

International Conference on Intellectual Capital Management ICM2009

INSTITUTE FOR ADVANCED STUDIES IN BASIC SCIENCES  
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# Intellectual Property and Intellectual Capital:

## a new classification model

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# Outline

- Introduction
- IP and competitive advantages
- Previous IC classifications
- Proposed classification model
- Conclusion

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# IP and competitive advantages

Liberalization of markets

Expansion of what is tradable

Strengthening of IP regime

The growing importance of increasing return

Decoupling of information of flow from goods and services

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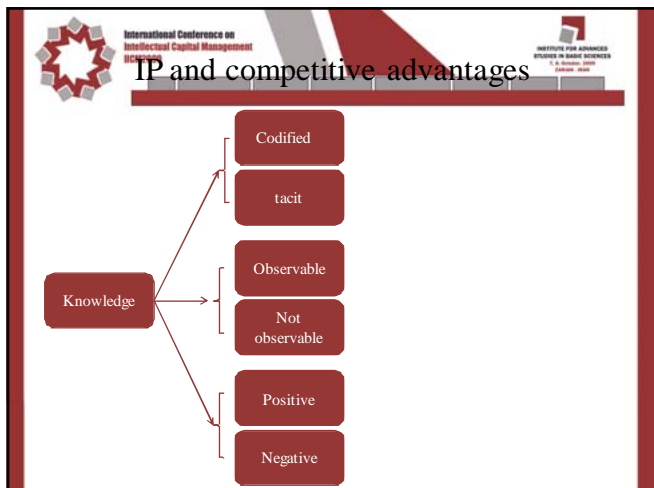
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**IP and competitive advantages**

> Protection power on knowledge assets

		IP right	
		<i>Loose</i>	<i>Tight</i>
Inherent replicability	<i>Easy</i>	Weak	Moderate
	<i>Hard</i>	Moderate	Strong

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**IP and competitive advantages**

> Inherent Tradability of Different Assets (Teece, 1998)

Characteristics	Know-How/IP	Physical Commodity
Recognition of trading Opportunities	Inherent difficulty	Posting frequent
Disclosure of attributes	Relatively difficult	Relatively easy
Property Rights	Limited (patents, trade secrets, etc.)	Broad
Item of Sale	License	Measurable units
Variety	Heterogeneous	Homogeneous
Unit of consumption	Often Unclear	Weight, volume, etc.
Inherent Tradability	Low	High

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**IC: Definition**

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Edvinsson and Malone (1997):  
A source of intangible assets that often don't appear on the balance sheet.

Brooking (1997):  
The difference between the book value and the market value.

Bontis (1999):  
The collection of intangible resources and flows.

Ross et al. (1997):  
The sum of knowledge of company's members and practical translation of this knowledge (i.e., trademark, patent, brand).

Stewart (1999):  
Intellectual material - knowledge, information, IP, experience that can use to create wealth.

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**IP in IC classifications**

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Skandia Navigator (Edvinsson & Maloni, 1997):

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    graph TD
      MarketAsset[Market Asset] --> FinancialAsset[Financial Asset]
      MarketAsset --> IntellectualCapital[Intellectual Capital]
      IntellectualCapital --> HumanCapital[Human Capital]
      IntellectualCapital --> StructuralCapital[Structural Capital]
      HumanCapital --> InnovationalCapital[Innovational Capital]
      StructuralCapital --> OrganizationalCapital[Organizational Capital]
      StructuralCapital --> CustomerCapital[Customer Capital]
      OrganizationalCapital --> ProcessCapital[Process Capital]
  
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**IP in IC classifications**

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Intellectual Capital-Index (Ross et al. , 1997)

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    graph TD
      IntellectualCapital[Intellectual Capital] --> HumanCapital[Human Capital]
      IntellectualCapital --> StructuralCapital[Structural Capital]
      HumanCapital --> attitude[attitude]
      HumanCapital --> IntellectualAgility[Intellectual agility]
      IntellectualAgility --> competence[competence]
      StructuralCapital --> Relationships[Relationships]
      StructuralCapital --> organizational[organizational]
      Relationships --> ResearchDevelopment[Research and Development]
      organizational --> ResearchDevelopment
  
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# IP in IC classifications

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Brooking's Intellectual Capital Value Scheme (1996)

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graph TD; IC[Intellectual capital] --> MA[Market asset]; IC --> HCA[Human centered asset]; IC --> IA[Infrastructural asset]; IC --> IP[IP asset];
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# IP in IC classifications

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Bontis (2001)

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graph TD; IC[Intellectual capital] --> HC[Human capital]; IC --> RC[Relational capital]; IC --> SC[Structural capital]; IC --> IPC[IP capital];
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# New classification model

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- ✓ Socks of knowledge
- ✓ Flows of knowledge
- ✓ Enablers of knowledge

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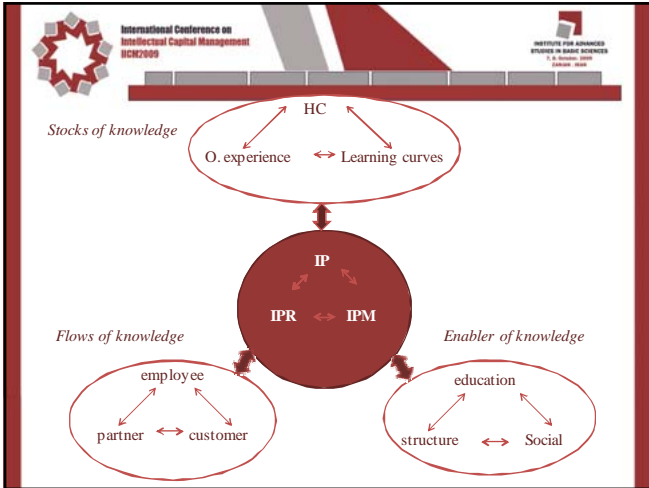
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### Stocks of Knowledge

Dimensions	Sub-factors	References
Human capital	Competence	Ross et al. (1997), Brooking (1996), Edvinsson & Malone (1997), Sveiby (1997), Stewart (1997), Bounfour (2003)
	Attitude	Ross et al. (1997), Brooking (1996), Edvinsson & Malone (1997), Sveiby (1997), Stewart (1997)
	Intellectual agility	Ross et al. (1997), Brooking (1996)
Intellectual property	Amount of IP	Ross et al. (1997), Brooking (1996), Edvinsson & Malone (1997), Sveiby (1997), Stewart (1997)
	Market value of IP	Teecce (1998)
Organizational memory	Organizational memory	Boudreau (2002)
Learning curves	Market value of IP	Teecce (1998)

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### Enablers of Knowledge

	Measures	References
Structural capital	Technology	Ross et al. (1997), Brooking (1996), Edvinsson & Malone (1997), Sveiby (1997), Stewart (2001)
	Process	Ross et al. (1997), Brooking (1996), Edvinsson & Malone (1997), Stewart (1997)
	R & D	Ross et al. (1997), Brooking (1996), Edvinsson & Malone (1997), Sveiby (1997)
Social Capital	Culture	Ross et al. (1997), Sveiby (1997)
	Legal mechanism	Sveiby (1997), Teecce (1998), Brooking (1996)
	Protection power over IP	Teecce (1998), Brooking (1996)

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# Flows of Knowledge

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Measures	References
Relationship among employees	Sullivan (2001), Boudreau (2002)
Relationship with Customers	Ross et al. (1997), Brooking (1996), Edvinsson & Malone (1997), Sveiby (1997), Stewart (1997), Sullivan (2001), Bounfour (2003)
Relationship with Partners	Ross et al. (1997), Sullivan (2003), Moon & Kym (2006)
Relationship with Suppliers	Ross et al. (1997), Sveiby (1997), Stewart (1997), Sullivan (2001)
Relationship with Stockholders	Ross et al. (1997), Sullivan (2001)
Interaction with communities	Boudreau (2002)

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# Conclusion

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- ✓ Regarding essential role of IP, it could be considered as new element in the classification of intellectual capital in order to study its relationship with other elements .
- ✓ Statistical analysis with large number of respondent could be used to evaluate relationship within each component of stocks of knowledge, flows of knowledge and enablers of knowledge.
- ✓ Because of broadness of the notion of IC, it is necessary to evaluate the indices proposed for each factor of IC in specific industry.

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