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Factors Influencing Knowledge Management

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Chapter Objectives

- ❖ Examine why KM solutions might have different impacts on performance, depending on the circumstances
- ❖ Recognize some of the factors affecting the suitability of alternative KM solutions, and understand the nature of their impacts

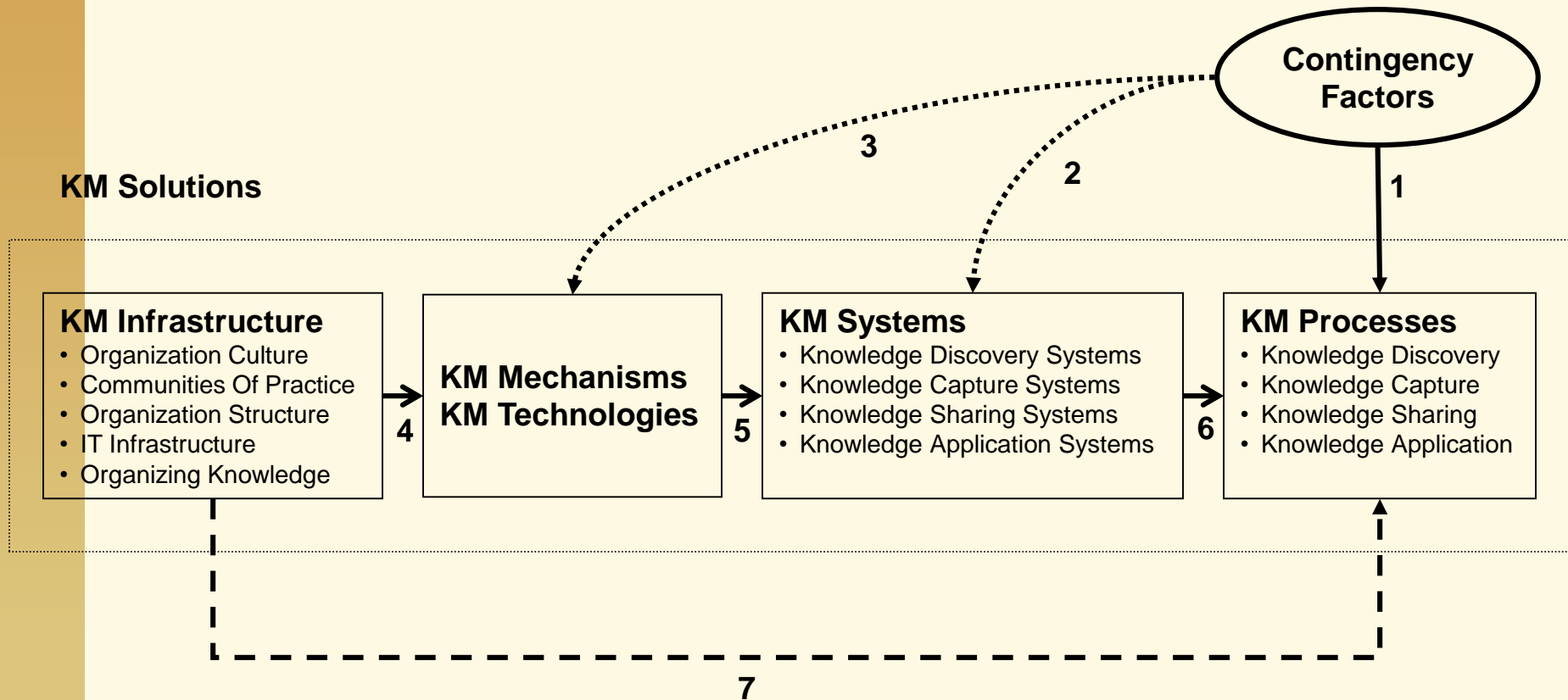
Universalistic View of KM

- ❖ There is a single best approach of managing knowledge, which should be adopted by all organizations in all circumstances
- ❖ Knowledge sharing is recommended as useful to all organizations, although we believe that direction may sometimes represent an equally effective but more efficient alternative.

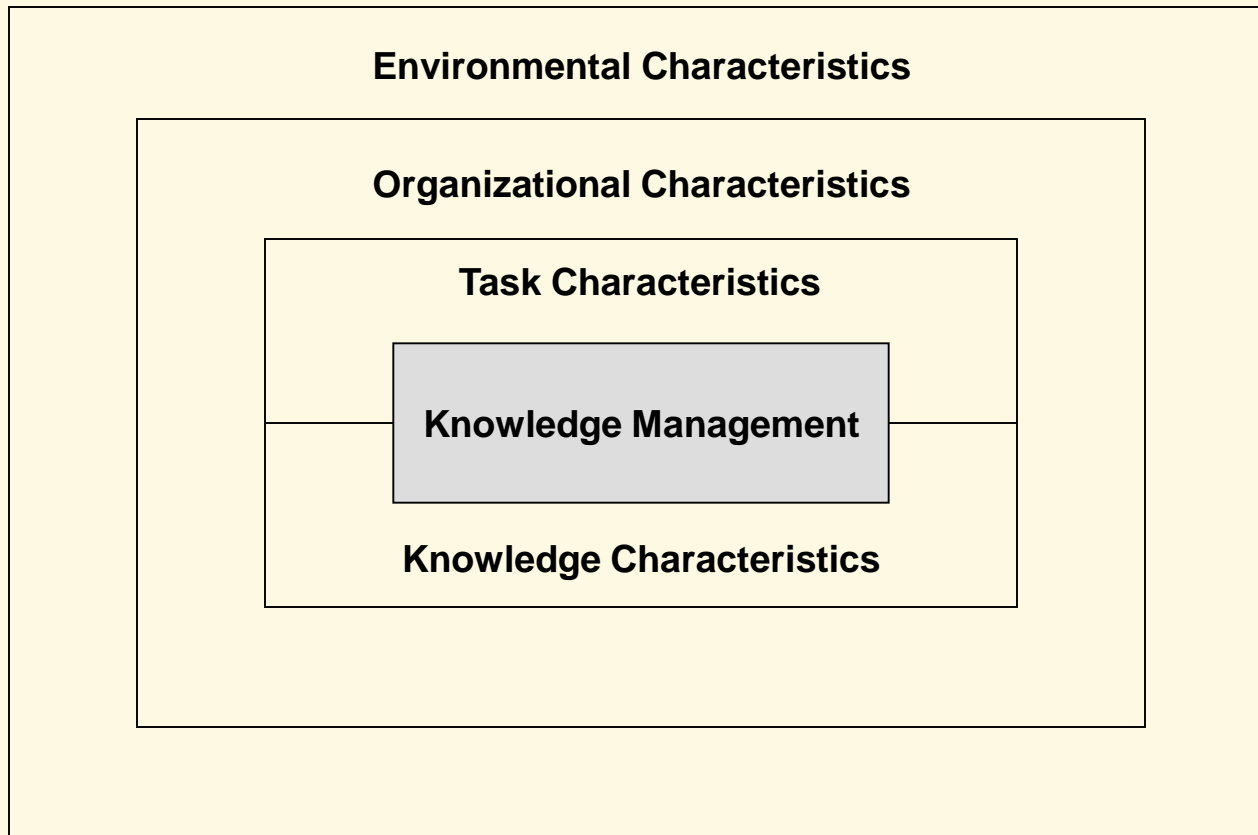
Contingency View of KM

- ❖ Contingency view suggests that no one approach is best under all circumstances
- ❖ Contingency perspective considers the path to success to include multiple alternative paths, with success achieved only when the appropriate path is selected

Contingency Factors and KM Solutions



Categories of Contingency Factors



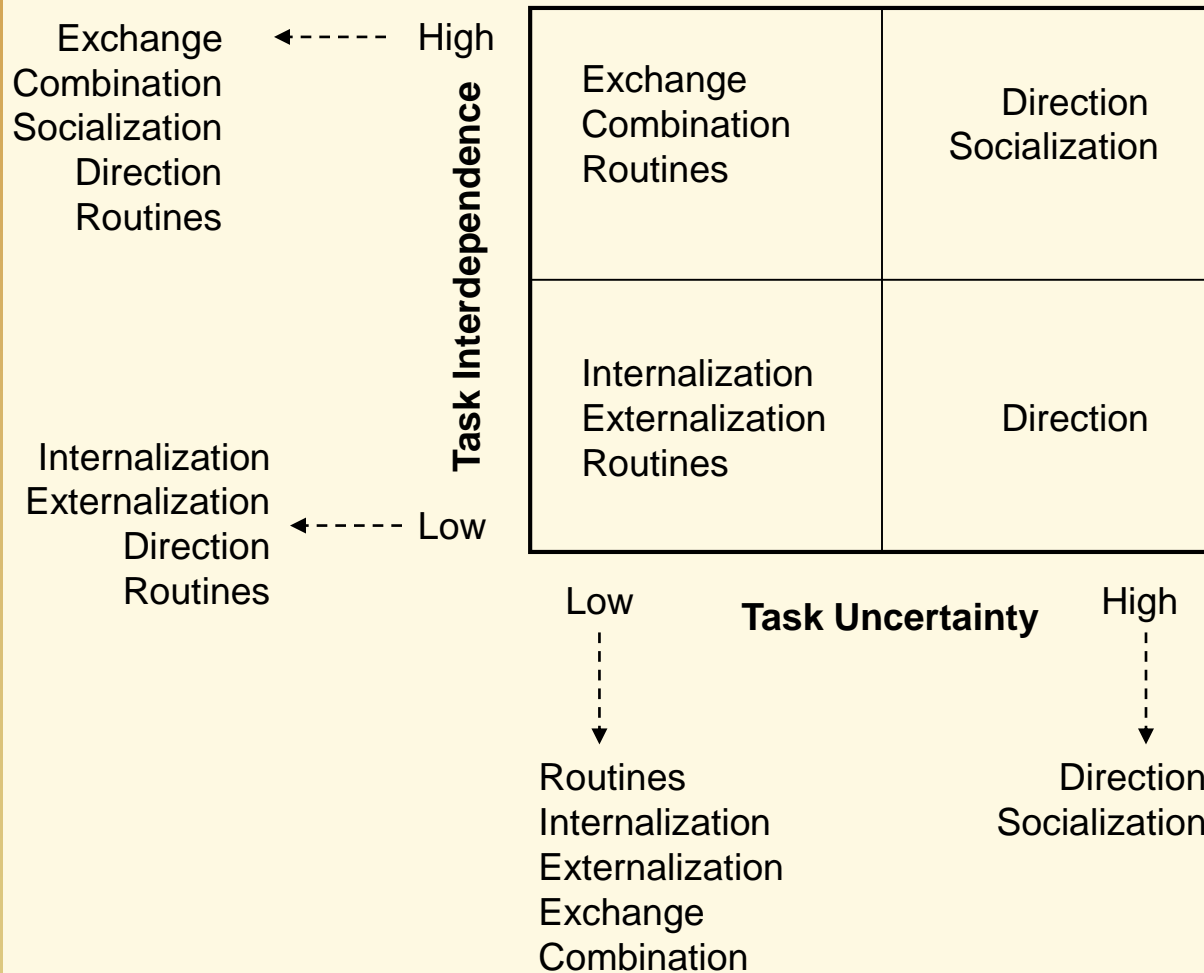
Task Characteristics

- ❖ KM processes that are appropriate for an organizational subunit depend on the nature of its tasks
 - Task Uncertainty
 - Task Interdependence

Task Uncertainty

- ❖ Task uncertainty is argued to reduce the organization's ability to develop routines, and hence knowledge application would depend on direction
- ❖ When task uncertainty is high, externalization and internalization would be more costly due to changing problems and tasks
- ❖ When task uncertainty is low routines can be developed for the knowledge supporting them

Effects of Task Characteristics on KM Processes



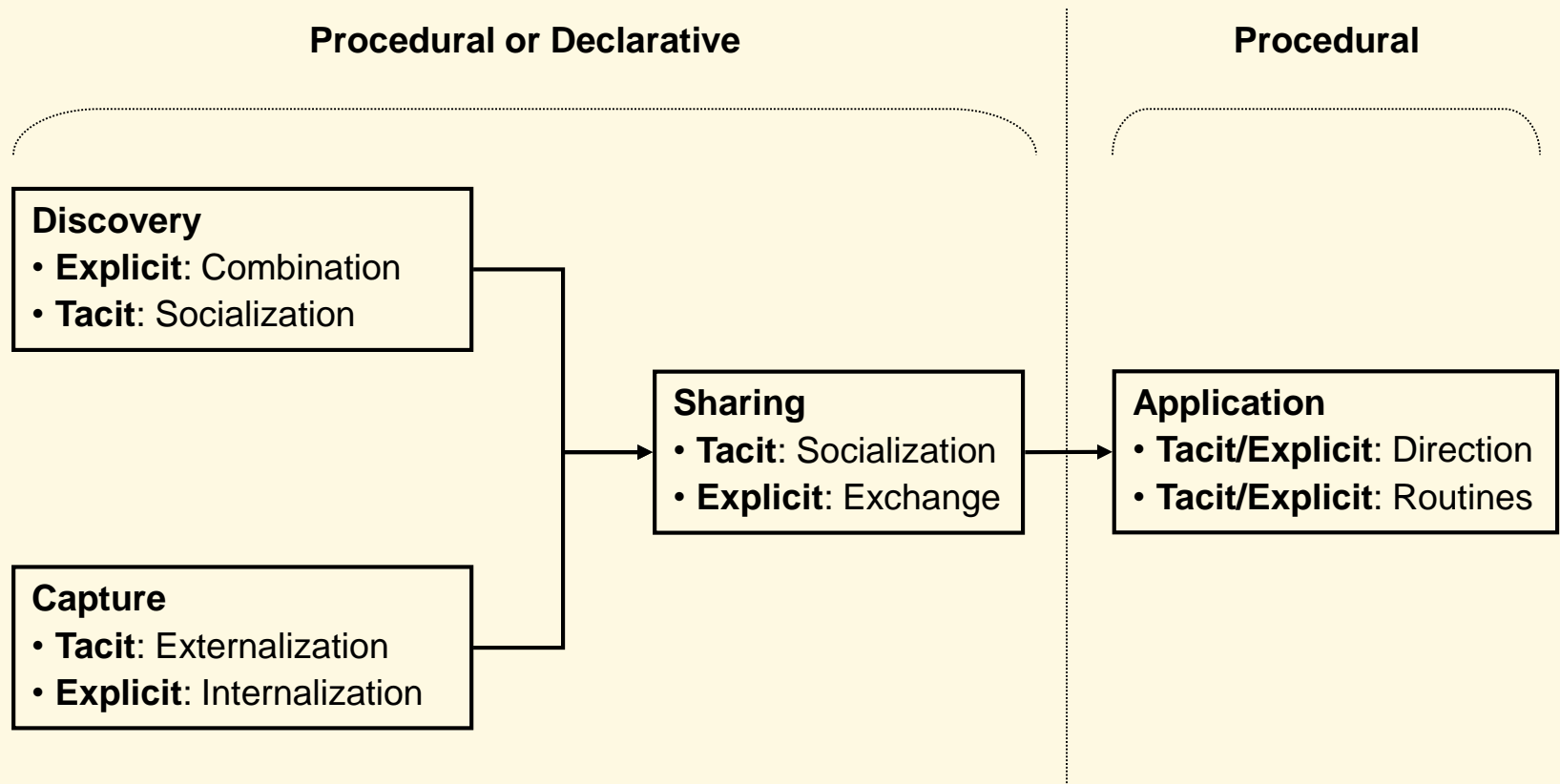
Task Interdependence

- ❖ Indicates the extent to which the subunit's achievement of its goals depends on the efforts of other subunits
- ❖ Performance of interdependent tasks relies mainly on dynamic interaction in which individual units of knowledge are combined and transformed through communication and coordination across different functional groups

Knowledge Characteristics

- ❖ Explicit vs. tacit
- ❖ Procedural vs. declarative
- ❖ General vs. specific

Effects of Knowledge Characteristics on KM Processes



Procedural and Declarative Knowledge

- ❖ Procedural knowledge focuses on the processes or means that should be used to perform the required tasks, such as how to perform the processes needed to achieve the specific product design
- ❖ Declarative knowledge focuses on beliefs about relationships among variables

Effect of Environmental and Organizational Characteristics on KM Processes

Characteristic	Level/Type	Recommended KM Processes
Organization Size	Small	Knowledge sharing (socialization) Knowledge application (direction) Knowledge discovery (combination, socialization) Knowledge capture (externalization, internalization)
	Large	Knowledge sharing (exchange) Knowledge application (routines) Knowledge discovery (combination) Knowledge capture (externalization, internalization)
Business Strategy	Low cost	Knowledge application (direction, routines) Knowledge capture (externalization, internalization) Knowledge sharing (socialization, exchange)
	Differentiation	Knowledge discovery (combination, socialization) Knowledge capture (externalization, internalization) Knowledge sharing (socialization, exchange)
Environmental Uncertainty	Low	Knowledge sharing (socialization, exchange) Knowledge capture (externalization, internalization)
	High	Knowledge discovery (combination, socialization) Knowledge application (direction, routines)

Identification of Appropriate KM Solutions

- ❖ Assess the contingency factors.
- ❖ Identify the KM processes based on each contingency factor.
- ❖ Prioritize the needed KM processes.
- ❖ Identify the existing KM processes.
- ❖ Identify the additional needed KM processes.
- ❖ Assess the KM infrastructure.
- ❖ Develop additional needed KM systems, mechanisms, and technologies.

Appropriate Circumstances for Various KM Processes

KM Processes	Contingency Factors						
	Task Uncertainty	Task Interdependence	Explicit (E) or Tacit (T) Knowledge	Procedural (P) or Declarative (D) Knowledge	Organizational Size	Business Strategy*	Environmental Uncertainty
Combination	Low	High	E	P/D	Small/Large	D	High
Socialization for Knowledge Discovery	High	High	T	P/D	Small	D	High
Socialization for Knowledge Sharing	High	High	T	P/D	Small	LC/D	Low
Exchange	Low	High	E	P/D	Large	LC/D	Low
Externalization	Low	Low	T	P/D	Small/Large	LC/D	Low
Internalization	Low	Low	E	P/D	Small/Large	LC/D	Low
Direction	High	High/ Low	T/E	P	Small	LC	High
Routines	Low	High/ Low	T/E	P	Large	LC	High

Low Cost – LC; Differentiation – D

Prioritizing KM Processes for Doubtfire Computer Corporation

Contingency Factors KM Processes	Task Uncertainty = High	Task Inter-dependence = High	Tacit Knowledge	Procedural Knowledge	Organizational Size = Small	Business Strategy = Low Cost	Environmental Uncertainty = High	Number of "Yes"	Number of "OK"	Number of "No"	Cumulative Priority Score ^a
Combination	No	Yes	No	OK	OK	No	Yes	2	2	3	3.0
Socialization for Knowledge Discovery	Yes	Yes	Yes	OK	Yes	No	Yes	5	1	1	5.5
Socialization for Knowledge Sharing	Yes	Yes	Yes	OK	Yes	OK	No	4	2	1	5.0
Exchange	No	Yes	No	OK	No	OK	No	1	2	4	2.0
Externalization	No	No	Yes	OK	OK	OK	No	1	3	3	2.5
Internalization	No	No	No	OK	OK	OK	No	0	3	4	1.5
Direction	Yes	OK	OK	Yes	Yes	Yes	Yes	5	2	0	8.0
Routines	No	OK	OK	Yes	No	Yes	Yes	3	2	2	4.0

^a: "Yes"=1; "OK" =0.5; "No"=0

Conclusions

- ❖ Distinguished between universalistic and contingency views
- ❖ Examined a variety of contingency factors, and the effects they have on the suitability of alternative KM processes



Thank You !

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