you look at this relationship resources that how you are going to make use intellectual capital to create value for the weakness right for example if you create copy rights said marks.

And then you can make use can go for a commercial use of this with this business individual property you can go for more business for example you can go for licensing up your trading and say trademarks copyrights okay you can use your patterns to create product.

And services right you can go for better designing of the product and services at the same time you have developed certain trade secrets which is going to help you to achieve competitors advantage you know that if you look at some of the big companies they never say buy will they trade secrets because that is apart a intellectual property so this intellectual capital sorry intellectual property which is the part of intellectual capital is very important because that is created as a part of intellectual capital exercise that is been carried on the darkness which not only helps the organization to develop and grow but also help you to achieve complete advantage in the long thank you very much.

