Chapter 6:

Nine internationalization processes

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Introduction to the study

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Chapter 6: Nine internationalization processes

Aims:

- Description internationalization of nine case companies by reconstructing chronologies
- Discussion of internationalization in nine case companies: motives to internationalize, country/market selection, entry mode choice, and service types offered

Chapter 7:

Progression in internationalization processes

Chapter 8: Conclusion of the study

6.1 Introduction

This first analytical chapter has three particular objectives. First, the nine logistics companies studied are introduced by reconstructing their overall internationalization process. Nine chronologies are put forward that sketch the context in which the episodes of progressions are embedded that are scrutinized in the following chapter. Second, in depicting the chronologies attention is paid to the three core issues in service internationalization highlighted in the literature review of chapter 2. More precisely, internationalization in each of the logistics companies is characterized in terms of underlying country/market selection and entry mode choice. A brief cross-case discussion summarizes particular findings concerning these issues in the logistics companies examined. Third, the service packages of the nine companies studied are assessed with respect to the four service types defined in the new classification introduced in chapter 3. Furthermore, the impact of the service types on entry mode choice throughout the internationalization of the nine logistics providers studied is addressed.

The chapter is further structured in four sections. Section 6.2 starts with a brief description of the case companies, their service packages and some general characteristics of the logistics industry in the Benelux. In section 6.3 the internationalization processes of the nine logistics companies are put forward. Section 6.4 summarizes the findings concerning the three key issues in internationalization in the companies studied, whereas section 6.5 deals with a discussion of the service types offered. The chapter ends with concluding remarks in section 6.6.

6.2 Nine case companies in the logistics sector

In appendix III the nine <u>case companies</u> are introduced with a brief description of their origin, current range of activities, geographical presence and operational structure. Table 6-1 highlights these main characteristics. We want to note that the indication of the annual turnover is only intended to give an idea of the size of the nine case companies. However, the figures need to be interpreted with caution. We experienced that it is difficult to obtain unambiguous turnover-figures or employment-figures. Apparently, logistics companies are often split up in different companies with independent legal structures for a wide variety of reasons. As such, obtaining clear figures proved to be very difficult.

Table 6-1: Overview of the characteristics of the nine case companies

Case company	Since	Annual turnover in EUR (2001)	Service package	Current geographical scope	Operational structure
C° AAA	1979	9.000.000	Transport Distribution Logistics	Benelux, Germany, Slovakia, Czech Republic, Switzerland, Austria, Italy, North-France, United Kingdom	2 sites with storage capacity in Belgium, and an administrative office in Eastern- Germany
C° BBB	1976	23.000.000	Transport Logistics	Benelux, Germany, Denmark, France and Italy	2 sites with storage capacity in Belgium
C° CCC	1962	46.000.000	Transport Forwarding Distribution	Europe	1 site in Belgium, subsidiaries in Sweden, the United Kingdom, France and Georgia
C° DDD	1993	3.000.000.000	Distribution Transport Forwarding Logistics	World, first priority is Western Europe, with decreasing priority in Eastern Europe, Asia-Pacific, America and Africa.	18 sites in Belgium, subsidiaries in 35 countries and agents in numerous other countries with a total representation around 500 offices all over the world
C° EEE	1944	600.000.000	Transport Logistics	Europe	30 sites throughout Europe i.e. the Netherlands, Belgium, Spain, France, Hungary, Poland
C° FFF	1928	100.000.000	Transport Distribution Logistics	Main focus Belgium but daily groupage to and from Austria, France, Germany, Hungary, Italy, Luxemburg, the Netherlands, Spain, Portugal, Switzerland and the United Kingdom	7 sites in Belgium, subsidiaries through JV in Italy, Germany and Great-Britain
C° GGG	1987	2.500.000	Logistics Transport	Just-in-time delivery for companies doing business all over Europe with a focus on Belgium, the Netherlands, France, & Germany	1 site in Belgium
С° ННН	1995	12.160.000.000 (total Belgian subsidiary)	Logistics	Mainly Europe but increasing markets in North America, Latin America, and Asia	warehouses in Sweden, Belgium, Germany, Italy, USA, Singapore, and Mexico
C°III	2001	Unknown	Forwarding	Europe, Asia, North and South America	offices in France, Belgium, the Netherlands, Germany, United Kingdom, Italy, Malta, Spain, Portugal

In summarizing the <u>service packages</u> offered by the nine case companies, four basic service activities are distinguished, more specifically, transport, distribution, forwarding and logistics. Giving an exact definition that sets these activities apart is difficult because of continuous overlaps in daily practices and the terminological ambiguity caused by catchy terms (Lieb and Miller, 2002; van Hoek, 2000; Luo et al. 2001). Nevertheless, Table 6-2 describes the four activities and discusses them with regard to the basic service characteristics intangibility and inseparability. With regard to inseparability, only the presence of the customer in the service delivery process is discussed. The three interaction dimensions – duration, frequency and nature of interaction are assumed to depend on the particular service types offered within one service activity (e.g. routine logistics versus tailor made logistics).

Table 6-2: Four service activities within the service packages

	Transport	Distribution	Forwarding	Logistics
Description	Organizing and carrying out the physical movement of full and/or partial loads from one location to another. Goods are picked up at the location of the sender, regrouped in case of partial loads at the warehouse of the transporter and moved to the location of the addressee(s).	Organizing and carrying out the delivery of small loads of goods to a wide variety of destinations. Goods are picked up at the location of the sender, regrouped at the warehouse of the distributor and moved to the location of the addressees.	Organizing the movement of goods. Service is mainly aimed at arranging for complete paperwork and selecting transport companies to carry out the movement.	Organizing, implementing, and controlling (a part of) the flow and storage of goods and related information from point of origin to point of consumption.
Intangibility - service outcome	Intangible Movement of goods	Intangible Movement of goods	Tangible Paperwork that organizes movement of goods	Intangible Management of flow of goods
Intangibility - service process	Bundled with goods. Requirements for organizing transport – administrative office that captures sales, planning and administration & warehouse in case of regrouping partial loads Requirements for executing transport – vehicles suited for national and international transport and drivers	Bundled with goods. Requirements for organizing regrouping & distribution – warehouse for transshipment & administrative office that captures sales, planning and administration Requirements for executing transport – vehicles suited for distribution and drivers	Bundled with goods. Requirements for organizing transport of goods – administrative office that captures sales, planning and administration.	Bundled with goods. Requirements for organizing transport, storage & handling- administrative office that captures sales, planning and administration & warehouse Requirements for executing transport – vehicles and drivers
Inseparability – presence of service customer	Continuous physical presence of goods during service delivery. Contact with customer before, during and after service delivery can occur in person or through the use of technology.	Continuous physical presence of goods during service delivery. Contact with customer before, during and after service delivery can occur in person or through the use of technology.	Contact with party that has to organize transport, this can occur in person or through the use of technology.	Continuous physical presence of goods during service delivery. Contact with customer before, during and after service delivery can occur in person or through the use of technology.

To conclude this introduction, the nine case companies operate in a <u>sector</u> that can be characterized as highly competitive. The liberalization of the European market in the early 1990s drastically reformed the competition in road haulage. Today, road haulers in the Benelux are faced with competition from countries in Southern and Eastern Europe that are less handicapped by high wages and a lack To escape the ensuing price-based competition, road haulers in the Benelux aim at offering more value-added services to switch to a quality-based competition. For instance, many road haulers expand their service packages with other activities such as forwarding, distribution and/or logistics. In this regard, a positive attitude of manufacturing companies towards outsourcing their logistic activities together with the central location of Belgium in Europe offers interesting opportunities to logistic services providers. Especially, the central location makes Belgium and the Netherlands ideal to install European Distribution Centers (EDC) from which the European markets can be approached. Running an EDC requires a wide geographical coverage. For road haulers this means that they need to offer rides to and from numerous destinations, not only in Europe but also in the rest of the world. Today, two trends characterize the way in which road haulers/logistics companies organize and implement a wide coverage. The larger companies use formal alliances and acquisitions to obtain a large network that contains an extensive range of destinations and services. The smaller companies join forces with competitors/colleagues that offer similar or complementary services and destinations to be able to offer a broad network as demanded by the market.

6.3 Nine chronologies

The subsequent nine chronologies are put forward in a discussion followed by a summarizing figure. The discussions reconstruct the focal incidents in the internationalization of the case companies. The period that captures the episode(s) of progression examined in the next chapter is indicated with a vertical line in the left margin. The summarizing figures graphically complement the descriptions particularly addressing the company's internationalization in terms of geographic presence (i.e. country/market selection), operational structure (i.e. entry mode choice), and the internal (i.e. motives) and external environment. Table 6-3 provides a legend to interpret the nine figures.

Table 6-3: Overview of issues captured in the chronologies

Issues highlighted	Refers to:						
External environment	Key external events that typify the general context.						
Motives	Internal drivers that affect the international development.						
	Terminology used in the nine chronologies is based on Table 2-4						
	and Table 2-5 in chapter 2.						
Influential factors on Entry	Factors that affect the selection of an entry mode. Terminology						
Mode Choice	used in nine chronologies is based on Table 2-6 in chapter 2.						
Operational structure	Entry modes used in foreign markets. Abbreviations refer to:						
	HQ: international activities originally organized in the provider's						
	home market						
	WOS – G, A: wholly owned subsidiary via greenfield investment						
	or acquisition						
	JV : joint venture with other service provider						
	Partners – E, O&E: cooperation with partners for execution						
	and/or organization of particular services						
	Agents: cooperation with independent service provider						
Influential factors on	Passive (P) versus more active (A) approach in						
Country/Market Selection	internationalization. Influential factors that affect the selection						
	of a country/market. Terminology used is based on discussion in						
	section 2.3.2.3 in chapter 2.						
Geographical presence	Sequence of countries in which case company delivers services.						
Service	Sequence in which composition of service package occurred.						

To simplify the overviews, reorganizations in the domestic market (e.g. opening own cleaning station or maintenance division, building extra storage facilities or new administrative offices) are not included unless they particularly affected the case company's internationalization.

In some instances, the internationalization process could not be reconstructed in its greatest details because we either wanted to respect the confidentiality as agreed upon with the respondents or we just did not manage to obtain all the information. For instance, to watch over confidentiality, general terms are used to describe the parties involved and the destinations serviced instead of referring to exact names and places. With regard to completeness, in some case companies, the interviewed managers remained very vague about particular issues despite repeated probing. Triangulation by means of interviewing experts and clients, or scrutinizing secondary sources brought relief to some extent but did not always solve the lack of clarity.

6.3.1 Case company AAA

The chronology of C°AAA's internationalization can be summarized in following periods.

1979-1985:

In 1979, C°AAA was founded as a one-man business. During the first four years, C°AAA was a subcontractor providing trucking in the Benelux for another road carrier. In 1983, the founder felt confident enough to approach the market directly and a sales team was set up. Soon orders for transport in the Benelux were the result.

1985:

Two years later, clients were sought in Germany as well. The expansion to the German market occurred because C°AAA finally complied with the strict requirements to obtain a German transport license. Furthermore, sales efforts were aimed at the German market because the founder had numerous contacts in that market due to its previous working experiences in the German transport industry in the 1970s. These contacts were picked up and led to specific assignments. Until the late 1980s, C°AAA developed its routes in the Benelux and Germany.

1989-1990:

In the early nineties, C°AAA took the opportunity to follow several clients with regular but limited transport needs to new destinations – i.e. North of France, Austria, Switzerland and Italy. Management of C°AAA responded positively to these requests because they represented a low-risk exploration of new markets. C°AAA's skills in finding return cargo at foreign destinations was refined in this period. Due to costs, an extra destination is only feasible when an adequate amount of backloads can be realized.

Consequently, management of C°AAA approached local road carriers, chartering offices and potential shippers in the new regions.

In the same period, a more active approach characterizes the expansion into the Czech Republic. After the fall of the Berlin wall in 1989, many Western European companies entered the promising Eastern European market to set up production sites to benefit from the low wages in these countries. The sales team of C°AAA addressed delocating client companies in Belgium and Germany and offered trucking services for the new flows of goods between Western and Eastern Europe. In order to guarantee a good service quality, C°AAA temporarily participated in a Czech company and together they offered frequent lines between Belgium and the Czech Republic. Today, the Czech company and C°AAA are no longer financially linked, but they still work together by executing subcontracting services for each other.

1990s:

During the 1990s, the service offer of C°AAA with respect to routes to foreign destinations did not change. The main emphasis was put on clients with transport needs to and from destinations in the Benelux and Eastern Europe, i.e. Eastern Germany, the Czech Republic and Slovakia; whereas transports to the other destinations, i.e. Italy, Austria, Switzerland and France were carried out on a regular but less frequent basis. In the second half of the 1990s, growth was expected to occur by extending the traditional transporting services with more value adding logistic services such as warehousing and handling.

2000:

In 2000, C°AAA expanded its facilities with a second site in Belgium that offered a better geographic location to approach the French and British market. The expansion was possible by means of the acquisition of a

failing transport company. Management of C°AAA bought and restructured the company to strengthen C°AAA's service offer concerning transport to France and Great Britain. During the previous months, management had repeatedly experienced that for several of C°AAA's current clients France and Great Britain were becoming very important markets. Carrying out transport from headquarters to these countries was rather inefficient due to a difficult starting location in terms of structural traffic jams. Therefore, obtaining another location improved C°AAA's service package to comply better with their current clients' needs. Additionally, intensive market-seeking efforts were done to attract new clients for transports to the new destinations by means of direct mailings and company visits.

Moreover, in 2000, C°AAA opened its first foreign facilities with an administrative office in Eastern Germany to better manage the numerous transports to and from destinations in Eastern Europe. At that time, C°AAA highly specialized in Eastern European routes and the idea to open facilities in one of those countries slowly grew in the mind of the founder. Soon Eastern Germany was seen as the most interesting location on the basis of European regulations with respect to driving hours. Management of C°AAA choose a particular region in which they wanted to open an office and information was sought to select a suited office area. A particular office location was chosen after a coincidental tip of one of C°AAA's local business contacts.

In sum, C°AAA is a road carrier active in Europe that stated to expand in a slow way. Expansions are strongly driven by particular client needs and a continuous search for cost reductions, which led to a rather passive selection of new markets. Currently, activities abroad are organized from Belgian headquarters and the coordination office in Eastern Germany. The statement: "You always try to follow customers." (C°AAA's founder-CEO) perfectly typifies C° AAA's internationalization process which is depicted in Figure 6-1.

Figure 6-1: The internationalization process of C°AAA

External environment		>1980s Increasing transport	outsoure	cing	Increasing mo	ovement of flow	Eastern Europe os of goods to Ea portunity & threa			
Motives			. Managerial urge . Networks		. CF	. Managerial urge . CF . Costs		. CF . Growth . Costs	. CF . Growth	
Influential factors on EMC	. nature service		. nature service . firm resources		The selection . attitude tow . nature servi . availability . EM characte . availability					
Operational structure	HQ		HQ		HQ Partners-0	HQ Partners-0		WOS-G	HQ (extra site)	
Influential factors on C/MS			A . distance . market potential		P . distance . market potential	A/P . costs . market potential		A . market potential	A/P . market potential	
Geographical presence	Benelux		Germany		Switzerland Italy Austria N.France	Czech Republic		Eastern Europe	France UK	
Time	1979		1985		1989	-1990		20	000	2003
Service	Transport				Logistics					

6.3.2 Case Company BBB

The chronology of C°BBB's internationalization can be summarized in following periods.

1976-2003:

From the early beginning in 1976, the founder of C°BBB realized that offering transport services within Belgium was rather difficult because of the high number of competitors in the local market. He realized that he had to pre-empt another part of the Belgian transporting business. The answer appeared to be simple. Some of the industrial companies located in the area in which C°BBB was set up, were internationally active and these shippers needed international trucking. As such, the founder of C°BBB approached these international companies and cooperation with two industrial shippers soon led to the situation in which C°BBB offered regular transport to various destinations in the Benelux, Denmark, and Germany. In the following four years the successful cooperation with these two shippers was extended with routes to two new countries, namely Italy and France. Hence, at that time, the two multinational clients fully determined the choice of the various destinations with the agreement of C°BBB's founder. Almost thirty years later, C°BBB is still specialized in the same countries. Although the particular destinations within these countries were slightly adapted in response to particular client demands, the majority of routes is kept unchanged but offered to an extensive and diverse client portfolio today.

With regard to the international activities, management of C°BBB argues that they deliberately specialized in a limited number of foreign destinations. Due to the high volumes that they transport to and from

these locations, the company can compete with local market players. According to C°BBB's management, the first entry in a new market should always occur through a specific client that guarantees a certain turnover for a particular period. In this first phase, return cargo is indirectly obtained from local transporting companies and chartering offices that have loads for Belgium. In a second phase, once the main players and their activities are known, C°BBB switches to a direct approach of local shippers. Moreover, management of C°BBB experienced that when they offer frequent rides to a destination, foreign clients start to contact C°BBB. As such, they stressed that clean trucks with clear signing and professional truck drivers are the best advertising and market seeking tactic.

New clients are attracted on the basis of high quality services (i.e. punctual departures and arrivals, fast transit times) for sharp prices with regard to the routes. Some clients look for a one-stop-shopping solution and want to outsource all their transport assignments to C°BBB even though several of the wanted destinations are lacking in the C°BBB service package. In order to help these clients, C°BBB relies on preferred partners to which they subcontract these assignments. Management of C°BBB argues that the particular demand of clients for other destinations sometimes triggers the assessment of adding a destination to the current portfolio. However, until now, the opportunity was never judged convincing enough.

1980s:

Although the stability in foreign destinations might suggest that C°BBB is a very conservative company, two major developments in the offered service activities prove otherwise. In the middle of the 1980s, the sector of plastics gradually switched from packed goods to bulk goods. C°BBB decided to follow this trend and invested in bulk vehicles to adapt to the changed transport needs.

1990s:

In the early 1990s, a second trend, namely a shift towards outsourcing logistic activities characterized the plastic sector. Again, C°BBB decided to go along with this trend which resulted in expanding the original facilities with bulk silos. At the end of the 1990s, the original site had no more expansion opportunities and a logistics center was opened at a second location.

2001:

In 2001, C°BBB opened an administrative office in Italy. Two reasons affected the decision to set up an Italian office. First, management of C°BBB repeatedly experienced that the Italian market had a large growth potential for C°BBB's services. Second, a C°BBB employee with Italian roots was keen to represent C°BBB in Italy. However, already six months after opening the office the experiment was ended. Despite the employee's long standing experience in C°BBB, and a thorough preparation of the expansion, he did not like living and working in Italy. He just did not manage to work in isolation from the mother company. Management of C°BBB did not hesitate and soon decided to close the office and again approach the Italian market from the Belgian home base.

2003:

Overall, management of C°BBB sees no reason to change their current internationalization strategy that is fully organized and managed from the Belgian headquarters. Today a third trend seems to characterize the plastic sector that contains C°BBB's main clients. Apparently, most plastic producing companies increasingly centralize the decisions with regard to logistics. Consequently, management of C°BBB sees no need for local representations in each market in which they are present. Furthermore, by means of present telecommunication techniques the operational activities abroad can be perfectly followed and management from the home base. For

instance, truck drivers are in constant contact with headquarters by means of cellular phones and global positioning systems, while commercial and administrative employees are trained to approach clients in their native language.

In sum, C°BBB is a company that is active in Western Europe. Already in the early years of the company's existence, two clients determined its international radius of action that has not changed since then. The international nature of C°BBB's transport activities is driven by a managerial urge for a strong competitive advantage combined with intense client following. The international activities of C°BBB's client companies determined the selection of the foreign destinations to which C°BBB offers transport. Today, new destinations are regularly considered but until now not judged interesting enough. C°BBB's organizational structure is solely situated in Belgium. Overall, the internationalization of C°BBB can be captured by the statement: "Our balanced portfolio of destinations is one of the fundaments of our organization." (Marketing and sales manager). The chronology is depicted in Figure 6-2.

Figure 6-2: The internationalization process of C°BBB

External			ational transport	Trend to bulk	Trend to outsource		Trend to cer	ntralize			
environment	Trend f	to internatio	nal transport	transport	logistics		logistics de	cisions			
Motives	>1976-198 . Manageri . CF . Networks	al urge	>1980-20 profit & g	103: growth goals drive assessme	nt new destination		. Growth . Networks				
Influential factors on EMC	The selection of working from HQ is affected by: . attitude towards internationalization . nature service . availability firm resources . EM characteristics, especially control . availability partners in markets that are less important										
Operational structure	HQ	НQ			HQ (silo's)	HQ (extra logistics)	WOS-G				
	Р	Р					Α				
Influential factors on C/MS	. industries . market potential	. industries . market potential					. market potential . access market				
Geographical presence	Germany Denmark Benelux	Italy France					Italy	7			
Time	1976	1977	1980s		1990s	1998	2001	2003			
Service	Transport co	nventional car	go	Transport bulk	Logistics						

6.3.3 Case Company CCC

Following periods capture the chronology of C°CCC's international development.

1962-1972:

C°CCC was set up in 1962 and during the first years, the activities of C°CCC were restricted to trucking services of conventional cargo in Belgium. However, in the late 1960s, transport by sea considerably changed due to the increasing use of containers. This implied that the requirements of inland transport by means of road haulage changed as well. The founder of C°CCC believed in the growing opportunities of container transport and he invested in special vehicles. To fully exploit the capacity of the new vehicles, the Belgian radius of action was enlarged with the North of France, i.e. Paris. Clients were found in the harbor of Antwerp, where the founder of C°CCC met French shippers with transport needs for goods from Antwerp to Paris. The new focus on container transport became a success and in the early 1970s, transport of other types of loads was completely stopped.

1972-1979:

In 1972, the internationalization of C°CCC really started. In Paris the founder met a French lady who represented a French-Swedish forwarding company. The two parties agreed to cooperate in which the forwarding company attracted clients and assignments whereas C°CCC provided trucking between Paris and Gothenburg. The cooperation was continued even when the mother company of the forwarding company changed a few times due to acquisitions. During the 1970s, the majority of C°CCC's assignments came from this cooperation. Some trucking was done in Belgium, but routes between France and Sweden accounted for the greater part of turnover.

1979-1981:

In 1979, the Swedish mother company of the forwarding company decided to close the French division due to major reorganizations. This was a crucial moment for C°CCC because almost all trucking assignments came via the French-Swedish partner and C°CCC's existence depended on the collaboration. The direct bonds with the Swedish mother company were broken but the founder of C°CCC managed to convince the French representative to carry on their long-standing cooperation. In particular, C°CCC's management decided to set up a French subsidiary in 1980 for which the French lady started to work. As such, C°CCC did not only expand geographically with respect to its organizational structure but also its activities were diversified as the original trucking services were complemented with forwarding. Due to the connections of the French lady, C°CCC kept in contact with Swedish forwarders, and trucking between France and Sweden remained the core activity of C°CCC.

1982:

In 1982, C°CCC got the opportunity to further expand its forwarding activities by establishing a separate forwarding division in Belgium. At that time, the trucking department of C°CCC worked with a large Swedish forwarding company that had an international network of agents including a Belgian one. However, in 1982, the Belgian agent went bankrupt and the Swedish forwarding company needed another representative. Supported by the good experiences in the French market, management of C°CCC proposed the Swedish company to set up a 50-50% joint venture to organize forwarding activities in Belgium. The Swedish forwarding company agreed and C°CCC started with running the forwarding establishment in Belgium. Hence, the organizational structure of C°CCC grew in the sense that the trucking division was flanked by a forwarding division. In the second half of the 1980s, C°CCC's forwarding activities went well and in cooperation

with other players in the international network of the Swedish company, C°CCC arranged and executed transport to and from Belgium, Sweden, Denmark, Norway, Finland and the United Kingdom. In 1984, the service activities were complemented with distribution aimed at the Belgian market.

1988:

In the late 1980s, the Scandinavian transport industry could be characterized as very volatile with continuous acquisitions and reorganizations. C°CCC's joint venture partner was repeatedly taken over, and in 1988 a radical reorganization occurred because the Swedish forwarding company was captured in a large merger with other leading road, maritime and air transport companies. With regard to the Belgian situation, the new owners decided to close the joint venture in which C°CCC participated. A fierce discussion arose because C°CCC did not want to loose its forwarding activities captured in the joint venture. Eventually, agreement was reached and C°CCC became the sole owner of the former joint venture and C°CCC's forwarding division could carry on with its activities under a new name.

1988-1990:

For C°CCC an important drawback of the separation from the Swedish group was the loss of the international network in which the forwarding activities were embedded. Consequently, the period between 1988 and 1990 was very difficult for C°CCC because new suitable partners in Scandinavia and Great Britain were hard to find due to continuous acquisitions that disturbed the fresh relationships with new partners. Again, in 1990, C°CCC lost a partner due to a take-over and ensuing reorganization. At that time C°CCC realized that another approach was required. Eventually, C°CCC's management contacted ex-employees from the Swedish forwarding company that was acquired and restructured in 1988. At that time, the ex-

employees worked for the new mother company but did not feel at ease in the giant company. Management of C°CCC convinced these people to start their own forwarding company with C°CCC as a crucial partner in Belgium. Eventually, the ex-employees decided to comply with C°CCC's request and both a Swedish and British forwarding office was set up.

Mid 1990s:

A few years later, in the middle of the 1990s, management of C°CCC expected more efforts from the two forwarding partners in Sweden and Great Britain. A thorough analysis of the problems soon revealed that the two offices did not have enough financial resources to address their markets more intensively. Given the strategic importance of the Swedish and British market for C°CCC, management decided to participate financially in the two partners by becoming the majority shareholder. In 1995, the Swedish partner was acquired and a year later, the British partner was taken over. This solution gave the two forwarding offices more resources whereas C°CCC kept access to the main client networks in these countries.

1998-2003:

In 1998, C°CCC set up a subsidiary in Georgia. This was the result of charity rather than strategy. Contacts with highly placed governmental representatives led to setting up a joint venture in which C°CCC delivered knowledge and cheap vehicles to encourage the revival of the local economy. Today the Georgian subsidiary works totally independent from the other C°CCC's establishments.

Additionally, in 1998, the founder of C°CCC pleaded for an expansion of the transporting activities in rail transport in order to specialize in intermodal transport solutions. At that time, governments started to encourage initiatives to diminish road transport in order to tackle the structural

congestion problems and to increase traffic safety. An intensive information search led to a highly specialized Swedish company that had a lot of experience with intermodal and rail transport. C°CCC acquired the Swedish company to incorporate their intangible knowledge of and tangible material for rail transport. Unfortunately, the expansion into rail transport turned into a failure due to many environmental hindrances that restrict the possibilities of intermodal transport. Currently only a strict minimum of the rail transport capacity is actually used. Nevertheless, the investment needs to be paid for. Consequently, the last five years, no other initiatives could be taken.

In sum, C°CCC is a logistics company that is mainly active in Northern Europe with trucking, forwarding and distribution services. The internationalization process is the result of a strong managerial urge that led to active and passive networking with other forwarding companies to define C°CCC's radius of action. The country/market selection is predominantly a consequence of the intense cooperation with Swedish forwarding groups. The organizational structure of C°CCC contains a broad base in Belgium that coordinates the company's three complementary activities. Additionally, C°CCC has wholly owned subsidiaries in France and Georgia that manage forwarding and trucking activities whereas the establishments in Sweden and Great Britain are focused on forwarding services. Generally, the founder-CEO emphasized that for them: "Internationalization is a matter of intense partnerships." The chronology is graphically summarized in Figure 6-3.

Figure 6-3: The internationalization process of C°CCC

External environment	Late 196 Advent of transpor	t container Continuous acquisitions in Scandinavia that lead to Gove gigantic logistics groups interr													Govern	ate 1990s: Governmental support for Intermodal transport			
Motives		. Managerial urge . Networks	. Networks		. Networks . Growth		. Networks	. Networks	. Networks			. Managerial urge . Growth		. Networks	. Managerial urge . Growth	. Managerial urge . Growth	. Managerial urge . Costs . Networks		
Influential factors on EMC			The selection of a particular EM is dependent on . attitude towards internationalization . nature service . availability firm resources & experience . EM characteristics, especially control & access to networks . availability partners																
Operational structure	Ę	Partners-O	Partners-O		WOS-G		٧L	Partners-O	Partners-O	National		WOS-A		Partners-O	WOS-A	WOS-A	WOS-G		
Influential factors on C/MS		A	Р		А		A/P P P A A A/P Country/market selection is considered a matter of getting access to a highly potential market, this is assessed					A/P	A/P	A/P					
Geographical presence	Belgium T	France T	Sweden T		France F		Belgium F	Scandinavia	UKF			Belgium F		UK, AB F	Sweden F	UKF	Georgia T+ F+D		
Time	62	70	72	79	80		82	83	8	4		88		90	95	96	98	02	
Service	Transpo	rt (T)		Forw	arding ((F)			Distri	bution ((D)				•		Rail		

6.3.4 Case Company DDD

The internationalization of C°DDD can be summarized in following periods.

1993:

In 1993, C°DDD was the result of the severe restructuring of the parcels division of a Belgian public company. During the first four years, the main focus was put on reorganizing the original distribution activities in Belgium to obtain a profitable company. In 1997, C°DDD realized a break-even and soon international growth options were considered. In the early 1990s, top management of C°DDD became convinced that in order to survive the European harmonization, a logistic services provider had to turn into an international company by either building or entering a broad international network. Furthermore, top management believed that a future European logistic services provider should be capable of offering a one-stop-shopping concept in which optimal door-to-door solutions could be created on the basis of a multitude of activities (e.g. intermodal transport, warehousing, forwarding) in a worldwide network.

1996-1998:

Inspired by the strong wish to become a strong international player, the internationalization of C°DDD slowly started in 1996. The increasing success with the distribution concept in the Belgian market, already led the top to decide to enter the Dutch market. The geographical and cultural proximity between the Belgian and Dutch market made this expansion an evident 'international' experiment. However, due to limited resources, C°DDD had to get into an association of independent Dutch transport and distribution companies, and together these parties duplicated C°DDD's distribution concept.

Furthermore, in 1996, C°DDD first learnt about the joint venture that was set up by the German railway and the logistics division of an internationally active German industrial group. The joint venture was developed to offer a wide range of logistic services to the German market where the German railway contributed its railroad capacity and the other party its logistics experience. Unfortunately for the parent companies, the joint venture could not live up to the expectations and made gigantic losses. In 1997, C°DDD heard about the negotiations of the industrial group to sell its logistics division to an American group. However, the negotiations between the industrial group and the American holding fell through and management of C°DDD approached the industrial holding.

1998:

Eventually, C°DDD could acquire both the logistics division of the industrial holding and their joint venture with the German railway. This acquisition suddenly turned C°DDD into a very international company because the acquired companies, especially, the logistics division of the industrial group, had branches in 25 countries all over the world (Europe, Asia, America). As such, the acquisitions provided C°DDD with their own international network of agents and subsidiaries that management considered crucial for future revival. Moreover, the takeover of the companies implied strengthening the original core of C°DDD with competitive distribution activities in Germany, next to obtaining other logistic activities such as strong air & sea forwarding and general road haulage. As such, C°DDD came a step closer to the ideal of offering a one-stop-shopping concept to European shippers.

1998-2000:

Since 1998, the restructuring of the acquired offices and activities led to other purchases to strengthen C°DDD's position. A restructuring was needed because the obtained network was primarily designed to serve the

German market although it had the potential to be used in a much wider European context. More particularly, in 1999, an Italian company was bought. At this time, top management of C°DDD gave priority to searching strong establishments in the Italian and French market to start the reorganization of the German oriented network. The reason was that Italy and France are two very important markets for the Belgian and German economies. As such, the search for a strong representation of C°DDD in these markets began. In Italy an interesting partner was rapidly found. With its acquisition, C°DDD got hold of another international company with a wide variety of strong branches all over the world including Africa. The search for a French partner proved to be more difficult, and no takeover could occur in 1999.

In addition, the network was further adapted with smaller changes like the replacement of agents in the acquired network with own subsidiaries in South Korea, the Philippines, and Portugal. Moreover, C°DDD reinforced its position in the Dutch market in 1999 with discontinuing the association of independent companies and acquiring two companies instead. Too many differing opinions hindered the association to be workable and as soon as resources became available, a full control mode was used for the Dutch market.

C°DDD's choice between agents or subsidiaries was and still is predominantly driven by the strategic importance of a market. Top management wants to make C°DDD a strong European player. Hence, within Europe, preference is given to own subsidiaries that can offer a wide variety of logistic services within European countries. However, the network is extended outside Europe as well to comply with the worldwide logistics needs of European clients. Nevertheless, the activities outside

Europe are restricted to the organization of particular services; third parties are brought in to provide the actual services. As such, C°DDD is generally represented by agents outside Europe.

2000-2003:

In 2000, C°DDD found and acquired a French group. Contrary to the acquisitions of the German and Italian group, the network of the French organization was predominantly located in France. Nevertheless, taking over the French group gave C°DDD access to the crucial French market. Additionally, further reorganizations led to adaptations such as the replacement of agents by subsidiaries within Europe, and the engagement and closure of agencies. In the reorganizations, the aim was to strengthen the complementarity of the activities and regions to become a strong network. In 2001, more acquisitions occurred of smaller players to enrich C°DDD's position in certain markets, for instance in the Netherlands and France. In 2002, a strategy of integration and consolidation affected the further reorganizations. For instance, C°DDD attracted an agent for Bolivia, expanded its range of activities in the USA and Canada with warehousing, and rationalized the Portuguese and Spanish activities by combining them into one subsidiary.

In sum, C°DDD is an internationally active logistics company that is mainly focused on the European market but with worldwide branches instrumental to the needs of the European clients. The internationalization process occurred very rapidly through taking over European companies with international networks of wholly owned subsidiaries and agents. The main driver behind the acquisitions was a solid managerial urge to build an international network to become a strong European player. Country/market selection within Europe was the result of active screening of market potential and passively going into opportunities. This led to a presence in almost 40 countries all over the world with wholly owned subsidiaries in strategically important markets and independent agents elsewhere. According to the CEO, for C°DDD is: "Internationalization is taking over foreign groups with strong international networks". Figure 6-4 summarizes the periods graphically.

Figure 6-4: The internationalization process of C°DDD

External environment	aimed	ium = central location Ed at European hinterland bean harmonization => be	•	· ·	> '98 Trend to 4F	PL & one s	stop sho	pping						
Motives			. Managerial urge . Proximity to market		. Managerial urge . Networks	. Managerial . Managerial urge . Networks . Networks		urge	obtained integrate	ous reorgani networks ir & consolida positions	order to			
Influential factors on EMC			. availability firm resources . availability partners		The selection of EM is dependent on . attitude towards internationalization . nature service . availability firm resources & experience . EM characteristics, especially control & access to networks . availability partners									
Operational structure	HQ		Partners-E&O		WOS-A Agents	WOS-A Agents	WOS-A	WOS-A	WOS-A Agents					
Influential factors on C/MS								A P ss to a highly potential to the possibilities of						
Geographical presence	Belgium		Netherlands		Germany + world	ltaly + world	Netherlands	France	Worldwide presence		ence			
Time	1993		1996		1998	199	99	2000	2001	2002	2003			
Service	Distribu	ution			Transport + For	warding +	- Logistic	cs						

6.3.5 Case Company EEE

The following chronology summarizes the different periods in C°EEE's internationalization process.

1944-1980s:

C°EEE was established in 1944. During the first fifteen years, C°EEE provided trucking services within the Netherlands. In the 1960s, the company steadily grew and started to carry cross-border goods between the Netherlands, Belgium, Luxembourg, Germany, France and Italy as a consequence of the growing international activities of C°EEE's clients. The order in which destinations in these countries were added to C°EEE's service package is no longer clear. Nevertheless, it was the client who took the initiative in these expansions and C°EEE followed if sufficient backloads could be found. During the 1980s, C°EEE was extended with offices abroad and taking over national and international companies. The development of new technologies, the pursuit of a more comprehensive range of services and a clear focus on volume and scale economies drove the company's rapid growth.

1982:

C°EEE's first foreign establishment was opened in Belgium in 1982. One of C°EEE's clients in the Netherlands expanded its activities into the Belgian market and asked C°EEE to follow them by investing in dedicated warehousing capacity. C°EEE complied with this request because management did not want to loose the client. Besides, the particular request of the client made it a rather low-risk investment.

Mid 1980s:

A few years later in the mid 1980s, C°EEE experienced a problem with finding backloads in France. The local market appeared to be unwilling to

outsource transporting assignments to a Dutch company. Nonetheless, France was an important market for C°EEE as large volumes of outward freight were obtained but these were not interesting without backloads to divide the costs. Management of C°EEE believed that by acquiring a French company, the problems could be solved. It would give C°EEE a strong foothold in the market with a local commercial staff and truck drivers that had access to clients and were familiar with local customs. Unfortunately, the expansion did not work out as planned. The acquired company had a lot of financial and structural problems including old trucks, unsatisfied clients and rebellious unions. Despite C°EEE's strong efforts, the situation did not change and management decided to close the subsidiary.

However, the French market was still considered very important. Soon after the closure of the acquired company, C°EEE assessed the possibility to make a fresh attempt with setting up a French subsidiary in another region. More particularly, an old mining area was considered very interesting due to high unemployment rates and ensuing low wages, governmental subsidies and the presence of various clients with whom C°EEE worked in the Netherlands. The second attempt turned out to be a success and the volumes of loads to and from France rapidly grew.

Late 1980s:

At the end of the 1980s, C°EEE was confronted with a difficult situation in Poland. Dutch truck drivers started to refuse to carry out routes to Eastern Europe because of difficulties with coping with the long waiting periods at the border crossings and the different mentality in these countries. Again management of C°EEE decided that the importance and growing potential of the Eastern European market for their clients was too vital to stop offering trucking services to these markets. Consequently, in 1989, a Polish office was set up that employed local truck drivers to carry out

trucking between Poland and the Netherlands. Furthermore, a local sales team was installed that had to search for clients with return cargo for Western Europe. Overall, the entry into the Polish market fitted well with C°EEE cost driven nature as the low wages of the Polish employees caused an additional advantage in relation to working with more expensive Dutch truck drivers.

1990s:

In 1990, C°EEE opened a first office in Spain to go along with their clients that increasingly exported to the Southern European country. The main tasks of the office in Barcelona was to employ and supervise a team of Spanish truck drivers and to search for backloads. Again, important cost reductions could be realized due to the lower wages in Spain compared to the Netherlands which benefited C°EEE's relation with its clients. In the middle of the 1990s, C°EEE continued the cost and market driven expansions by extending its local operations in France and Spain. France, additional subsidiaries were opened in another region to comply with the growing activity of the local petrochemical industry represented by international players. For C°EEE, the concentrated petrochemical industry contains important clients that the logistics provider wants to serve in various regions. Therefore, being present in the second region was considered essential. In Spain, the expansion to a second region was driven by higher unemployment and resulting lower wages in the South of However, expanding to this region was also possible because C°EEE's management was able to deepen their client relations with multinationals by convincing local establishments of these companies to outsource their transporting services to C°EEE.

2000-2002:

In 2000, the internationalization of C°EEE was affected by the acquisition of a Dutch road carrier that had various subsidiaries in Belgium, Germany,

and Scotland. Especially, the establishments in Germany and Scotland represented new opportunities for C°EEE. In Germany, two loss-making subsidiaries were closed whereas the one in the North of Germany was reorganized and used as a gateway to both the German and Scandinavian market. Again the lower wages in Germany offered an important cost benefit to organize and carry out transport to and from the Scandinavian market. Taking over the establishment in Scotland offered C°EEE a well informed access to a new market as well.

Additionally, in 2000, management of C°EEE acquired a Polish company to strengthen C°EEE's position in the Eastern European market. Driven by possible cost reductions and a growing market potential, a competitor was taken over. Extending the cooperation with client-multinationals to the newly entered region deepened relationships further. Similarly, in 2002, C°EEE continued the expansion in the Eastern-European market with the acquisition of a dominant Hungarian transport company. At the same time, new and dedicated facilities were set up in the Belgian market to comply with the requests of one of C°EEE's current clients. The new investments in the Belgian market represent the recent trends in the Western European market as it concerns a switch to value adding integrated logistics services. The organizing role of logistic services providers is stressed in C°EEE's original market.

In sum, C°EEE turned into an international established company since the 1980s. Driven by a strong managerial belief in close relationship with multinational clients and cost reductions through increases in scale, various establishments were set up abroad. In all cases, clients were followed or they were convinced to follow into markets with promising growth potential. Initially, international growth was realized through setting up subsidiaries via greenfield investments but later on C°EEE preferred taking over companies to obtain rapid and widespread access to foreign networks. The credo of case company EEE reads: "Internationalization is the result of active and reactive networking." The chronology of C°EEE is illustrated in Figure 6-5.

Figure 6-5: The internationalization process of C°EEE

External environment	>'60 increas internat shipper	tionalization	>'80 increa outsou shippe	urcing	French subsidies in former mining region	Fall Berlir Increasing Eastern E market	g importance	е	> mid'90 trend to lo goods	gistics for b	oulk	Europe Increa	 Trend to 4PL in We Europe Increasing flow of g in Eastern Europe 		
Motives		. CF	. CF	. Managerial urge . CF	. Managerial urge . CF . Costs . Export market incentives	. CF . Costs	. Competitive pressures . Costs		. Unique service . CF . Costs	. Growth . Costs . Unique service		. Growth	. Competitive pressures . Costs	. Unique service . CF	
Influential factors on EMC				. attitude . nature s . availabi . EM cha . availabi	towards internation service lity firm resources racteristics, especially partners, inter	tion of EM is dependent on owards internationalization rivice y firm resources & experience acteristics, especially control, costs & access to networks y partners, intensity competition ental requirements									
Operational structure	Ð	Ą	WOS-G	WOS-A	WOS-G	WOS-G	WOS-G		WOS-G	WOS-G		WOS-A	WOS-A	WOS-G	
		Р	Р	A/P	A/P	A/P	A/P		A/P	А		Р	Α	Α	
Influential factors on C/MS				. Costs . Market potential	. Costs . Market potential . Subsidies	. Costs . Market potential	. industries . Market potential		. Industries . Market potential	. Market potential		. Access . Industries	. Industries . Market potential	. Industries	
Geographical presence	Netherlands	Benelux, France, Germany, Italy	Belgium	France	France	Spain	Poland		France	Spain		Scotland Germany	Poland	Hungary Belgium	
Time	1944	1960	1982	r	nid '80	1989	-1990	\sim	19	95	~~~	20	00	2002	
Service	Transp	oort	Logist	ics											

6.3.6 Case company FFF

The chronology of the C°FFF's internationalization process can be captured in following periods.

1928-1980:

In 1928, C°FFF was set up as a one-man business. During the first 50 years, the main activity of C°FFF was offering transport within Belgium.

1980s-2002:

In the 1980s the growing internationalization of C°FFF's clients led to a demand for international routes. Management of C°FFF decided to comply with the changed needs by cooperating with foreign road carriers to build an international network in which loads can be exchanged. Hence, through participating in a network C°FFF can restrict the risks related to doing business internationally but at the same time go along with altered customer demands and offer transport solutions across Europe.

Today, C°FFF offers daily rides to a wide range of Western European destinations. Through intensive cooperation with foreign transporters, C°FFF has access to dense transport networks in the Benelux, France and Germany. Moreover, strong links exist with partners to supply destinations in Italy, Spain, Portugal, Austria, Switzerland, and Scandinavia on a regular and frequent base. The order in which these foreign destinations were added to C°FFF's service offer is not clear anymore. However, the commonality between the destinations is that they are all the result of particular requests by clients. In no case, C°FFF took the initiative to extend the network in a specific direction, every expansion was client driven. The particular selection of a new network partner depends on the regional scope of its services and the equivalence with C°FFF's approach.

Win-win relations are needed to obtain a stable and long-lasting cooperation.

1994:

In 1994, C°FFF opened its first and only foreign establishment in Italy. The purpose of the Italian office is to organize further transport of the loads that arrive in Italy by train. High-volume palletized goods are transported by rail from Belgium to Italy. The advantages are that the costs are lower compared to road transport and that larger loads can be moved. C°FFF preferred to set up an own office to control the coordination activities and to benefit from the cost advantages.

1997:

In 1997, a business unit of C°FFF entered into a joint venture with a North-American company to offer a very innovative and specialized range of logistics services to the automotive sector. In particular, the joint venture was aimed at providing pre-assembly and transport solutions for automotive producers and their first tier suppliers. For C°FFF's business unit the joint venture implied an entry into a growing sector with which they had no experience. The North-American company had experience with the sector and with pre-assembly activities but needed logistics partners to service the European market. As a result of the cooperation, C°FFF became part of a group with several subsidiaries in Germany and Great Britain. The North-American company engaged these subsidiaries before getting into a joint venture with C°FFF's business unit. The location of the German and British subsidiaries was solely determined by the location of influential automotive sites, i.e. the decision centers with regard to car design.

2000:

In 2000, management of C°FFF considered the possibility of opening its European Distribution Center to American clients. Various sources

indicated a large potential of American exporters with the need for a strong logistic service provider to give them access to the European market. At that time, the EDC facilities were built and organized for two multinational clients located in Belgium that outsourced the majority of their supply chain management to the warehousing business unit of C°FFF. However, sufficient spare capacity was available to handle the goods of American clients and distribute them to Western European markets. Despite an extensive preparation process with several market-seeking efforts, no particular American clients could be convinced to make use of C°FFF's service package. On the basis of this experiment, C°FFF's top management concluded that the future of C°FFF lies predominantly in the Belgian market. The international activities are limited to participating in a strong network of transporters instrumental to the international transport needs of Belgian located shippers.

In sum, C°FFF is a Belgian company that offers international transport by means of a dense network of foreign road carriers. In building the network, C°FFF was driven by particular client demands in terms of foreign destinations. Setting up the Italian office and entering in the Belgian-Canadian Joint Venture were not driven by specific internationalization aims but had more operational reasons. In C°FFF internationalization means that: "International activities are set up for Belgian located clients via a network of foreign partners". The company's international chronology is pictured in Figure 6-6.

Figure 6-6: The internationalization process of C°FFF

External environment		Large potential American exporters									
Motives		. CF . Competitive pressure		. Costs . Growth	. Growth	. Excess capacity . Growth . Managerial urge					
Influential factors on EMC		The selection of EM is d . Attitude towards inter . Availability suitable pa . EM characteristics . Nature service	nationalization	EM characteristics	EM characteristics						
Operational structure	HQ	Cooperation with partners transport	– 0&E for the execution	of international WOS-G Italy	JV Belgium						
Influential factors on C/MS		P . Access market . Distance . Market potential		A .Distance	A/P . Market potential	A . Market potential					
Geographical presence	Belgium	Expansion transport service	Expansion transport services to destinations in Benelux, Germany, France, Spain, Italy, Scandinavia, Austria, Switzerland, Portugal								
Time	1928	1980	1990	1994	1997	2000 2003					
Service	Transport	Distribution	Logistics								

6.3.7 Case company GGG

The chronology of C°GGG's internationalization is characterized by following periods.

1987:

C°GGG was established in 1987. Originally, the main activity was the import and distribution of detergents and general chemicals that were bought globally and sold in Belgium to a wide variety of users. In this period, the founder of C°GGG worked closely with traders in Germany to obtain high quality goods although he also travelled around the world to close deals. For the distribution activities, C°GGG organized the transport lanes but made use of specialized air, sea and road carriers to carry out the particular transport assignments.

1989:

At the end of the 1980s, management of C°GGG bought land in an industrial park to build a warehouse. At that time, the decision was taken to diversify its market offer and extent the import and distribution activities with services such as storage, repacking, and labeling. C°GGG worked in a very competitive sector and differentiation was needed to obtain a clear positioning and profitable client portfolio.

1990-1994:

In the early 1990s, the general attitude towards the protection of the environment started to change, leading governments to issue all kinds of safety rules and licenses. C°GGG saw this trend as an opportunity for a competitive advantage and decided to adapt and extend the new storage facilities to comply with the latest regulations. Furthermore, management of C°GGG went for each additional permit. In this period, C°GGG's activities obtained an exclusive service character as the focus was fully put

on the storage and distribution of goods owned by third parties. Management of C°GGG stopped with buying and selling chemical products that absorbed too much financial resources. Furthermore, the targeted market was gradually shifted from general chemicals to fine chemicals for which a wide area of value added logistics could be offered which was more in line with the new competitive advantage that C°GGG aimed at.

1994:

C°GGG came in contact with an American multinational in the sector of chemicals and pharmaceuticals that recently had entered the European market with taking over warehouses and setting up sales teams within the most important European markets. However, the increasing rigid environmental legislation and ensuing controls complicated exploitation of the various warehouses. At the same time, C°GGG had a warehouse that was fully in line with the latest regulations and had employees trained and licensed in handling dangerous goods but management did not succeed in finding the right clients yet. The two parties found each other quite coincidentally and agreed to cooperate. Initially, the depot in the Netherlands was closed and all warehouse activities were transferred to the Belgian facilities of C°GGG. As such, the Dutch market was entirely supplied from Belgium. The American company kept its local sales team to approach customers and negotiate deals whereas C°GGG was responsible for the warehousing and distribution of the goods. For the distribution, C°GGG predominantly relied on specialized third parties.

1995-1997:

The American company was pleased with the cooperation in the Dutch market and decided to extend the collaboration by closing the Belgian, French, and German depot, in 1995, 1996, and 1997 respectively. In each case, all warehousing and distribution activities were outsourced to C°GGG

that delivered the various markets from its Belgian facilities. At that time, C°GGG attracted other clients as well with similar assignments. The shift towards the segment of fine chemicals and pharmaceuticals was fully realized in this period.

1997-2003:

C°GGG's client portfolio was further refined with Western-European located companies. In attracting and approaching new clients, C°GGG's specialized services and central location in Europe were the two key competitive arguments. Although, working from the Belgian facilities had never been a problem, management of C°GGG started to realize that for future growth, setting up additional warehouse facilities might be necessary outside Western Europe. Numerous explorations of a wide variety of potential growth markets - i.e. expansion to India, China, Russia, Czech Republic, and Romania – were done. In 2002, C°GGG was approached by a Belgian governmental institution that offered advice and support in setting up foreign investments. C°GGG's management agreed to accept the support and the Chinese market was extensively examined. However, no concrete action in China is decided upon yet despite its promising potential. However, in 2003, C°GGG took the opportunity and bought land in a new industrial park in Romania. Currently, management negotiates to obtain all the required licenses and building permissions.

In sum, C°GGG is a very international company due to the specialized character of the service that it offers. The market is too small to be restricted to Belgium. Therefore, a strong managerial urge drives the internationalization of C°GGG. Furthermore, international market presence is the consequence of an intense search by C°GGG's management complemented with particular client needs or network hints. Until recently, the international activities were solely organized and executed from the Belgian facilities. Nevertheless, in the near future the service concept is going to be duplicated in the Eastern European market by setting up a warehouse in Romania and possibly in China. According to C°GGG's CEO-founder "Our highly specialized services require an international market". The chronology of the company is captured in Figure 6-7.

Figure 6-7: The internationalization process of C°GGG

External environment	High competition in trading sector	> 1990s Growing e	nvironmental consci	ousness					
Motives			e facilities ronmental licenses clients in new	. Managerial urge . Unique service	. Network/CF	. Network/CF	. Network/CF		. Managerial urge . Growth . Small domestic market
Influential factors on EMC				The selectic affected by . nature ser . attitude to . EM charac	: vice owards in	nternation	alization		. nature service . governmental requirements
Operational structure	HQ			HQ	HQ	HQ	НΩ		WOS-G
Influential factors on C/MS				A/P Country/m locating assessing	interesti	ng indust	ries and		A . Market potential . Industries
Geographical presence	Belgium + world			Netherlands	Belgium	France	Germany		Romania
Time	1987	1989	1993	1994	1995	1996	1997	2000	2003
Service	Import & export chemicals	Organization transport	Logistics						

6.3.8 Case company HHH

The chronology behind the expansion of C°HHH is summarized in following periods.

1992-1999:

In 1992, in the context of harmonization in Europe, the holding to which C°HHH belongs, decided that investments were required to further decrease inventory and distribution costs and improve client service. To achieve these new goals, the logistics activities were severely restructured and C°HHH was created as a new business unit in 1995. The new BU realized the cost reductions and service improvements by reorganizing the warehousing and transport organization in line with the needs of the different customer segments. For instance, the number of international warehouses was diminished from seven to four (Sweden, Italy, France and Germany). The local warehouses were replaced with a new European Distribution Center in Belgium that directly supplies the customers located all over Europe.

To make this logistics design work, C°HHH invested in an extensive computer system that enables an intense communication between the different parties (factories- warehouses- EDC- sales companies- clients). Furthermore, a time-phased transportation network supports the moderations in the client and ensuing warehousing approach. C°HHH outsourced the organization and implementation of all transport. Whereas the organization is taken care of by one global logistic service provider, that service company and several specialized subcontractors do the implementation of the numerous transport assignments.

The holding's logistics reorganization in the European market was completed in 1996 and judged very successful. Consequently, the same concept was used to install a comparable logistics structure in the United States. The approach was slightly different in the United States as C°HHH did not set up the warehouse system on its own but entered in an alliance with three other logistics companies. Furthermore, in the late 1990s, C°HHH installed the concept in Singapore (China) and Puebla (Mexico) with current changes made in Canada.

1999:

With the arrival of a new CEO, C°HHH was faced with another challenge. The new CEO claimed that an analysis of the figures together with client interviews identified an opportunity for C°HHH. Apparently, the clients of the holding to which C°HHH belongs, were amazed by the pace and accuracy of deliveries compared to those of other industrial goods suppliers. As such, the CEO demanded C°HHH to enlarge its scope and approach other industrial goods suppliers to take over their logistic processes.

The switch to clients outside their own group was considered quite difficult. Although the C°HHH rapidly experienced an interest in the market, they felt quite insecure about the way in which external clients had to be approached. An external consultant was hired to help them develop a strategy. Additionally, business development managers were hired to take over client searching in the new market.

2002:

Today, this means that from the EDC in Belgium, C°HHH provides extensive logistics for 6 industrial clients. Furthermore, cross-docking services are delivered to 10 other clients. A similar situation in terms of external cross-docking clients characterizes the international warehouses both in Europe

and America. The expansion to the new target market is considered successful and promising. Nevertheless, an important condition is that the holding's logistic structure is designed to meet the needs of the group. The fact that the infrastructure and services can be open to external parties is interesting but C°HHH's main task is still to manage the logistics of the holding.

In sum, the international activities of C°HHH are not the result of an autonomous international market development strategy. To the contrary, C°HHH has been set up to improve the logistics of the holding of which C°HHH is part. Opening the expertise and facilities to other industrial producers is an example of a market development strategy (Ansoff, 1957) due to targeting a new – already international – segment. Hence, the motives and strategies underlying C°HHH's expansion can be considered very different from the previous seven companies. As such, we decided to regard the developments in this case company as an interesting benchmark to understand general internationalization processes but we do not withhold this case company for the discussion of progression in internationalization as is further explained below. For case company HHH internationalization concerned "International market development by expanding to a new target group". The chronology that captures C°HHH's expansion is depicted in Figure 6-8.

Figure 6-8: The internationalization process of C°HHH

External environment	Fierce competition				
Internal environment	Decision to improve logistics holding (i.e. lower inventorie service, lower costs)		Introduction new concept via rationalization logistics structure in smaller # warehouses	Copy new concept overseas (Growth, Managerial urge, Excess capacity)	New CEO – clients are satisfied with fast deliveries – potential to outsource service to other industrial suppliers
Influential factors on EMC			.Attitude towards internationalization . EM characteristics, especially control	. Lack of host market knowledge . Availability partners	
Operational structure	Start restructuring logistics organization		WOS-G EDC Belgium Sweden France Italy Germany	Partners-0&E WOS-G USA Mexico Singapore	
Influential factors on C/MS			A Country/market set depended on the ope the activities in	rational needs of	
Geographical presence	Europe: e.g. Sweden, France, Italy, Germany,	·			
Time	1992 1993	1994	1995	1996	1999 2002

6.3.9 Case company III

Following chronology highlights the main periods in the establishment of C°III.

2000:

In 2000, top management of a large container–shipping group decides that the service package of the group has to be broadened to face the future challenges in the market of global logistics. In particular, top management is inspired by the increasing trend of logistic services providers that solely focus on organizing the logistic function, i.e. 4 PL players. Apparently, the market in which the container-shipping group works tends to outsource the whole logistic package to a single logistics organizer that subcontracts the partial assignments to specialists such as shipping companies, road carriers, storage firms, and so on. In line with this trend, top management decided to set up a separate business unit that will work under a new name and logo to offer cargo-owners neutral access to a wide variety of traditional international forwarding operations.

2001:

Backed by the financial support and expertise of the mother company, the first offices of the business unit were opened in 2001. More specifically, within one year, wholly owned subsidiaries were successively set up in France, the Netherlands, Belgium and Germany. These countries were considered markets with the highest potential for the integrated service packages. At that time, negotiations were also started to obtain the proper licenses to set up a subsidiary in China.

2002-2003:

During the two following years, the container-shipping group invested more resources to set up more subsidiaries in Europe – i.e. Great Britain, Italy, Spain, Malta and Portugal. Furthermore, the group concluded that the

concept's chance of success is related to the width of the network in which the subsidiaries are embedded. Therefore, the group started to strengthen the network with agents in America, the Middle East, and Europe. In most cases, the agents are representatives of the container-shipping group that can extend their services beyond arranging ocean freight. However, in some markets particular forwarding companies are engaged to represent the new business unit.

In sum, C°III is the result of a diversification (Ansoff, 1957) of the container-shipping group to which it belongs. Contrarily to the internationalization processes of the first seven case companies, C°III belongs to a very international group that decided to expand its service range and targeted markets. The result is the creation of daughter companies that provide the new service packages to a new but already international market segment. The first establishments, of which C°III is the Belgian one, are set up in European markets. In these markets potential buyer readiness is expected to be the highest. Furthermore in these markets voluminous flows of goods leave and arrive creating a large potential for the new subsidiaries to take over the logistics organization of these flows. Due to the special nature of this case company, we decided to include the general development process of the mother holding in the discussion but we exclude the case company from the further analyses on progression in internationalization processes. C°III is the result of internationalization in the sense of diversification to approach changing market demands.

Figure 6-9: The internationalization process mother holding of C°III

External environment	Challenges in global logistics – tr	end to PL				
Motives		. Competitive pressure . Managerial urge . Growth				
Influential factors on EMC		The selection of EM . attitude towards int . nature service . availability firm res . EM characteristics, . availability partners	ternationalization ources & experier , especially costs	nce		ablished)
Operational structure	Establishment BU, new name, new logo to offer neutral access to international forwarding operations	WOS-G	WOS-G	Agents WOS-G		Agents
Influential factors on C/MS		A Country/market selection	A n is a matter of loa	cating industrie	A es and ass	A essing the market potential
Geographical presence		Germany Belgium Netherlands France	Portugal Malta Spain Italy UK		China	Europe Middle East America
Time	2000	2001	200	12		2003
Service	Forwarding					

6.3.10 Study of progression in seven case companies

The internationalization processes of case companies HHH and III are not included in the analysis of periods of progression because of their atypical character in comparison to the ones of the other seven companies. First, the internationalization processes of case companies AAA, BBB, CCC, DDD, EEE, GGG and HHH are examples of the growth strategy 'market development' (Ansoff, 1957; Kotler and Armstrong, 2001) in the sense that it concerns expansions in which the same segments are approached but in new geographic markets. C°HHH differs from these seven organizations to the extent that the growth strategy 'market development' in this company means approaching different segments i.e. producers of industrial equipment – that are active in the same geographic markets than the current clients of C°HHH. C°III differs from the first seven companies because C°III's internationalization process can be characterized by the growth strategy 'diversification' (Ansoff, 1957) since a new service - a 4PL solution – is developed and offered to a new segment – clients with an interest in an integrated logistics solution versus clients that solely want containershipping.

Second, C°HHH and C°III also differ from the seven other cases in the sense that the internationalization process captured in the chronologies does not concern the autonomous decisions of the two case companies. Nevertheless, for the focus on progression, the aim is to capture the interaction between market knowledge and market commitment in the company after perceiving a stimulus and that is eventually shown in a particular manifestation. C°HHH and C°III are specific manifestations of their mother holdings' internationalization. However, we did not manage to get access to the decision-making unit responsible for setting up C°HHH and C°III. Consequently, we decided to remove the two companies from the sample that provides cases on progression in internationalization.

6.4 Nine chronologies and three key issues

Summarizing internationalization in the nine case companies in terms of the three key issues – underlying motives, country/market selection and entry mode choice – reveals some particular findings with respect to internationalization in the industry of logistics. First, with regard to underlying motives, the nine chronologies show that combinations of proactive and reactive motives simultaneously affect developments in the companies' internationalization. As the competitiveness of the sector demands logistics companies to be actively and consciously engaged in developing an internationalization path, especially proactive motives such as 'growth goals', 'building networks' and 'costs' (i.e. engaging foreign drivers and/or obtaining backloads) appear to be stimulating. Moreover, the observations in the case companies do not fully support the assumed gradual switch from a passive client following behavior to a more active market seeking behavior due to increasing experience. Although passive client following is found to be an important motive and behavior in the logistics companies studied, industry competitiveness requires additional proactive motives and simultaneous market seeking behavior.

Second, with regard to <u>country/market selection</u>, the observations specify that the logistics companies studied tend to combine the selection made by network contacts with their own active explorations. In these assessments, the case companies do not use formal studies but rely on particular company-specific routines to search for arguments against or in favor of certain markets. Overall, the most influential factor assessed in selecting a market seems to be 'market potential' (i.e. getting access to backloads and the size of volume of flows).

Third, with regard to <u>entry mode choice</u>, the nine chronologies reveal the use of six different entry modes. The case companies choose from three shared control

modes - i.e. agents, partners, and/or joint ventures; and/or from three full control modes - headquarters, wholly-owned subsidiaries via acquisitions or greenfield investments. Two remarkable findings characterize internationalization processes of the nine logistics companies. The first concerns the importance of the entry mode choice 'headquarters' (HQ) in the case companies studied. In particular, for transport, HQ implies that international transport is arranged from and to the home country by a domestically based team, for distribution, HQ means that the domestic facilities are used for distributing goods for foreign clients usually within the provider's home market, and for logistics, HQ denotes the use of the domestic facilities to provide various logistic services for foreign clients. Hence, HQ is used as a term to refer to a situation that can be generally addressed as inward internationalization (Björkman and Kock, 1997; Fletcher, 2001). The logistic services companies go international because they 'import' foreign clients in the sense that the goods of the foreign clients are the subjects of the service deliveries. Next, in reconstructing the chronologies, a clear preference for full control modes appears which is further explained in the following section.

6.5 Internationalization and the different service types

The entry point for introducing an alternative classification in chapter 3 is the key assumption that the service character affects the internationalization process. In this section, observations with regard to internationalization issues in the nine case companies are related to the service types offered. First, the case companies' service packages are characterized in terms of the four different services types. Next, observed indicators of the classification's underlying criteria are discussed to give an insight in the way in which the case companies' service packages were typified. Finally, we conclude with a discussion of the entry mode choices selected for the four different service types in the nine case companies compared to the particular expectations formulated in chapter 3.

6.5.1 Various service types offered within service packages

The service packages of the nine case companies can be typified with respect to the four service types defined in the alternative service classification introduced in chapter 3. Table 6-4 offers an overview of the different service types per case company distinguishing between the different service activities in the overall service package. Table 6-4 complemented with the chronologies captured in Figures 6-1 – 6-9, provides insight in two developments; namely the routes underlying the diversification of the service packages within each case company next to different routes in the offer of the diversified service package across domestic borders. Both developments are explained below.

Table 6-4: Service types within offered service packages by case companies and entry mode choice

Case C°	Type A Routine services	HQ	WOS	Agents	Partners	λſ	Type B Modular services	HQ	WOS	Agents	Partners JV	Type C Expert services	HQ	Agents	Partners	λſ	Type D Co- developed services	HQ	WOS	Agents	Partners JV
C°AAA	Transport* Distribution Logistics	X X X			X																
C°BBB	Transport*	Χ	Χ				Logistics	Χ													
C°CCC	Transport* Forwarding Distribution	X N	X X		Х	Х															
C°DDD	Distribution* Transport Forwarding Logistics	X X		Х	х х		Forwarding Logistics		X X	Х	Х	<u>Forwarding</u> Logistics	X X	X	Χ		<u>Forwarding</u> Logistics		X	X	Х
C°EEE	Transport* Logistics	X X	X X		Χ	Χ											Logistics	Χ	Χ		
C°FFF	Transport* Distribution	X N			Χ		Logistics	Χ			Х						Logistics	Х			Х
C°GGG	Logistics* Transport	Χ	X X		Х		Logistics	Χ	Χ								Logistics	Х	Χ		
С°ННН	Logistics*		Χ		Χ		Logistics*		Χ		Χ										
C°III	<u>Forwarding*</u>		Χ	Χ	Χ		<u>Forwarding*</u>		Χ	Χ	Χ										

Legend:

The original service activity offered at time of establishment of the case company is marked with an asterisk

Service activities within one cell are ordered according to the sequence in which they were included in the service packages with the most recent activity at the end

X denotes services offered nationally and internationally whereas N denotes services offered nationally

First, with regard to <u>diversification of the service packages</u>, various conclusions can be drawn. Table 6-4 shows that with the exception of case companies AAA and CCC, the nine case companies have several service types within their packages. Type A services contain the most diversified activities as the four distinguished service activities – transport, distribution, forwarding and logistics could be classified in this first category of Routine services. Furthermore, the basic character of transport and distribution activities caused their sole representation in the category of Type A services. Forwarding and logistics to the contrary, comprise a wider range of services leading to a simultaneous classification in all four service categories. As such, forwarding and logistics concern a wide variety of activities going from very basic to fully integrated solutions.

Furthermore, reconstructing the nine internationalization processes learnt that the category of Type A services often contains the originally offered services. Over the years, increasing competitiveness forced most logistic services providers to differentiate their offer. Three routes to differentiation could be distinguished in the nine chronologies.

- First, for case companies AAA and CCC differentiation implied expanding the service package with other Routine services. Consequently, basic distribution, forwarding and/or logistic services are offered next to transport.
- Second, for case company BBB differentiation was achieved by offering additional services activities outside the Type A services range. More specifically, logistic services that can be typified as Type B Modular services were added to the original Type A Routine transport services. This company realized to expand the service package with value-adding logistics services that require more intense interfacing with their customers.
- Third, case companies DDD, EEE, FFF and GGG differentiated by adding both service activities and service types to their service packages. Case companies

EEE, FFF and GGG expanded the Type A services with other routine activities – distribution, forwarding and/or logistics – to provide a more complete service range. However, in these companies differentiation was predominantly realized by means of value-adding logistic services in the other three categories of the service classification. Case company DDD offers the most extensive service package. Their one-stop-shopping concept leads to an all-embracing package that allows C°DDD to design integrated service solutions in which one, some or all four basic service activities are combined into one customized answer.

The service packages of case companies HHH and III differ from the others for two reasons. First, contrary to the other case companies, C°HHH and C°III offered various service types of one main service activity from the very beginning of their set up whereas the other companies started with one Type A service activity. Second, the initial and current service packages of C°HHH and C°III still correspond because the rather recent establishment of these two case companies did not call for adaptations in the offer yet.

Overall, the diversification of the service packages in the nine case companies studied is fully in line with previous research in Belgium and the Netherlands. Van Hoek (2000) notes that the major share of turnover is still realized in traditional transportation services and only a minor share in supplementary services despite the efforts of the studied service providers.

Second, with regard to <u>offering diversified service packages internationally</u>, three routes can be distinguished in which the nine case companies combine an expansion in terms of service packages with an expansion in terms of international presence.

- Four companies (C°AAA, BBB, EEE and FFF) first expanded their service packages within their domestic market. After initial successes in the home market the new services were soon offered in the foreign markets with the exception of C°FFF that remains very domestically focused.
- Three companies (C° CCC, DDD and GGG) expanded their service packages by introducing new service activities and/or types in a foreign market first. In a later phase, the novelty was brought to the home market. Various reasons caused these developments. For instance, C°CCC offered forwarding in France before Belgium because management took the opportunity of incorporating the expertise of a previous partner by setting up a forwarding company in France that hired the experienced lady. C°DDD's original service package was drastically expanded in terms of activities and types by the acquisition of two German companies that led to a presence in numerous foreign markets with various activities that were new for C°DDD. C°GGG's expansion into value-added logistics was initially realized in the Netherlands because the first client was Dutch. Only a year later, the service activity was offered in Belgium as well.
- Two companies (C°HHH and III) never had a strict domestic market. The compounding of their service packages both in terms of service types and foreign geographical scope covered occurred in an international context from the very beginning.

To sum up, for the studied case companies competing means differentiating, both in terms of the offered service packages and regions serviced. This implies that improvements in the service packages are immediately or soon offered in multiple regions irrespective of the market – home or foreign – in which they were developed. Case company FFF is the sole exception as their focus is predominantly aimed at the domestic market.

6.5.2 Knowledge contribution of service provider and customer

The alternative classification introduced in chapter 3 is built on two criteria, the knowledge contribution of the service provider on the one hand and the knowledge contribution of the service customer on the other. Classifying the case companies' services to the four discerned types occurred on the basis of observed indicators of the two criteria. During interviews with representatives within the case companies and client companies, the interviewees were asked to describe the services offered/consumed respectively. On the basis of these general descriptions, the service packages of the nine case companies were typified which resulted in the overview presented in Table 6-4.

With respect to the <u>knowledge contribution of the service providers</u>, the assumed distinction between explicit versus tacit knowledge underlying standardized Type A and B services versus customized Type C and D services respectively became apparent. During the interviews, managers typified the service delivery processes with characteristics that can be easily reduced to the three indicators that Kogut and Zander (1993; 1995)¹ use for distinguishing between explicit and tacit knowledge. First, for service activities classified as Type A – Routine or Type B – Modular services, a high <u>codifiability</u> was noted in terms of relying on standard operating procedures. Managers said that the service delivery processes in their organizations are or could be defined in precise formal procedures that employees have to follow. These procedures are often the result of quality programs. In the smaller case companies, procedures are not formalized in documents. Nevertheless, implicitly, standard procedures exist in these companies and determine the way in which services are delivered. Numerous examples were

¹ Kogut and Zander (1993) link *codifiability* with the use of software, manuals, and extensive documentation in the manufacturing process; *teachabilty* with the education and training of new personnel; and *complexity* with the use of different types of manufacturing processes.

given of standard operating procedures for loading trucks, tying up loads, storing goods within the warehouses, taking care of paperwork by the drivers and warehousing personnel, responding to complaints with regard to missing or damaged loads, and so on.

Secondly, as an indication of high teachability, the managers reported that training new employees is rather easy. However, today the difficulty lies in finding motivated but compliant people. Potential employees seem to be frightened by the demanded flexibility in terms of working hours and tasks. Consequently, problems with new employees are not related to training issues with regard to particular tasks. To the contrary, in case of problems, these are attributed to a mismatch between the expectations the employer has concerning flexibility and dedication versus those of the employee. Furthermore, employers prefer to hire people that can solve problems when needed although the main characteristic that an employer looks for in a new employee is preparedness to follow orders and stick to prescribed procedures. For instance, drivers have to respect legal driving hours, delivery procedures, and safety requirements; similarly warehouse personnel have to follow guidelines with regard to clearing, storing and handling goods.

Third, with respect to <u>complexity</u>, the services are perceived as relatively straightforward. Especially, the activities classified as Type A services do not require complicated interacting service processes in order to provide the client with a solution. For instance, knowing how to group and transport various loads from Antwerp to Berlin or knowing how to stock palletized goods is enough. The activities classified as Type B services show a higher complexity in the sense that coordination is needed to ensure the more extensive knowledge contribution of the customer. For instance, organizing intermodal transport of dangerous goods that need repacking and labeling requires a more extensive dialogue with the

customer to identify and consequently avoid potential problems with handling and moving these goods. However, the interviewed managers stressed that for them, the services are still based on standardized actions.

For service activities that are classified as Type C – Expert services or Type D – Co-developed services the three indicators could be used as well. First and foremost, with regard to complexity, the interviewed managers typified these services as rather complex because they require particular capabilities to combine internal and external information and skills to deliver the service requested by the client. In the case companies, the need for multidisciplinary approaches leads to setting up temporary teams that contain people with varied expertise to design the requested tailor made service. For instance, for building and exploiting a dedicated warehouse, customer and service provider need to cooperate intensely to define and operate the required features of the warehouse. Similarly, for designing the optimal forwarding solution for the transport of exceptional loads, a close collaboration is needed between the two parties. Even subcontractors are involved in the preparation of the final solution.

Secondly, with respect to <u>codifiability</u>, the procedures cannot be fully grasped in standard operating procedures. In most cases, the particular services that are combined in the offered service delivery process are rather standardized but the design of the overall package demands an expertise that cannot be captured in uniform guidelines. Interviewees stressed that the success of these services relies on the experience of specialists. When these experts leave the organization, a lot of knowledge goes with them. For instance, the expertise of an experienced dispatcher that organizes the routes in which the goods are delivered is very difficult to capture in computer software despite numerous attempts. Similarly, the expertise of the business development manager who can combine the specialist partial solutions of his/her company units to design the

one-stop-shopping concept wanted by the customer is impossible to make explicit.

Thirdly, the <u>low teachability</u> of the activities categorized as C and D services follows from the low codifiability. Training new employees is considered time consuming by the interviewees because it takes quite some time before they are thoroughly familiar with the partial solutions and the possible combinations between them. Furthermore, for the design of these services, employees are needed that are creative, innovative, and enterprising. Employees in these functions often have a career that started within one of the specialized departments of the company – or in the organization of a competitor – and gradually grew into a service designing function.

With respect to the knowledge contribution of the service customer, the expected dichotomy between simple versus multifaceted contributions appeared in the discussions with clients of the case companies. For activities classified as Type A – Routine and Type C – Expert services, the clients indicated that their contribution could be summarized as simple in cases where it is restricted to formulating the problem definition accompanied by clear preconditions for the solution. The client's knowledge contribution in the service delivery process is highly explicit and almost exclusively restricted to knowledge-about (i.e. facts and figures). For example, clients that need transport to a certain destination, at a particular moment, for a specific type of cargo have to contribute precise information to define the demanded service. Similarly, clients that need temporary warehousing for a certain volume of toxic packed goods have to contribute detailed information to obtain the service wanted. Furthermore, clients reported that the way in which the service provider organizes and executes the assignments is unimportant as long as the services meet the preset

quality agreements. For these service types, initiatives to improve the service delivery processes almost exclusively come from the service providers.

For activities classified as Type B – Modular and Type D – Co-developed services, the knowledge contribution of the service customer could be described as multifaceted due to three interrelated issues. First, for these services, the service provider needs to get involved in the process of defining the problem and searching for a solution because the customer cannot do it on his own. The customer is usually very familiar with the consequences of problem but needs help in identifying the underlying causes and hence the solution. For instance, outsourcing all outbound logistics can produce important cost reductions and better service levels. Nevertheless, the experience of the service provider is needed to specify the particular features of the logistics needs and ensuing solution. The close cooperation of the customer is needed to define the context in which the service solution has to work.

Secondly, the problem demands the customer to contribute both explicit and tacit knowledge. In particular, explicit knowledge concerns straightforward facts, figures and common procedures about volumes of goods, the nature of the goods, the destinations, planning routines, and so on. Tacit knowledge to the contrary usually concerns particular skills and procedures that the client has to combine with the practices of the service provider. For instance, the client has to allow the service provider to get access to its information systems to gain a thorough insight in the set up of its outbound logistics. By means of close interactions between the two parties, the necessary knowledge is identified, created where necessary and put in the service delivery process.

Thirdly, the clients mentioned that a far-reaching opening-up is required in order to obtain and exchange the knowledge needed for the service delivery. As such,

the interviews revealed that the complexity of the knowledge contribution is also related to the trivial versus strategic nature of the required knowledge. Complex contributions could be characterized by the exchange of strategically important knowledge. For instance, employees of the service company need to be allowed to operate from within the sites of the client company to better organize and supervise the demanded services although this implies that the service employees get access to strategically important knowledge.

6.5.3 Entry mode choices and the four service types

In chapter 3 expectations were formulated with regard to suitable entry mode choices for the alternative four service types (for a detailed discussion we would like to refer to section 3.5.2). Comparing the observations in the nine case companies with the expectations leads to a call for more research because at first sight idiosyncrasies of road haulage seem to distort the match between the expectations and the collected case evidence as discussed below.

Following paragraphs should not be read as the discussion of a formal hypothesis testing study. To the contrary, a closer look at the impact of the required interaction in the four different service types on the entry mode choices in the nine case companies is merely intended as a preliminary empirical validation in order to come to valid expectations for the four service types. As highlighted in the nine chronologies, the interviewed managers mentioned numerous other influential factors with regard to entry mode choice of which abstraction is made here.

A comparison between the entry modes choices per service type by the case companies – summarized in Table 6-4 – and the propositions formulated in chapter 3 leads to following conclusions. First, in chapter 3 it is argued that

Type A – Routine services require entry modes that allow a limited number of standard interactions to occur over a brief period of time favoring permanent shared-control modes or temporary full-control modes depending on the needed infrastructure to deliver the service. Nevertheless, a closer look at the nine case chronologies shows that the case companies that provide many Type A services, use a varied range of full- and shared control entry modes to offer these routine services internationally, namely:

• Temporary full control modes: transport, distribution, and logistics are

organized and executed from and in the

domestic headquarters (HQ)

• Permanent full control modes: transport, distribution, forwarding and

logistics are organized and executed from wholly-owned subsidiaries set up in

foreign markets (WOS – A , G)

• Temporary shared control modes: transport and forwarding are organized

and/or executed by temporarily cooperating with independent partners and agents in foreign markets (partners –

0, E, 0&E; agents)

• Permanent shared control modes: transport, distribution and forwarding are

organized and executed through alliances with independent partners in foreign

markets (JV; partners – 0, E, 0&E)

Second, in chapter 3, it is argued that Type B - Modular services require entry mode choices that allow a continuous but standard means of interacting to occur over a longer period of time favoring permanent entries in the market by means of shared-control modes. A look at the entry mode choices that the six case companies use for their Type B services reveals that full control modes are preferred were possible, although shared control modes in the sense of cooperating with partners or agents are used for the execution – and sometimes organization – of cross-border services as well. Third, in chapter 3, it is assumed that Type C – Expert services require entry mode choices that allow a limited number of highly customized interactions to occur over a longer period of time favoring

entries in the market by temporary or permanent full-control modes depending on the needed infrastructure to provide the services. The case company that offers Type C services internationally prefers to use full-control modes. However, in some markets agents are brought in to organize the offered services. Fourth, in chapter 3, it is argued that Type D – Co-developed services require entry mode choices that allow continuous and customized interactions to occur over a longer period of time favoring permanent entries by full-control modes. Four case companies offer Type D services across their domestic markets. Two companies rely exclusively on full -control modes to organize the logistics activities in the foreign markets whereas the other two combine full-control modes with shared-control modes in less crucial markets.

Hence, the first conclusion seems to be that the preferred entry mode choices do not differ considerably for the four service types. To the contrary, the studied logistic services providers seem to favor entering foreign markets by means of full-control modes where possible, irrespective of the particular service type offered. The observations suggest that other factors such as limited resources, particular opportunities, and/or lower attached priorities to markets primarily drive the choice for shared-control modes. At first sight, this conclusion seems to run counter the key assumption that the type of the services offered affects the internationalization process, of which entry mode choice is a crucial element. Nevertheless, a closer look at the actual interaction between the two parties, and the organization of the international knowledge replication process gives insight in potential causes of mismatch between expectations and case evidence. These insights prevent a rough rejection of the key assumption.

With respect to the different <u>interaction requirements due to the necessary knowledge contribution of the service client</u> for the four service types, case evidence does not run counter the expectations. The chosen entry modes

perfectly accommodate the required interaction modalities. For instance, case evidence fully supports that in case of Type A – Routine services, the interactions between the service companies and clients are limited, standardized and brief. Initial contacts often occur face-to-face – i.e. sales team meets cargo owners to discuss general conditions of working together. For later contacts - e.g. between planning or administration and cargo owner - contemporary technology is widely used. For instance, assignments are frequently communicated and followed by means of facsimile, telephone, e-mail or EDI. Hence, most interactions with the client occur through technology before and after the service delivery process but the client's goods always have to be physically present during the service delivery process. During the process, communication is absent or limited to track and tracing of the goods. The used entry modes accommodate these requirements. In particular, for transport, distribution and logistics the chosen entry modes facilitate smooth communication lines with the customer on the one hand, and well-organized access to the goods that need handling on the other. forwarding, the service is restricted to organizing transport, therefore, the chosen entry mode are focused on efficient on-line communication. observations with regard the interaction dimensions in case of Type B, C and D services are also in line with the expectations put forward in chapter 3.

However, with respect to the expectations concerning the knowledge replication process related to the kind of knowledge contribution of the service provider, case evidence refutes the assumption that service companies such as logistics providers prefer shared-control modes for standardized service processes and full-control modes for customized service processes as discussed above. Hence, the mismatch between the expectations and the empirical evidence seems to be principally related to the knowledge contribution of the service provider since nothing indicates that the customer has specific demands that undermine the expected interaction requirements.

Searching for reasons why the studied case companies consider full-control modes as the default option primarily leads to the competitive environment in which they do business. In the interviews with the managers and the experts, the European logistics sector was repeatedly characterized as very competitive and rather hostile although a trend towards collaboration seems to arise slowly. Nonetheless, as a rule, cooperating is seen as the second best option that is selected in cases where full-control modes are out of reach. Apparently, strong industry recipes² (Spender, 1989; Vandenbempt, 1999; Tsoukas, 1996) affect the preference for full-control modes in the sector. The respondents unanimously agree that sharing knowledge with competitors is not done in cases where it can be avoided, not even when it concerns rather trivial knowledge. currently, the harmonization of the European market and the growing globalization increasingly exert pressure on large and small logistic services providers to become part of highly international networks (Ghazali, 2000; Lemoine and Dagnæs, 2002). For the smaller case companies studied, this implies that forming alliances with comparable partners in terms of size and competencies slowly becomes more important, whereas for larger companies acquisitions remain preferred to develop a global network.

The preference for full-control modes is in line with findings of previous research on internationalization in the field of transport and logistics (Lemoine and Dagnæs, 2002; 2003; Stone, 2001; Hertz, 1993; 1996b). However, clarifications for this preference are scarce; Lemoine and Dagnæs (2003) suggest that the choice for entry modes relates to the strategic importance of markets and the core competences (i.e. service activities) of the service provider in the sense that in crucial markets and for key activities full control modes are preferred. Stone

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² Spender (1989: 61) defines industry recipes as: "a shared pattern of beliefs that the individual can choose to apply to his experience in order to make sense of it, so that his response can be rational."

(2001) refers to corporate culture, i.e. preference for control that affects the entry mode choice, whereas Hertz (1996b) notes that the choice for entry mode depends on the situation and present network structure rather than on the strategies of the company. These arguments correspond to our observations in the studied case companies.

Additionally, we believe that the discrepancies between case evidence and expectations are affected by the studied sample that does not comprise the intended variety. The industry focus appears to be a problem because of the particular selection of an industry in which idiosyncrasies threaten the key assumption. Furthermore, although the four service types are present within the service packages of the nine case companies, Type A - Routine services still dominate the packages offered in the home and foreign markets. Consequently, contrary to our initial expectations, we cannot classify the studied case companies as typical Type A, B, C or D service companies and compare the entry mode preferences between the typical firms. Consequently, the results now indicate that the entry mode choice is a corporate issue instead of an issue related to the particular service type offered. The wide variety of influential factors identified in reconstructing the chronologies supports this conclusion, as the interviewees made no distinction between the various service types offered, but between different service activities offered.

6.6 Concluding remarks

In this first analytical chapter, the nine logistic services companies studied are The internationalization processes of the nine industrial service providers are summarized in chronologies that highlight the development of the companies' foreign activities over the years. Particular attention is paid to the operational structure that enables these activities and the internal and external context in which the companies' internationalization is embedded. Furthermore, the graphical chronologies characterize the nine case companies with respect to the three key issues; i.e. motives, country/market selection, and entry mode choice emphasized in chapter 2. A brief cross-case summarizing discussion indicates particular findings in the industry studied with regard to these core issues. Overall, internationalization in the nine companies can be described as the result of mostly proactive motives in which networks strongly affect country/market selection. Entering foreign markets by means of full-control modes appears to be preferred. Especially, inward internationalization in the sense of importing foreign clients that are serviced from headquarters is a common procedure both in early as in more mature internationalization. Finally, the service packages offered by the nine case companies are described in terms of the four newly introduced service types of chapter 3. The nine case companies predominantly deliver Type A - Routine services although numerous attempts are made to diversify with offering more value-adding services. Nevertheless, intense competition and strong industry recipes tend to lead to a preference for full control modes to offer the services internationally, irrespective of the particular service type.

Chapter 7:

Progression in internationalization processes

Chapter 1:

Introduction to the study

Chapter 2:

Literature review -Services and internationalization

Chapter 3:

Classification of services offered internationally

Chapter 4:

Enriched Uppsala model

Chapter 5: Methodology

Chapter 6:

Nine internationalization processes

Chapter 7:

Progression in internationalization processes

Aims:

- Development of mid-range theory on the basis of fourteen cases of progression in the internationalization of logistics companies
- Comparison logic in mid-range theory with original logic Uppsala model

Chapter 8:

Conclusion of the study

7.1 Introduction

The aim of this second analytical chapter is building a mid-range theory on progression in internationalization processes studied in the context of logistic services companies. Following the adoption of the Enriched Uppsala model in chapter 4, the central assumption is that internationalization – and as such progression in internationalization – is a matter of learning. Irrespective of the actual manifestation, throughout time, progression in the internationalization process of a company is assumed to follow from particular learning that results in, and at the same time is caused by interacting commitment and knowledge changes that are triggered by an environmental stimulus. The term 'progression' with its positive connotation is found appropriate because we will argue that in each case the organization has learnt even though the eventual change in its internationalization can concern an increase, decrease or status quo with respect to the previous situation.

In this chapter, the focus is put on short episodes (Melin, 1992; Hendry and Seidl, 2003) in the reconstructed internationalization processes to scrutinize the underlying learning processes following a particular stimulus. In particular, we start from specific manifestations in the chronologies, and the stimuli that activated the decision-making processes that led to these manifestations. The study then focuses on the steps in between the stimulus and the manifestation to better grasp the interaction between knowledge and commitment. In other words, the central questions answered in this chapter are: how do knowledge and commitment interact and how does learning drive this process? Figure 7-1 is a simplified version of Figure 4-4 and briefly depicts the process caught in the midrange theory developed in this chapter.

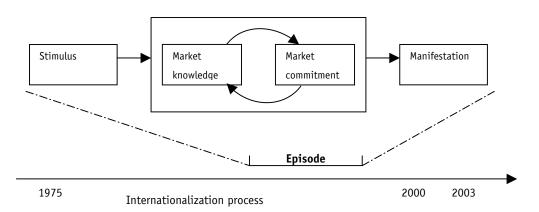


Figure 7-1: From stimulus to manifestation via interplay knowledge-commitment

The further structure of the chapter is as follows; in section 7.2 we account for the selection of periods of progression in the seven case companies that represent the empirical starting-point of the mid-range theory built. In section 7.3 the empirical and descriptive layer of the mid-range theory is introduced, followed by the explanatory layer in section 7.4. In section 7.5 we discuss the contribution of the mid-range theory compared to the original Uppsala model. In section 7.6 we account for not using the service classification in building the mid-range theory. We end with conclusive remarks in section 7.7.

7.2 Progression in seven case companies

The previous chapter elaborately introduces the case companies by reconstructing their internationalization processes and discussing various internationalization issues. In this chapter, the focus is put on progression in the internationalization of seven case companies. In consultation with the manager with the highest rank interviewed, various demonstrations of progression were selected to study. A particular period in the reconstructed chronology was identified that is considered crucial in the organization's history¹. In case companies in which several managers were interviewed, the discussion was deliberately focused on the period indicated by the first interviewee. Nevertheless, without an exception, these interviewees also specified this period as most influential with regard to the company's internationalization.

The selected periods in the chronologies are characterized by diverse manifestations of internationalization such as setting up an administrative office, acquiring a competitor, or giving up the idea to enter a new market. In some case companies, various manifestations could be distinguished within one selected period. Preliminary analyses revealed that these selected periods contained multiple but related <u>episodes of progression</u>. Inspired by Hendry and Seidl (2003) an episode of progression is here defined as a sequence of events structured in terms of a beginning – i.e. the perception of a stimulus, and an ending – i.e. the eventual manifestation in the internationalization process following the stimulus². In line with Melin (1992) an episode is considered a

¹ In the context of using retrospective interviewing as main data source (see chapter 5), discussing an 'important' period has the advantage that the interviewee can be expected to recall more details about that period compared to an 'ordinary period' (e.g. Golden, 1992).

² Kutschker et al. (1997) define an episode as a particular category of internationalization processes in which the level of internationalization is drastically increased. It represents periods that are 'milestones' within the internationalization that last from several months 296

relatively short period in a process with a time span that varies from a few weeks to a few years that contains a sequence of events. We decided to include all these episodes of progression in the analysis leading to fourteen separate cases in seven case companies. After discussing the manifestation(s) within the selected period, the interviewees were asked about the specific stimulus or stimuli that led to the manifestation(s). However, the core of the interviews concerned the occurrences in between each stimulus and manifestation in order to understand progression in internationalization.

We assume that the successive events discussed in the sequence stimulusinterplay-manifestation are causally related. The environmental stimulus that triggers the sequence can both be an event that the company deliberately looked for or that it is coincidentally confronted with. Nevertheless, the ensuing events concern consciously taken decisions in the context of the network in which the company is embedded in order to come to the best-suited response.

Table 7-1 below schematically captures the starting points of the focus on progression by briefly summarizing the selected periods in terms of the manifestations and the stimuli that triggered them. Periods that capture several episodes of progression are already split up in various stimuli and manifestations. For the broad context in which these selected periods are situated we would like to refer to chapter 6 in which the chronologies are summarized. In these overviews, the selected periods are clearly indicated in the discussions with a vertical line next to the paragraphs that describe them.

up to several years. Contrary to Kutschker et al. (1997) we will argue that an episode can represent an evolutionary progression as well. We believe that equating an episode with a revolution is too narrow.

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Table 7-1: Manifestation and stimuli of progression in seven case companies

Case Company- case	TIME SPAN	STIMULI	MANIFESTATIONS
C°AAA-1	2000	C°AAA experiences an increasing flow of goods to Eastern Europe.	Eventually, C°AAA opens an administrative office in Eastern Germany.
C°AAA-2	mid 2000	C°AAA experiences that the cooperation with the head of the office in Eastern Germany does not run smoothly.	Eventually, another person is recruited and put in charge.
C°BBB-1	2001	C°BBB has an employee with Italian roots who is interested in living and working in Italy.	Eventually, an Italian sales office is set up.
C°BBB-2	mid 2001	C°BBB experiences that the employee is not performing as expected.	Eventually, the Italian office is closed, and all market-seeking efforts are again centralized in the Belgian headquarters.
C°CCC-1	1988	New Swedish mother company of international forwarding group decides to close down all its local subsidiaries such as the Belgian one that was a JV between C°CCC and the Swedish group.	Eventually, C°CCC can obtain all the shares of the JV by buying out the Swedish mother company.
C°CCC-2	1989- 1990	C°CCC needs to regain access to the Northern European market to get hold of forwarding and trucking assignments. New partnerships are short-lived due to numerous acquisitions in the sector.	Eventually, C°CCC can convince exworkers of the former Swedish forwarding company to start on their own and to cooperate with C°CCC. These partners set up forwarding companies in Sweden and the UK.
C°CCC-3	1995	C°CCC learns that the potential in the Northern European market is much larger than what the cooperation yields.	Eventually, C°CCC decides to participate financially in the Swedish and British company to give them a broader platform – i.e. more resources to work from.
C°DDD-1	1998	C°DDD learns about the unsuccessful cooperation between two large German companies that are active by means of a JV in logistic services. The parent companies want to end the cooperation and display the JV for sale.	Eventually, C°DDD buys the JV and one of the parent companies.

C°DDD-2	1999- 2000	C°DDD has an international network with a large unused potential due to its exclusive design for German companies that needs to be broadened. Especially, flows to and from the Italian, Dutch and French market need priority.	Eventually, C°DDD acquires a Dutch, Italian and French company.
C°EEE-1	mid 1980s	C°EEE experiences that finding return cargo in France is very difficult. Nevertheless, the French market is a crucial market for their current clients.	Eventually, C°EEE acquires a French transporting company.
C°EEE-2	late 1980s	C°EEE experiences large difficulties with running the acquired French company.	Eventually, C°EEE closes French company by going bankrupt.
C°EEE-3	late 1980s	C°EEE still judges the French market as vital. The number of current clients that are also active in France is becoming larger and larger.	Eventually, C°EEE establishes a new company (greenfield investment) in France.
C°FFF-1	1999- 2000	A consulting report indicates a large demand of American exporters to enter the European market for which they need an EDC such as the one of C°FFF.	Eventually, the focus is kept on the Belgian market because the top was not convinced of the potential of American exporters as a new target group.
C°GGG-1	2002- 2003	Governmental institution contacts C°GGG with the offer to support planning further internationalization. At that time C°GGG is interested in China.	Eventually, C°GGG decides to wait with an entry into China because the market is judged not mature enough yet.

The mid-range theory of progression in internationalization processes is built in three layers: an empirical, descriptive and explanatory layer. In section 7.3, the first two layers are put forward. In particular, the <u>empirical layer</u> summarizes the selected periods in sequences of key incidents that are found to typify episodes of progression. Concurrently, the <u>descriptive layer</u> is introduced that generalizes the cross-case empirical findings in a more abstractive perspective that leans upon the core constructs knowledge and commitment of the original Uppsala

model. In section 7.4, the explanatory layer is discussed that emphasizes learning as the generative mechanism that drives the knowledge and commitment changes throughout an episode of progression. As an introduction Figure 7-2 schematically portrays the mid-range theory developed in this chapter. The abbreviations used in the figure are systematically introduced and discussed in the following sections. The following list already gives a summarizing overview.

ΔMK|IK: change in market knowledge (MK) within frame of current

internationalization knowledge (IK)

 $\Delta C|IK$: change in market commitment (C) within frame of current

internationalization knowledge (IK)

S=|IC-TC|: stress, the discrepancy between intangible (IC) and tangible

commitment (TC)

 $\Delta TC|IK$?: is a change in tangible commitment (TC) at hand in the range of

alternatives captured by current internationalization knowledge (IK)?

ΔIK|S ?: is a change in internationalization knowledge (IK) found necessary

given the perceived stress (S)?

ΔIK & ΔTC ?: can a change in internationalization knowledge (IK) be accompanied

by a change in tangible commitment (TC)?

ΔTC|IK : change in tangible commitment (TC) within frame of current

internationalization knowledge (IK)

ΔIC|IK: change in intangible commitment (IC) within frame of current

internationalization knowledge (IK)

ΔIK & ΔTC: change in internationalization knowledge (IK) together with change in

tangible commitment (TC)

ΔIK & ΔIC : change in internationalization knowledge (IK) together with change in

intangible commitment (IC)

Figure 7-2: Three layers of mid-range theory on progression in internationalization processes

Empirical layer	Descriptive layer	Explanatory layer		
Step 1: Perception and	_	s		
Step 1a : Observation of an environmental stimulus that originates within or outside the environment of the organization.	ΔΜΚ ΙΚ	Exploitative \$5		
Step 1b: The initially perceived stimulus is found challenging in an extra round of information gathering. This implies that additional knowledge results in a change of the organization's commitment towards its internationalization in the market under consideration.	ΔCΙΙΚ	Exploitative S6		
Step 2: Awareı	ness stress			
Step 2: The organization perceives a disturbing discrepancy between what they want to do in the market at issue and what they are actually doing there.	S= IC-TC	Exploitative		
Step 3: Search fo	or a response			
Step 3a: A search for eliminating the perceived stress starts. The organization's first reaction is to consider a change in its investments to rematch its beliefs concerning the market at issue with the current situation in terms of financial and institutional commitment.	ΔΤΟ ΙΚ?	Exploitative		
Step 3b: The search for a solution continues. The lack of a clear solution within the familiar routines and norms calls for their readjustment. The question becomes whether the perceived stress is disturbing enough to change the organization's institutionalized procedures.	ΔΙΚ S?	Exploitative		
Step 3c: The preparedness to change the common procedures leads to the question whether renewing the norms with regard to internationalization is accompanied by the creation of a new solution.	ΔΙΚ & ΔΤC ?	Exploratory		
Step 4: Implementation response				
Step 4: Depending on the outcome of the assessments in the previous steps four responses to eliminate stress are perceived; in two situations action is taken in terms of investments (behavioral responses), whereas in the two other situations, the organization readapts its beliefs (attitudinal responses).	Four responses: 1. \(\Delta \text{TC} \ IK \\ 2. \(\Delta \text{C} \ IK \\ 3. \(\Delta \text{K} \\ \& \(\Delta \text{C} \\ 4. \(\Delta \text{IK} \\ \& \(\Delta \text{LC} \\ \)	Exploitative Exploratory S1 S2 S3 S4		

7.3 Analysis: six scenarios arise in four steps

To build the first two layers of the mid-range theory, the iterative analysis starts from the empirical evidence regarding the selected episodes in the seven internationalization processes. Breaking down the episodes into sequences of key events, and repeatedly comparing the resulting patterns across cases³ reveals that the fourteen episodes of progression can be grasped in four broad but successive steps: 1) stimulus perception and validation, 2) awareness of stress, 3) search for response, and 4) implementation response. Furthermore, linking the key events in each of these steps to the core constructs knowledge and commitment underlying the original Uppsala model, leads to the refinement of the constructs and to an identification of scenarios. More specifically, the analyses of the sequences results in four scenarios in which a reaction is constructed to respond to the triggering stimuli, and as such, in which the stress is eliminated. In the discussion, two additional scenarios are distinguished leading to a total of six ideal-typical scenarios in which progression in internationalization processes is assumed to develop.

For each delineated step, we start with a description of the key events. Next, these events are linked to the core constructs market knowledge and market commitment. A continuous iteration of linking case evidence with contemporary literature with regard to the theoretical constructs leads to a refinement of these constructs. The refined constructs are the building blocks of the scenarios characterizing the descriptive layer of the theory developed here. The discussion of each step ends with a summary of the main empirical observations in a more abstract proposition. The overall section ends with the presentation of a

³ For an elaborate discussion of data analysis underlying this empirical study, we would like to refer to chapter 5 (section 5.3.3).

flowchart in which the origin of the six scenarios in the four steps is schematically depicted.

7.3.1 Step 1: Perception and validation stimulus

The interviewees report particular observations that turned into relevant stimuli triggering the fourteen episodes of progression studied. Very diverse situations rooted in the internal or external environment of the environment lead to observations underlying the triggering stimuli as summarized in Table 7-2.

Table 7-2: Observations are the basis of stimuli in the internationalization process

Case	Observations underlying relevant stimuli	Origin stimulus
1. C°AAA-1	Increasing flows of goods to and from Eastern-	External/ market
	Europe	
2. C°AAA-2	Poor results German office	Internal/ performance
3. C°BBB-1	Employee that wants to work in Italy	Internal/ organization – human resources
4. C°BBB-2	Poor results Italian office	Internal/ performance
5. C°CCC-1	Intention partner to close JV	External/ partner
6. C°CCC-2	Loss access to forwarding partners	External/ market
7. C°CCC-3	Large potential in Northern European market	External/ market
8. C°DDD-1	Internationally active company for sale	External/ market,
		competitors
9. C°DDD-2	Large unused potential	Internal/ structure
10. C°EEE-1	Difficulty in finding return cargo	External/ clients, market
11. C°EEE-2	Poor results French subsidiary	Internal/ performance
12. C°EEE-3	Large potential French market	External/ market
13. C°FFF-1	Large potential of American exporters with EDC needs	External/ market
14. C°GGG-1	Potential help from governmental institution in preparing expansion into China	External/ domestic institution

Due to the selection procedure of the episodes of progression that emphasized influential periods, the selection of observations represents relevant stimuli only. This implies that irrelevant stimuli exist as well in the sense that environmental information is infinite, and organizations do not want to or cannot capture everything, nor do they value everything as interesting (Knight and Liesch, 2002;

Kraatz and Zajac, 2001; Ocasio, 1995; Nonaka 1994). Actually, a relevant stimulus is found to be information that complies with two conditions. First, it concerns particular environmental information that is perceived by the organization – i.e. the observations mentioned by the interviewees. Secondly, a relevant stimulus concerns information that is validated by the organization, in the sense that it is judged challenging. These two crucial conditions can be rephrased in terms of the core concepts experiential market knowledge and market commitment underlying the adopted logic of the Uppsala model. In particular, rephrasing the concepts provides us with a starting point to better grasp the complex interaction between knowledge and commitment.

7.3.1.1 Step1a: Perception of stimulus

On the basis of case evidence, we argue that an observation about a certain foreign market means that an environmental stimulus is perceived. This perception changes the organization's knowledge about that market. Furthermore, the change in market knowledge is found to be affected by the organization's current internationalization knowledge. Using the terms market knowledge and internationalization knowledge in the statement above implies that we adopt the work of Eriksson et al. (1997; 2000a; 2000b; 2001). Before accounting for the statement, two adjustments are made to Eriksson et al.'s (1997) conceptualization of business and institutional knowledge⁴.

First, on the basis of the cases, the constructs business and institutional knowledge are recombined into the general term <u>market knowledge</u> to cover market-specific experiential knowledge. As such, we return to the original

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⁴ Section 4.7.2 offers a concise overview of the definitions used by Eriksson and his colleagues (1997; 2000a; 2000b; 2001) to distinguish between three types of experiential knowledge; i.e. business, institutional and internationalization knowledge.

conception in the Uppsala model that describes market knowledge as "[...] getting to know customers, suppliers, governmental agencies and the various kinds of relations between different actors" (Johanson and Vahlne, 2003: 10) which is well-adopted in general international business literature (e.g. Lord and Ranft, 2000; Eriksson and Chetty, 2003; Hadley and Wilson, 2003). The final column in Table 7-2 indeed shows that reported observations concern information about the foreign market, clients, competitors, governments and/or institutions. Although we want to emphasize the diversity in the topics of the observations, no surplus value is realized in the set-up of this research by distinguishing between institutional and business knowledge like Eriksson and colleagues do. Therefore, the more generic term market knowledge is preferred to simplify the further discussion.

Second, we extend the construct market knowledge beyond the original conceptualization in terms of the origin of the knowledge. Eriksson et al. (1997) relate business and institutional knowledge to experiential market-specific knowledge of parties and situations abroad that are external to the organization - i.e. knowledge about customers, competitors, market conditions, governments and institutions. Nevertheless, on the basis of the cases, we additionally define market knowledge to concern experiential knowledge of own activities in foreign Table 7-2 includes various observations that concern 'internal' markets. knowledge in the sense that it is information about the performance or structure of the organization's establishment in that market. For instance, in its second case, C°AAA observes that the German office performs below the expectations. This observation relates to market-specific information about the situation in Germany with respect to the own operations in that market. Similarly, in its second case, C°DDD observes in an extensive audit, that the acquired German facilities are insufficiently used to capture potential demand in Europe for

logistics in and from Germany. Again this observation has to do with marketspecific information related to own activities across domestic markets.

Perceiving a stimulus is equated with a change in market knowledge (**\Delta MK**) because the observations unanimously show that additional knowledge is gained about a particular foreign market. As such, we concur with Johanson and Vahlne (1977) who note that: "knowledge of opportunities or problems is assumed to initiate decisions." (p.27). Or as Hadley and Wilson (2003: 701) put it: "These two types of knowledge [foreign business knowledge and foreign institutional knowledge] allow a firm to become aware of opportunities and problems in the foreign market." However, we explicitly add that the perception of the additional market knowledge depends on the organization's current internationalization knowledge ($\Delta MK|IK$). As stated above, every organization operates in dynamic environments characterized by an infinite stream of stimuli. However, the fact that for instance, C°BBB observes increasing flows of goods to and from Italy, that C°CCC observes a large potential in the Swedish forwarding market, or that C°EEE observes a necessity to approach the French market differently, lies in their histories. Internationalization is path-dependent in the sense that the company's past matters (Araujo and Rezende, 2003; Eriksson et al., 2000b; Hadjikhani, 1997; Petersen and Pedersen, 1997), a characteristic that we relate to the continuous impact of internationalization knowledge on progression in the process.

Hence, observations today are affected by previous experiences that are captured in the <u>organization's internationalization knowledge</u>, which is defined as the "capability and resources to engage in international operations" (Eriksson et al., 1997: 343). Explicitly adopting internationalization knowledge in the discussion implies restoring the original bifocal meaning of experiential knowledge. Indeed,

Johanson and Vahlne (1977; 2003) distinguish between experiential market knowledge and experiential firm knowledge. Whereas market knowledge concerns specific knowledge about particular foreign markets - i.e. 'know-why' aspect of experiential knowledge; experiential firm knowledge or internationalization knowledge refers to general knowledge that concerns the firm and its total ability to build and manage the international operations - i.e. 'know-how' or procedural element of experiential knowledge. Eriksson and colleagues internationalization knowledge to concepts such as the organization's absorptive capacity (Cohen and Levinthal, 1990; Zahra and George, 2002), theory-in-use (Argyris and Schön, 1978; Sinkula, 2002) and stock of knowledge (Nonaka, 1994). Despite the differences in these concepts which are developed in diverse research fields, the commonality on which Eriksson and colleagues put the emphasis is that organizations rely on a set of assumptions about what the firm can do under different circumstances and what kind of knowledge is required for different purposes. This set of assumptions is codified in various norms and routines that emanate from the organization's overall resources and capabilities (Sinkula, 2002; Feldman, 2000). Endorsing Zahra and George (2002) who enrich the concept absorptive capacity, internationalization knowledge should be seen as a multidimensional construct involving the ability to value, assimilate and apply knowledge related to international activities. Overall, internationalization knowledge is the basis for an enacted environment that defines the facts, perceptions and meanings by which a firm operates (cf. Kuwada, 1998; Eriksson and Chetty, 2003).

The first impact of the organization's <u>internationalization knowledge</u> on an episode of progression is that it <u>acts as a filter</u> (cf. Sinkula, 2002; Orton, 2000) between the countless stimuli and the organization; it affects what is observed and determines which market knowledge is gained. As such, in this step, the internationalization knowledge concerns the organizational routines by which

knowledge is identified and assimilated. Following quotes illustrate that the observations in the cases studied concern particular facts about markets in which the service company has a specific interest due to previous and/or aspired experiences.

C°AAA-1: "Soon after the fall of the Berlin wall we followed our clients into Eastern Europe. Over the years, we experienced the increasing movement of flows of goods because of the delocalization of production to these countries by Western European companies." (Founder – Chief Executive Officer)

C°FFF-1: "We were convinced that we should use the spare capacity in our warehouse, the difficulty was to find clients whose service needs matched with our offer. Furthermore, at that time we were convinced that future grow had to be realized in an international context. We did not believe in staying within the close area of your church tower. ... The report about American exporters that look for European Distribution Centers seemed to be exactly what we needed." (Managing Director Warehousing)

C°GGG-1: "Expansion into China is an option that we are considering for quite a while. Although we are not very keen on 'the help' of governmental institutions, we decided to hear them out because they might be able to get access to people that we need." (Founder - Chief Executive Officer)

The above discussion can be summarized in the first proposition:

P1a: A perceived stimulus is a change in market knowledge that occurs within the context of current internationalization knowledge ($\Delta MK|IK$).

7.3.1.2 Step 1b: Validation stimulus

Case evidence reveals that a change in market knowledge alone is not enough to engage the organization in responding to the perceived stimulus. Apparently, the question becomes whether the perceived stimulus is relevant for the organization's internationalization. In order to answer this question, the organization examines whether the additional market knowledge signals a particular opportunity/problem that challenges the present situation. Again, the

norms and routines captured in the internationalization knowledge are found to affect this assessment. For instance, the case companies greatly call upon formal and informal network contacts such as employees, clients, financial advisors, and/or consultants to obtain extra information that substantiates or protests preliminary impressions. Furthermore, the case companies have their own evaluation procedures to assess a new stimulus as is illustrated in following quotes.

C°CCC: "When we pick up a new opportunity, we get together and we discuss the value of it. We have a clear division of tasks, or maybe you could call it our different perspectives. I look from a commercial perspective, someone else values the financial implications and a third assesses the operational requirements." (Marketing & Sales Manager)

C°DDD-1: "In 1998, one of our people in the market learnt about the difficulties with the JV between X and Y, and the plans of the parent companies to sell the JV. ... We followed the difficult situation of the JV since 1996 via the contacts due to our membership in alliance Z; soon we started to evaluate the possibility of buying the JV. Together with financial experts a first audit was done. For these assignments we always rely on one of the big auditing companies to prepare an assessment. Furthermore, our people in the market contacted their informants and our first impressions were strengthened." (Chief Executive Officer)

C°FFF-1: "We first had to check whether targeting American exporters was a good option for us. The conclusions in the consulting report seemed to fit nicely with our previous conclusion that the spare capacity in our warehouse should be used. However, more information to confirm the potential of the American market was searched...For instance, my boss at that time got in contact with an acquaintance who is harbor representative in Antwerp to get his opinion on the conclusion in the consulting report. Furthermore, we contacted various people that we thought could have more background information on the potential in the American market." (Managing Director Warehousing)

C°GGG-1: "We continuously scan the market for opportunities. We are very open to the idea of going international by setting up extra facilities abroad. Therefore we regularly participate in trade missions. For instance, I visited China several times because of the large potential in the market that is repeatedly emphasized in the specialized press. ... We spend a lot of time going to seminars and meetings in order to get to know people that could help us with an entry in foreign markets. I have this system to scan internet sites on a very regular basis to get to know who is doing what and where and then I approach these people. However, until now, despite the numerous trips and network contacts built, we could not match our resources and modest ambitions with a particular opportunity." (Chief Executive Officer)

The cases studied show that the extra information that is gathered to validate the initial change in market knowledge results in a change of the organization's commitment towards their current internationalization (ΔC|IK). The perceived stimulus activates an evaluation process in which the implications of the change in market knowledge for the organization's internationalization are assessed. Eventually, in the cases studied, this assessment leads to a change in commitment of the organization towards its current internationalization. Table 7-3 summarizes the particular commitment changes that result from the validation of the initial stimulus in the fourteen cases.

Table 7-3: Step 1b: Commitment changes after validation stimulus

Case	Commitment change after additional knowledge	ΔC ΙΚ
1. C°AAA-1	Management of C°AAA starts to wonder how they can further capture the favorable trend in transport needs to and from Eastern Europe. The promising trend in the market is repeatedly confirmed by various network contacts such as clients and governmental advisors. Slowly, conviction grows that action is needed.	ΔIC +
2. C°AAA-2	Management remains convinced that a local office is the right approach to benefit from the changes in the Eastern European market although the practical implementation does not work. An internal problem-analysis reveals that the current head of the office insufficiently utilizes the tangible resources made	ΔIC=0 ΔTC -
3. C°BBB-1	available. Additional information confirms that Italy is a growing market for C°BBB. Daily experience in the market shows that C°BBB's clients have more and more transport needs to Italy. As such, the search for backloads in Italy intensifies. Combining this conclusion with the employee's offer to go and work in Italy	ΔIC +
4. C°BBB-2	causes management of C°BBB to start considering the possibility of setting up a local office. Management of C°BBB starts to doubt the need to keep the Italian office. Previous procedures to obtain Italian backloads seemed to work better compared to the latest results. The beliefs about the necessity of having a local presence in Italy	ΔIC -
5. C°CCC-1	diminish. C°CCC is confronted with a very difficult situation caused by the threat to close the JV. Forwarding is one of their core activities and they want to keep this activity in Belgium because of the	ΔIC=0 potential ΔTC -

	and they want to keep this activity in Belgium because of the close link with its trucking services. Internal estimates of the impact on the trucking situation plead in favor of hanging on to forwarding preferably via an own establishment.	
6. C°CCC-2	Management of C°CCC remains convinced of the importance of the Northern European market for their forwarding and trucking activities despite the end of another collaboration with a partner. However, daily experiences in the market add to the understanding that the short-lived partnerships harm doing business because it prevents building stable client relationships.	ΔIC=0 ΔTC -
7. C°CCC-3	A further investigation in the market confirms that a large potential characterizes the Northern European market although this is not reflected in the assignments coming through the collaboration with the Swedish and British forwarding partners set up in 1990. Nevertheless, management of C°CCC wants to continue cooperating with these partners but expects them to put in more effort. Beliefs grow that attaining a larger part of the Northern European is possible given the C°CCC's positive reputation in the market.	ΔΙС +
8. C°DDD-1	Since the establishment of C°DDD, management is convinced that being part of a large international network is key for future survival. Two possibilities are considered interesting for C°DDD; or they should become part of an existing international network or they should build one themselves. In any case, management believes that every opportunity to internationalize should be carefully assessed. The news of the JV being for sale triggers another round of investigating the feasibility of becoming part/setting up a large international network. This time, additional information about the resources and capabilities of the JV strengthens the belief that C°DDD should invest in becoming a strong international player. Management of C°DDD starts to believe that this time their ambitions can be materialized.	ΔIC +
9. C°DDD-2	A thorough comparison between C°DDD's capacity, the potential of the Italian, Dutch and French markets, and the actual position of C°DDD in these markets convinces management of the large unused potential in these markets. Beliefs grow that more efforts are needed to benefit from their international network.	ΔIC +
10. C°EEE-1	Management of C°EEE daily experiences that the French market is a crucial market for their current clients, and for cost reasons finding return cargo is essential to continue these relationships. Consequently, management of C°EEE becomes more and more convinced that getting a better access to the French market is indispensable.	ΔIC +
11. C°EEE-2	Management of C°EEE gets discouraged by the situation in France. Additional information from clients repeatedly confirms	ΔIC -

	that the activities in the French market are untenable. Bad relations with the labor unions cost too much financial resources, time and energy. The appropriateness of the establishment starts to be questioned.	
12. C°EEE-3	Despite previous problems, C°EEE remains convinced that a local presence is the best way to approach the French market. Especially, additional knowledge obtained from (potential) clients leads to increasing beliefs to get largely involved in the France.	ΔIC +
13. C°FFF-1	Various sources such as governmental and business institutions confirm the consulting report that indicated a large potential of American clients for an EDC like that of C°FFF. Management of C°FFF starts to believe in the feasibility of attracting American exporters to use C°FFF's logistics experience.	ΔIC +
14. C°GGG-1	The additional information that management of C°GGG obtains through the cooperation with the governmental institution on the one hand, and via the students in China on the other, leads to an increasing belief that the service concept of C°GGG can be marketed successfully in China.	ΔIC +

Legend: The last column summarizes the commitment changes; ΔIC refers to a change in intangible commitment whereas ΔTC refers to a change in tangible commitment; + and – denote an increase and decrease in commitment respectively.

In the original Uppsala model, market commitment mainly referred to a tangible form of commitment – the amount of resources committed and the degree of commitment (Johanson and Vahlne, 1977; 1990). Johanson and Vahlne (2003) argue that particularly the degree of commitment is central in the model because the concept stresses that investments cannot be easily withdrawn from a market, they create a certain engagement that cannot be simply changed. Hadjikhani (1997) argues that this conceptualization of commitment does not go far enough because commitment not only has a tangible expression but also an intangible one⁵. Hadjikhani's (1997) bilateral conceptualization of commitment concurs with a contemporary understanding of behavioral and attitudinal commitment

⁵ Section 4.7.2 contains the definitions of tangible and intangible commitment as put forward by Hadjikhani (1997).

(e.g. Gundlach et al., 1995; Iverson and Buttigieg, 1999; Lamb and Liesch, 2002; Skarmeas et al., 2002; Pauwels et al., 2003). We endorse this bilateral conceptualization of commitment because it offers a good starting point to interpret case evidence.

The majority of the cases in Table 7-3 show that by assimilating extra knowledge that confirms the perceived stimulus, the organization gradually changes its attitude towards internationalization ($\Delta IC>0$). Within the company, a shared understanding⁶ (Nonaka, 1994; Crossan et al. 1999; Feldman and Rafaeli, 2002) arises that the initial stimulus is challenging within the context of current internationalization knowledge and that further action might be appropriate. In other words, in these cases, the organization's intangible commitment² (Hadjikhani, 1997) changes due to the additional market knowledge. This means that the organization adjusts its beliefs, its attitude towards its current internationalization as it starts to see the consequences of the opportunity/problem initially signaled in the perceived stimulus. Case evidence shows that intangible commitment can increase or decrease with regard to the market at issue (see $\triangle IC$ + versus $\triangle IC$ – in Table 7-3). This reaction corresponds to the general logic in evolutionary models of strategic change (Barnett and Burgelman, 1996; Huff et al., 1992) that depict change as an iterative process of belief, action and learning. Similarly, an episode of progression is found to start

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⁶ We discuss shared understanding at the organizational level, nevertheless, case evidence indicates that it is a (small) group of managers involved in the internationalization of the service company that needs to come to a joint point of view. A discussion at the organizational level is valid since it is this group that ultimately has to give power to changes in the internationalization. Moreover, this group, which is often dominated by the founder/CEO, actively or reactively strives for support and involvement in the rest of the organization.

Again, it is the attitude of the group in charge that changes. Conflicting views may exist in the organization but the empowered group must be convinced in order to achieve a change in the beliefs concerning the organization's internationalization.

with the assimilation of extra knowledge that affects the beliefs in the organization with respect to its internationalization.

During the analysis three cases seemed to be a-typical. More particularly, in C°AAA-2, C°CCC-1, and C°CCC-2, the validated stimulus does not affect the organization's intangible commitment ($\Delta IC=0$). In these cases, the initial change in market knowledge is related to a (probable) change in tangible commitment - the institutional, financial form of commitment (Hadjikhani, 1997) towards internationalization (ΔTC>0). Here, case evidence reveals that management remained convinced that their current attitude internationalization is correct but an unintended cause within or outside their organization pressures their tangible commitment with regard to the market under consideration. In these cases, the search for extra market knowledge in the validation process of the stimulus was not aimed at confirming or rejecting the potential challenge related to the perceived stimulus. To the contrary, the extra information was aimed at assessing the impact of a change in the tangible commitment. In all three cases, management concluded to stick to their beliefs despite the (probable) change in tangible commitment. The outcome of these three cases is different from the others but for predictable reasons – i.e. the stimulus. As such, these cases offer the grounds for a theoretical replication of the previous findings.

Similar to the perception of the stimulus, the validation of the stimulus is affected by current internationalization knowledge ($\Delta C|IK$). In particular, the additional market knowledge for the validation process is identified and valued within the framework of current internationalization norms and routines. In this evaluation, organizational attention is likely to be allocated to finding information that is easily interpreted within the current frame of reference in day-to-day situations. Organizations tend to look for information that supports

the current frame of reference because they want to avoid the cognitive dissonance that occurs when they receive information that contests their basic assumptions (Kuwada, 1998). On top of a filtering role for the additional knowledge gathering, the impact of internationalization knowledge in this step of an episode in progression is that it acts as a <u>regulator of resource commitments</u> (cf. Yli-Renko et al., 2002; Hadjikhani, 1997). Internationalization knowledge serves as a benchmark to determine whether a change in commitment is appropriate. The second condition – validation of the stimulus – can be summarized in the following proposition.

P1b: A validated stimulus is a confirmed change in market knowledge that leads to a change in intangible or tangible commitment that occurs within the context of current internationalization knowledge (ΔC|IK).

7.3.2 Step 2: Towards awareness of stress

In analyzing the sequences of key incidents across the cases, awareness of stress delineated as a second step in an episode of progression in internationalization. In line with contemporary literature, stress is defined as the discrepancy between the perceived level of aspiration and the perceived level of achievement (Ocasio, 1995; Huff et al., 1992). Stress is added to the core constructs market knowledge, internationalization knowledge, intangible commitment and tangible commitment as a summarizing concept. Stress expresses dissatisfaction with current behavior because of changes in commitment ensuing from the perceived and validated change in market knowledge. Actually, we define stress in this context as the difference between intangible and tangible commitment. Table 7-4 follows on Table 7-3 and reviews the origin of stress in the fourteen cases studied. In each case, a clear discrepancy is shown between the aspired and actual activities in the market under consideration.

Table 7-4: Step 2: Awareness stress after knowledge and commitment changes

Case	Step 2: Awareness stress	Stress
1. C°AAA-1	Stress arises because management acknowledges the perceived opportunities in Eastern Europe and starts to believe that more resources should be invested.	S= IC-TC
2. C°AAA-2	Stress arises because the efforts invested by the head of the office in Eastern Germany do not correspond to the preset objectives.	S= IC-TC
3. C°BBB-1	Stress arises because management's belief grows in a local office in Italy but no concrete actions are taken yet.	S= IC-TC
4. C°BBB-2	Stress appears because of lagging results in the Italian market despite the large efforts.	S= IC-TC
5. C°CCC-1	Stress arises because losing the JV would imply that the forwarding activities could not be continued despite their high-perceived relevance.	S= IC-TC
6. C°CCC-2	Stress appears because management wants to continue offering forwarding and trucking activities in Northern Europe but again access to the market is lost.	S= IC-TC
7. C°CCC-3	Stress arises because management experiences that C°CCC gets insufficiently hold of assignments in Northern Europe.	S= IC-TC
8. C°DDD-1	Stress appears because management again concludes that C°DDD's international ambitions are correct despite the lack of concrete actions.	S= IC-TC
9. C°DDD-2	Stress arises because management identifies numerous unused possibilities with regard to foreign market demand.	S= IC-TC
10. C°EEE-1	Stress arises because management experiences that the French market requires a different approach than what C°EEE currently realizes.	S= IC-TC
11. C°EEE-2	Stress appears because the current presence in France is no longer judged beneficial for C°EEE.	S= IC-TC
12. C°EEE-3	Stress arises because C°EEE's management is convinced of the importance of the French market and the need to regain presence in that market.	S= IC-TC
13. C°FFF-1	Stress slowly arises because management acknowledges the potential in the American market and no presence is realized yet.	S= IC-TC
14. C°GGG-1	Stress slowly appears because management of C°GGG starts to believe in an entry into China but no particular actions are planned yet.	S= IC-TC

Legend: Stress (S) is the difference between the tangible (TC) and intangible commitment (\overline{IC}) attributed towards the market at issue.

Endorsing Hadjikhani (1997), tangible and intangible commitment are understood as intensely linked concepts in the sense that intangible commitment backs tangible commitment. Stress is assumed to arise when the unity between these two forms of commitment is disturbed because, in line with evolutionary

models of strategic change (Huff et al., 1992; Barnett and Burgelman, 1996), organizational balance is considered dependent on a fit between what the organization wants (intangible commitment) with what the organization does (tangible commitment). Stress drives the organization to re-align its strategy with changing environmental circumstances (Floyd and Lane, 2000; Gersick, 1991, Staw et al., 1981). Sastry (1997) notes that although traditional explanations of organizational change emphasize performance pressures as the fundamental force for change, conceptions of fit may be important as well. As such, the choice for stress to be the motor of the change process that aims at restoring the aspiration/performance equilibrium (Levinthal and March, 1993) seems appropriate.

The organization's awareness of stress is assumed to be the crucial <u>turning point</u> in an episode of progression. Stress is considered and made explicit as the key motor of change (cf. Van de Ven and Poole, 1995; Pettigrew, 1997). Without stress, an episode of progression ends here. With stress further learning is provoked (Fiol and Lyles, 1985) and learning is assumed to be the generative mechanism that typifies the particular progression in internationalization (see section 7.4 below). Therefore, the delineation of this step differs from the previous and following steps in which <u>decisions</u> are taken, whereas this second step portrays the essential <u>condition</u> to move beyond the perception and validation of a stimulus. This assumption can be captured in the following proposition.

P2: Stress arises because the organization's intangible commitment differs from its tangible commitment, which is the necessary condition to incite the organization to start searching for a way to eliminate the perceived tension (S=|IC-TC|).

7.3.3 Step 3: Search for a response

Episodes of progression really start when stress is perceived. The cases studied show that change in commitment triggered by the stimulus challenges the organization's internationalization, and management wants to eliminate the perceived stress as quickly as possible. Literature on behavioral decision-making (Cyert and March, 1963) and evolutionary models of change (Huff et al., 1992; Tushman and Romanelli, 1994) offers support to understand the empirical findings. Central in this literature is the idea that organizations strive for environmental alignment; i.e. poor performance prompts a search to identify a change (Sastry, 1999; Floyd and Lane, 2000; Winter, 2000). The common state of organizational activity, based on prevailing environmental conditions and previous managerial decision-making, is one of stability or equilibrium (Romanelli and Tushman, 1994). Overall, organizations can be characterized by a resistance to major changes because managers want to maintain a complex network of commitments and relations (Gersick, 1991; Romanelli and Tushman, 1994; Tushman et al., 1986). Instability is allowed to occur only temporarily because solutions are sought to return to a renewed equilibrium as quickly as possible (Ocasio, 1995).

Analysis of the fourteen cases demonstrates that the companies' search for a response can be further structured in three sub-steps. A positive answer to the question posed in each sub-step (see section 7.3.3.1 – section 7.3.3.3) leads to a response to eliminate stress, whereas a negative answer leads to the next sub-step in the search. In the following sections, the questions typical of the sub-steps are discussed, whereas the exact responses are looked at in the fourth step (see section 7.4 below).

7.3.3.1 Step 3a: Is a change in tangible commitment possible?

Stress calls for reaction and the cases show that the organizations' <u>first response</u> is to consider the possibility of engaging in more or less investments in the market at issue, as is illustrated in following quotes.

C°AAA-1: "We soon considered the possibility of setting up an office in Eastern Europe. Our sales people did no longer see new alternatives to improve their efforts in that market working from our home base. ... Besides, we learnt more about the advantageous labor costs in Eastern Germany, which made the option of setting up local activities more and more interesting." (Founder – Chief Executive Officer)

C°CCC-1: "We could not agree with losing our forwarding activities. We negotiated fiercely with the Swedish mother company to return on their decision. ... They did not want to listen so we had to try something else. ... We had good experiences with our French forwarding subsidiary so we started to believe in becoming sole owner of the JV." (Founder-Chief Executive Officer)

C°EEE-3: "Our first presence in France was a problem from the very beginning. We spent all our money on the acquisition of an old infrastructure. We could not buy new trucks, so the drivers were very negative and we did not manage to turn the situation around despite our experience at home. ... After a year we got the idea to quit. We had the feeling that we tried everything but that it did not work anyway." (Director Purchasing)

As such, the organizations' first reaction is to assess the possibility of changing the tangible commitment in the challenged market (ATC?). Again, similar to the evaluation of the stimulus, the initial search for a response occurs in the frame of current internationalization knowledge (ATC|IK?). The case companies look for analogies with former situations and think of solutions that are in line with their current capability and resources to engage in international activities, i.e. their internationalization knowledge. Or as Johanson and Vahlne (1977: 27) generally put it: "... knowledge about relevant parts of the market environment and about the performance of various activities" is used for the evaluation of alternatives.

Table 7-5 summarizes the nine cases that found such a response. In these cases, management is of the opinion that the solution to the stimulus fits with the organization's other international activities. Although the search for a solution is driven by a search for analogies with previous situations, the particular response to the stimulus might be new for the organization, e.g. C°AAA and C°BBB never opened a foreign office before. Nevertheless, the case companies do not experience the chosen response as frame breaking; interviewees reported that in the organization, the decision was considered a logical continuance of previous efforts. Table 7-5 highlights the search for a response by reformulating the key question and the preliminary answer to it. Although the table below might suggest that the case companies identified the ultimate solution right away, various other familiar alternatives were often assessed as well but found unfit due to strategic, economical and/or political reasons.

Table 7-5: Possibility of change in tangible commitment?

Case	Key question following stimulus and formulated potential answer	ΔΤΟ ΙΚ ?
C°AAA-1	How can we capture more rides in Eastern Europe ?	Yes
	Maybe we can set up an administrative office there.	
C°AAA-2	How can we improve the performances of the office in Eastern	Yes
	Germany ? Maybe we can select another head because we cannot	
	seem to motivate the current one.	
C°BBB-1	How can we accommodate our employee's willingness to work in Italy	Yes
	? Maybe we can set up a sales office in Italy.	
C°BBB-2	How can we improve the performances of the Italian office? Maybe	Yes
	we should close the office and return to our familiar market-seeking	
50555 4	procedures organized from the home base.	V
C°CCC-1	How can we keep our forwarding activities if the Swedish company	Yes
	closes the JV? Maybe we can buy their share in the JV and become sole owner.	
C°CCC-3	Sold Chine.	Yes
t ttt-3	How can we capture more of the market for forwarding and trucking in	165
C°DDD-2	Northern Europe? Maybe we should better motivate our partners. How can we improve the use of the acquired infrastructure? Maybe	Yes
C DDD-2	we can reorganize the establishments and strengthen them with	163
	taking over additional local players.	
C°EEE-2	How can we improve the poor performances of the French subsidiary?	Yes
C LLL L	Maybe we should quit our efforts in that market.	103
C°EEE-3	How can we regain a strong access to the French market? Maybe we	Yes
5 222 5	should set up a new establishment by means of a greenfield	. 55
	investment.	

The literature offers wide support for the finding that organizations initially start to look for a solution within its extant routines – i.e. within its internationalization knowledge. Under the conditions of limited rationality, uncertainty, and ambiguity underlying the adopted Uppsala model, research shows that decision makers are likely to bring their previously formed beliefs and routines into new situations (Das and Teng, 1999; Feldman, 2000; Hendry and Seidl, 2003; Tsoukas, 1996; Staw et al., 1981). Stress induces a problem-solving search that narrows attention to more conventional solutions that favor the interests and identities of participants in the organizational decision-making process (Ocasio, 1995; Staw et al., 1981). In particular, social consensus about cause and effect relationships develops into managerial representations of reality that largely affect the selection of a solution (Sinkula, 2002; Orton, 2000). Kuwada (1998) notes that most organizational problems are resolved through extant routines. It is rare for the basic norms and routines to be questioned consciously (Louis and Sutton, 1991).

This first sub-step in searching a response is explicitly explained in the original Uppsala model. Risk and uncertainty generally related to doing business internationally, next to scarce organizational resources promote the reliance on familiar routines to respond to problems/opportunities (Petersen and Pedersen, 1997; Hohenthal et al., 2003; Johanson and Vahlne, 2003). Companies are assumed to search for a match between the firm's existing resources and those needed to act abroad (Madhok, 1996; Eriksson et al., 2000a) and hence the first reaction seems to be to look for a solution close to current activities.

In accordance to the above, the following proposition can be formulated:

P3a: The organization's first reaction to perceived stress is to consider a change in tangible commitment to regain match with intangible commitment within the market at issue (ΔTC|IK?).

7.3.3.2 Step 3b: Is it worth to renew the internationalization knowledge?

However, interviewees reported that they did not manage to find a straightforward solution in all cases. Apparently, in some situations, current routines do not seem to contain a ready-made answer in terms of an investment change to tackle the perceived challenge. Previous situations do not give the organization sufficient analogies to go on. In these cases, management reconsidered the importance of the perceived challenge because they realized that a more drastic change is needed in their internationalization approach to respond to the perceived opportunity/problem. Nevertheless, a drastic change brings extra risks and the question is whether the challenge is worth these risks? Following quotes illustrate the reassessment of the perceived challenge.

C°CCC-2: "We started to realize that engaging another partner was not a good solution anymore. Acquisitions constantly disrupted extant relationships and we were really fed up with it. ... Then the question became how to change the situation. ... Nevertheless, one thing was clear, we had to find another way to secure our contacts in the Northern European market, our trucking business largely relied on it." (Marketing and Sales Manager)

C°FFF-1: "Although we felt that the American market had a large potential for us, we did not manage to identify clients. ... We experienced that our extant contacts were insufficient but we had difficulty in finding better network contacts or a different way of identifying potential clients. ... It was clear that another approach was needed; and at that time the CEO hesitantly agreed with the involvement of external parties to help us redirect our efforts. "(Financial Director)

C°EEE-1: "We repeatedly experienced that finding customers in France for backloads to the Netherlands was very difficult. Apparently, it did not help that we are Dutch in the French market. Nevertheless, we really needed those backloads to keep our costs and prices at competitive levels in order to continue the relations with our clients in the Netherlands. ... Eventually, contacts in the market gave us the idea of buying a French company. Despite the numerous advantages that we saw, this option made us ill at ease. ... At that time, our company only had establishments in the Netherlands apart from the Belgian subsidiary but that was completely dedicated to one large customer." (Director Purchasing)

To rephrase the considerations in this step in terms of commitment and knowledge, the organization's reaction is to assess whether the experienced stress is high enough to challenge its current norms and routines of

internationalization, i.e. its internationalization knowledge (ΔΙΚ|S?). This is again a critical point because a drastic change is required to create new norms and routines and as such, this will increase risks and instability tremendously. Hence, the stress must outweigh inertia that emerges from the institutionalized internationalization knowledge. Table 7-6 shows that in four cases, management was convinced of the importance of the challenge and acknowledged the inadequacy of the internationalization knowledge to respond to the perceived opportunity/problem, whereas in one case top management did not allow questioning the organization's routines and norms.

Table 7-6: Preparedness to change internationalization knowledge

Case	Preparedness to change internationalization knowledge?	ΔΙΚ S ?
C°CCC-2	Management is convinced that a solution has to be found that offers a more permanent access to a network of forwarding partners. They acknowledge that the current procedures do not work anymore and they try to open up to new ideas.	Yes
C°DDD-1	Top management is convinced that time has come to act on their ambitions. However, they recognize that their current international experience is very limited but agree that large risks can be taken.	Yes
C°EEE-1	Management is convinced that action in the French market is needed to safeguard their relationship with current clients in the home market. They acknowledge that the current procedures do not include a proper answer and that an alternative has to be found.	Yes
C°FFF-1	Management is convinced that their own procedures are insufficient for the identification of clients in the USA. Although the CEO allows the mediation of external parties for a while, eventually, he blocks further initiatives within the company. Management working on the expansion project is demanded to concentrate on extra clients within Belgium because top management is of the opinion that enough growth	No
C°GGG-1	opportunities reside within the familiar market. Management is convinced that China is a very promising market but that their own procedures are seemingly failing to get access to potential clients. They decide to open up to external experts.	Yes

Literature supports the findings as it is widely assumed that organizations experience adapting current norms and routines as very risky (Sinkula, 1994; 2002; Feldman, 2000; Winter, 2000; Zahra and George, 2002). As observed in the cases studied, environmental support in the sense of additional confirming knowledge, is critical to allow the questioning of current norms and routines (Hendry and Seidl, 2003; Kuwada, 1998). Or as Floyd and Lane (2000:156) put it: "Before accepting change, managers must come to appreciate the stresses in the environment of an organization that create the need for change". Eventually, managers have to come to a shared interpretation of the key issues and ensuing action agendas (Nonaka, 1994; Huff et al., 1992).

In the original Uppsala model, only the development of market-specific knowledge is explicitly discussed whereas no indication is given of changes in general firm knowledge. Eriksson et al. (2001), to the contrary, focus on the development of firm knowledge. However, they merely suggest that restructuring the internationalization knowledge takes place when accumulated experiences indicate that the extant norms and routines do not longer correspond to reality. Our findings specify that before restructuring the internationalization knowledge, first the organization questions the necessity of such a drastic change by revaluating the perceived stress.

In accordance to the above, the following proposition can be formulated:

P3b: The organization's second reaction to perceived stress is to assess the preparedness for a change in the internationalization knowledge given the perceived stress (ΔΙΚ|S?).

7.3.3.3 Step 3c: Is a change in tangible commitment possible now?

In four cases studied, i.e. C°CCC-2, C°DDD-1, C°EEE-1 and C°GGG-1 the perceived challenge and ensuing stress was judged important enough to allow drastic changes in the norms and routines with respect to internationalization. However, in the analysis we found that despite a company's (attempts in) changing their internationalization knowledge, this did not necessarily result in concrete action. To the contrary, in these cases, a next question in the search for a solution appeared to be whether the company is ready to act yet. In the cases various initiatives were taken to gain new insights that could lead to the creation of a suitable response. Simultaneously, these initiatives provided the organizations with arguments in favor of or against taking action. As such, in three cases, extra insights not only led to the renewal of internationalization knowledge but also convinced the organizations to create and implement a solution, which involved changing particular investments in the market at issue. In the fourth case, however, the additional insights convinced the company that action had to be postponed because management was of the opinion that the current resources and capabilities are still insufficient. Table 7-7 summarizes the particular situation in the four cases that were sure of the necessity of adapting their internationalization knowledge.

Table 7-7: Readiness for action

Case	Readiness for action ?	ΔTC ?
C°CCC-2	Talking to former employees of the forwarding company that was acquired by a large Swedish company in 1988, resulted in the idea of setting up independent partnerships in the UK and Sweden with which C°CCC could work.	Yes
C°DDD-1	The thorough assessment of the JV for sale by independent experts and favorable negotiations with the parent company further convinced C°DDD to opt for a take-over of the JV.	Yes
C°EEE-1	Further information gathering in the French market by means of contacting various network partners such as clients and colleagues gave C°EEE the idea of buying a French company.	Yes
C°GGG-1	Thorough market research in China revealed that the market offers a tremendous potential and that the service of C°GGG is assumed to be a perfect match with the current needs. However, legal restrictions convince C°GGG's management to postpone entering the market yet.	No

Support for this finding particularly lies in the organizational learning literature as is discussed in detail in section 7.4 below. Briefly, in line with contemporary definitions of change, restructuring knowledge can result in changes in behavior and/or changes in cognition (Fiol and Lyles, 1985; Huber, 1991; Williams, 2001; Sinkula, 2002; Crossan and Berdrow, 2003). Restructuring internationalization knowledge can be restricted to a change in cognition – i.e. the company adjusts overall rules and norms instead of specific activities. However, restructuring internationalization knowledge can also be accompanied by a change in behavior as well - i.e. the company adjusts overall rules and norms and concurrently creates a new activity. Or as Feldman (2000) puts it: "... change is more than choosing from a repertoire of responses, ... the repertoire itself, and the rules that govern choice within a repertoire can also change." The particular choice for changing the rules and/or repertoire depends on the economic, strategic and/or political assessment (Floyd and Lane, 2000; Isabella, 1990; Coopey and Burgoyne, 2000). Overall, Huber (1991) reports that the organization will search for additional alternatives as long as the present alternatives do not satisfy the goals set. Eventually, the alternative that is chosen is believed to have a satisfactory probability of success.

In the Uppsala model, drastic changes in firm knowledge are not discussed. The model primarily focuses on an incremental development of internationalization processes on the basis of the gradual accumulation of market knowledge (Forsgren, 2002). Eriksson et al. (2001) to the contrary, discuss the development of foreign business knowledge, foreign institutional knowledge, and internationalization knowledge and conclude that whereas business and institutional knowledge accumulate in a gradual and continuous way, the development of internationalization knowledge is discontinuous.

The discussion above can be summarized in the following proposition:

P3c: The organization's third reaction to perceived stress is to assess whether the renewal of the internationalization knowledge should immediately imply the creation of a new solution (ΔTC ?).

7.3.4 Step 4: Implementation response – 4 different scenarios

In passing through the sub-steps of step 3, the organization finds a response to eliminate the stress perceived in step 2 after the perception and validation of a stimulus in step 1. Actually, case evidence shows four different scenarios that differ with respect to the nature of the response that is either a change in tangible commitment or a change in intangible commitment on the one hand, and a refinement versus a restructuring of the extant norms and routines in the extant internationalization knowledge on the other. More specifically, Scenario 1 closes when the organization finds an alternative within its current range of alternatives to eliminate the stress ($\Delta TC|IK$). Scenario 2 concludes when the organization readapts its beliefs because no ready-made answer is found to relieve the stress and the creation of a new one is judged too drastic ($\Delta IC|IK$).

Scenario 3 ends when the organization allows a change in its norms and routines and creates a new alternative to respond to the confirmed stress (Δ IK & Δ TC). Finally, Scenario 4 rounds off when the organization allows a change in its norms but postpones the implementation of a particular new routine due to (temporarily) high risks. Figure 7-3 schematically summarizes the responses in the four scenarios that arise to react to a validated stimulus. Moreover, the fourteen cases (see Table 7-1) are classified within the figure according to the scenario that typifies each of the fourteen episodes of progression.

Figure 7-3: Overview four different scenarios in fourteen cases

	ΔΤ	C ?
ΔΙΚ?	YES	NO
	Action	No action
	Change in tangible commitment	Change in intangible commitment
NO	<u>Scenario 1</u> : Stress is relieved by a	Scenario 2: Stress is insufficient to
Extant norms	change in tangible commitment that	reorganize current internationalization
and routines	is in line with current	knowledge, intangible commitment is
judged	internationalization knowledge	adapted to relieve stress ($\Delta IC IK$).
appropriate	(ΔTC IK).	
	C°AAA-1, C°AAA-2, C°BBB-1, C°BBB-2, C°CCC-1, C°CCC-3, C°DDD-2, C°EEE-2, C°EEE-3	C°FFF-1
YES Extant norms and routines judged inadequate and consequently restructured	Scenario 3: Stress is sufficient to reorganize current internationalization knowledge; a new behavioral response, - i.e. a change in tangible commitment, is created in restructuring internationalization knowledge in order to relieve stress (ΔΙΚ & ΔΤC).	Scenario 4: Stress is sufficient to reorganize current internationalization knowledge, however, new insights reveal that it is better to postpone a behavioral reaction and intangible commitment is adapted within the lines of restructured internationalization knowledge to relieve the perceived stress (ΔIK & ΔIC).
	C°CCC-2, C°DDD-1, C°EEE-1	C°GGG-1

7.3.5 Two extra scenarios

As stated above, the selection of the fourteen cases of progression occurred on the basis of the reconstructed chronologies. The analysis of the cases identified two crucial conditions in the first step of an episode of progression, i.e. the perception and validation of a stimulus. On the basis of deduction, two extra scenarios arise. A first additional scenario occurs when the organization's internationalization knowledge blocks or prevents the company to perceive an environmental stimulus. This happens when the stimulus is not in line with current norms and routines (Cohen and Levinthal, 1990; Knight and Liesch, 2002; Ocasio, 1995). For instance, when the focus is put on expansion in Europe, interesting market signals from the Chinese market might be ignored or not recognized. Consequently, nothing ensues as the organizational equilibrium is not distorted.

A second additional scenario occurs when a stimulus is perceived but the extra market knowledge does not result in a commitment change because the stimulus is not found challenging for the company's internationalization. Here, internationalization knowledge prevents the change in market knowledge to be translated into a disturbing commitment change. The extra market-specific knowledge merely confirms the current situation; both the organizational attitude as the current investments towards the market at issue, are judged appropriate. Alternatively, the organization can decide that despite the potential behind the stimulus, its current capabilities are insufficient to respond and further consideration is found inappropriate (cf. Eriksson and Chetty, 2003; Knight and Liesch, 2002; Nonaka, 1994). Consequently, no stress arises and the organization remains in an equilibrium state. For instance, when the focus is put on expansion in Europe, interesting market signals from France confirm the organization in its current approach of the French market.

In sum, two extra scenarios are added to explain episodes of progression in internationalization processes. However, these two scenarios differ from the other four because in these scenarios organizational equilibrium is not disturbed

by an environmental stimulus. In these scenarios progression refers to a mere confirmation of the current situation as is further explained in 7.4 below.

7.3.6 Flowchart of six scenarios

The origin of the six scenarios can be summarized in a flowchart. The discussion in the four steps above revealed that the scenarios mainly arise in step 3 where a response to the stimulus is sought with an exception of the two additional scenarios that already arise in step 1 before stress is perceived. Figure 7-4 schematically depicts the descriptive layer of the mid-range theory. In line with standard design rules for flowcharts, ovals represent the beginning and end of an episode of progression, diamonds decisions within the process, rectangles an action taken place, and arrows indicate the sequence in which events occurs.

In the flowchart abstraction is made of moderating and mediating context variables (e.g. industry, firm size, competition, etc.). Although these context variables may affect progression significantly at various stages, it is assumed that they do not undermine or refute the central logic put forward above. Consequently, for the sake of simplicity, attention is solely put on the key constructs. In brief, in its initial and stable equilibrium position the internationalization process is characterized by an unspecified level of intangible (IC) and tangible (TC) commitment, with IC equal to TC. As a consequence no stress (S) exists. Furthermore, the organization can be characterized by its market knowledge (MK) and internationalization knowledge (IK) that will affect the response to the environmental stimulus that is the beginning of the flowchart.

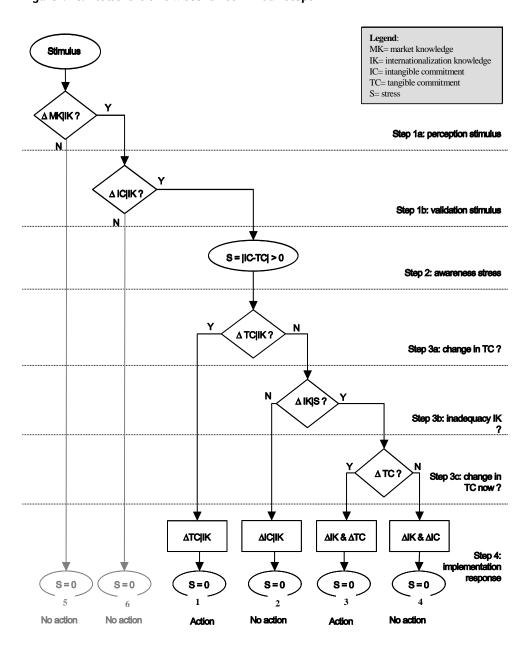


Figure 7-4: Flowchart of six scenarios in four steps

7.4 Learning in the scenarios

In this section, the third layer of the mid-range theory is developed, as explanation for progression in internationalization processes is offered by focusing on the learning activities underlying the six outlined scenarios. In particular, learning is discussed as the generative mechanism that drives the interaction between knowledge and commitment in the four delineated steps of an episode of progression in internationalization processes. Forsgren (2002) scrutinizes the concept of learning underlying the Uppsala model and concludes that the original model uses a more narrow interpretation of learning than allowed by the literature today⁸. Consequently, the original model's ability to explain and predict current internationalization behavior is restricted. Case evidence allows us to agree with Forsgren (2002) that learning in internationalization processes goes beyond exploitative experiential learning.

In particular, in this section, the basic argument is put forward that the six scenarios that arise in the four delineated steps differ with regard to the level of learning driving the knowledge and commitment changes. Two generally adopted levels of learning are distinguished; exploitative or lower-level learning versus exploratory or higher-level learning (e.g. Fiol and Lyles, 1985; March, 1991; Lant and Mezias, 1992). As discussed in chapter 4 (see section 4.4.1 and 4.7.2), exploitative learning occurs within the existing framework of a firm's knowledge base — here the organization's internationalization knowledge, whereas exploratory learning refers to a restructuring of that knowledge base. Indeed, the difference between the scenarios lies in the impact of learning on the company's internationalization knowledge. Furthermore, case evidence reveals

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⁸ Chapter 4 contains the discussion on learning in the original Uppsala model, the findings of Forsgren (2002) and organizational learning concepts to improve upon the Uppsala logic (see section 4.4.3 and section 4.7.2).

that additional knowledge is gathered by means of experiential learning complemented with other ways of acquiring knowledge as distinguished by Huber (1991)⁹.

7.4.1 Exploitative learning to perceive and validate the stimulus

Analysis of the learning activities in the first step of an episode of progression reveals that <u>exploitative learning</u> characterizes this step. Case evidence shows that the perception and validation of the stimulus is based on common learning routines and norms inherent in the organization's internationalization knowledge. In this first step, additional market knowledge is gathered and assimilated within the lines of this internationalization knowledge. Consequently, the internationalization knowledge is refined and adapted as extra market knowledge is added (cf. March, 1991; Sinkula, 2002) but never questioned as explained below.

First, with regard to the <u>perception of a stimulus</u>, current routines allow the acquisition of additional knowledge about a particular market. Cases show that perceiving the stimulus occurs through own activities in the foreign market such as carrying out daily rides to a particular destination or through the intense communication between domestic headquarters and foreign subsidiaries – i.e. experiential learning (cf. Huber, 1991). However, other sources signal opportunities/problems as well. For instance, in the cases studied, network contacts such as clients and partners often share experiences about foreign markets – i.e. vicarious learning; or new subsidiaries in an acquired network indicate interesting environmental changes – i.e. grafting. Consequently,

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⁹ Huber (1991) identifies five different ways of *acquiring* knowledge; i.e. congenital learning, experiential learning, vicarious learning, grafting, and searching and noticing which are defined in section 4.7.2 above.

learning in this first step clearly goes beyond own experiential learning, which corresponds to contemporary research findings (e.g. Yli-Renko et al., 2002; Lord and Ranft, 2000; Shenkar and Li, 1999; Barkema and Vermeulen, 1998).

Especially learning through network contacts appears to be very important both as a resource and a capability. The case companies studied unanimously agreed that network actors such as clients, competitors, consultants, suppliers, and so on often signal particular issues that turn into actual problems/opportunities for Hence, the interviewed managers emphasized that the service provider. investing in maintaining and developing relationships with a wide variety of parties in the market is crucial to keep informed about future developments. Furthermore, the case companies have their procedures for keeping contact with these parties. For instance, management regularly talks to drivers and warehouse personnel to stay up-to-date about the latest rumors in the market concerning mergers of competitors, client satisfaction, competitive suppliers, and so on. Similarly, the case companies studied participate in fares, become members of professional organizations, keep in contact with previous employees, all with the main aim of getting access to information that might be crucial for their organization. Ample support is found in the literature for this finding (e.g. Ellis and Pecotich, 2001; Chetty and Eriksson 2002; Lindstrand, 2003; Hadley and Wilson, 2003).

For the <u>validation of the stimulus</u>, exploitative learning further characterizes the underlying learning processes as common procedures within internationalization knowledge lead a search for additional market knowledge to confirm or contradict the perceived stimulus. Especially, information is sought that supports the current frame of reference (Kuwada, 1998; Knight and Liesch, 2002). Again, the case companies studied do not restrict to own experiential learning, but rely on vicarious learning and explicit searching as well. Contacting actors in the

network appeared to be an important source for additional market knowledge in the cases studied. For instance, the case companies approach experts such as auditors, financial advisors, and consultants next to current clients to get more information about the market at issue. Furthermore, the case companies use formal and systematic searches to obtain information on the financial and strategic attractiveness and feasibility of responding to the perceived stimulus.

Next, the organization has to come to a shared understanding (Crossan et al., 1999) concerning the challenge related to the perceived stimulus. Case evidence shows that in this step a team is installed that discusses the knowledge gathered and that tries to come to a common perspective. In line with Nonaka (1994), the cases demonstrate an extensive use of knowledge of external and internal experts in this interpretation process. Nevertheless, this step still builds on exploitative learning in the sense that cognitive maps (Huber, 1991; Nonaka, 1994; Sinkula, 2002; Eriksson et al., 2001) inherent in the internationalization knowledge affect the procedure and outcome of the interpretation of the acquired knowledge. For instance, the makeup and methods of the teams that look into potential problems/opportunities differs from case company to case company. Generally, in the cases studied these teams are small but very heterogeneous containing financial, operational, and commercial representatives.

Eventually, the shared understanding leads to a change in commitment towards the market at issue. A change in intangible commitment – i.e. in the organization's beliefs – towards internationalization in a particular market means that learning has occurred. Indeed, the organization's interpretation (Huber, 1991) of the appropriateness of the current internationalization activities has changed because of the additional market information. Learning here relates to a change in cognition (cf. Dodgson, 1993; Huysman, 2000) as the company's insight in internationalization is adapted. Nevertheless, at this stage, the new

interpretation still fits with the norms and routines captured in current internationalization knowledge. The additional market knowledge contributes to the refinement of the internationalization knowledge (cf. March, 1991; Tushman et al., 1986).

In the three cases studied that we described earlier as offering the basis for theoretical replication, beliefs did not change because of the extra market knowledge. To the contrary, the attributed intangible commitment towards the market at issue remained the same despite the (potential) change in tangible commitment caused by external parties. Learning in the sense of gathering and interpreting additional market knowledge in these cases resulted in the strong confirmation of current interpretations and as such in the desire to remain tangibly committed in the markets under consideration.

7.4.2 Exploitative learning to become aware of stress

In the second step of an episode of progression, the organization becomes aware of stress in the continuous comparison of aspirations and realizations. Perceiving stress follows the change in commitment towards the market at issue in the previous step. Learning in this step merely relates to coming to a shared understanding (Huber, 1991; Nonaka, 1994; Crossan et al., 1999) in the interpretation of the information that aspiration and realization no longer agree. As stated in section 7.3.2 above, this second step represents the motor of the process (Pettigrew, 1992; 1997) underlying progression because stress causes disequilibrium which is needed to provoke more learning in the organization in order to regain equilibrium (Fiol and Lyles, 1985; Huber, 1991). In other words, stress induces a search for causes and solutions.

7.4.3 Exploitative and exploratory learning to search for response

Analysis of the learning activities in the third step reveals that progression in internationalization further develops by means of exploitative and in some cases exploratory learning. In line with evolutionary models of organizational change (e.g. Barnett and Burgelman, 1992; Gersick, 1991; Romanelli and Tushman, 1994), and the findings of Eriksson et al. (1997; 2001) and Kutschker and Bäurle (1997) we argue that progression in internationalization processes is usually a matter of incremental change, but sometimes it concerns revolutionary change. Following sections discuss the level of learning in the six different scenarios that arise in order to respond to an environmental stimulus.

7.4.3.1 Exploitative learning in Scenario 1 and Scenario 2

As discussed above, the first reaction to eliminate stress is a search for a solution within the boundaries of current internationalization knowledge (Sub-step 3a). In terms of learning, this type of reaction is the result of exploitative learning. In particular, the additional market knowledge gathered in the first step is compared to existing norms and routines of doing business abroad (cf. Eriksson et al., 1997; Anderson and Skinner, 1999; Anderson et al., 1998). In most cases studied, a focused search (Huber, 1991) soon leads to sufficient analogies with previous situations and the organization decides upon a response. For instance, previous experience with setting up a foreign subsidiary by means of an acquisition pleads in favor of this response in the market at issue, or membership in a dense network of contacts in the market under consideration supports the establishment of a local subsidiary to increase access to that market. Exploitative learning in this step is characterized by satisficing behavior and sequential searching which implies that the first solution that fits, is adopted (Winter, 2000; Pauwels, 2000; Sastry, 1997; March, 1991) because organizations aim at minimizing searching costs and ambiguity (Lant and Mezias, 1992).

Hence, the outcome of learning in this step is a change in cognition and/or behavior corresponding to contemporary perspectives on organizational learning (e.g. Huysman, 2000; Williams, 2001). In particular, the extra knowledge gathered and interpreted in this step leads to a change in either tangible or intangible commitment. In <u>scenario 1</u>, the additional market knowledge reduces uncertainty and perceived risks and the organization decides upon a change in investments to regain equilibrium (Table 7-5) summarizes the cases in which a response was found within extant internationalization knowledge). As such, learning in this step of scenario 1 leads to the identification of a concrete action to reduce the perceived stress. In scenario 2, the organization does not find a response within its current range of routines, as was the case in one episode of progression studied. In this case, the company studied temporarily engaged in further knowledge acquiring activities by means of own experiential learning, vicarious learning, and searching. However, on the basis of the interpretation of the additional market knowledge, the organization judges the perceived opportunity/problem insufficiently challenging to change their norms and routines (Sub-step 3b) given the current situation. Here, equilibrium is regained by readapting the changed beliefs towards the market at consideration. Learning in this step of scenario 2 leads to the insight that action is not appropriate given the company's current position.

Incremental change that consolidates current norms and routines characterizes these two responses. In nine cases (see Table 7-5) responses are compatible with the existing structure of the organization, and as such Tushman et al. (1986) refer to changes *in* the organizational system that refine or slightly adapt chosen strategic orientations – i.e. extant internationalization knowledge. Thus, the system's basic organization and activity patterns stay the same, which means that the validity of the basic norms and routines is endorsed (Gersick, 1991). Again, the solution identified in these cases to respond to the perceived

challenge is considered to be a logical continuance of doing business in the market at issue. In some cases, no previous experience existed with the particular solution chosen but management in the case companies did not see these responses as frame-breaking.

7.4.3.2 Exploratory learning in Scenario 3 and Scenario 4

Exploitative learning is sometimes unable to resolve stress. In these cases, the interpretation of additional market knowledge does not reveal sufficient analogies with previous situations to come to a suited response (see section 7.3.3.2 above). In scenario 2, this insight leads to a re-adaptation of the changed belief because changing the norms and routines is considered inappropriate for strategic, economical and/or political reasons. However, other cases show that management considers the perceived stress challenging enough to get into exploratory learning (positive answer question in Sub-step 3b) in order to adapt the norms and routines and find a response to the challenge. The fact that organizations first reassess whether the stress 'deserves' a radical response in the sense of restructuring internationalization knowledge is in line with Sastry's (1997) finding that organizations avoid inappropriate reorientation by ensuring the inadequacy of the current frame of reference. Consequently, the need for a change of the system (Tushman et al., 1986; Gersick, 1991) is acknowledged and aimed at in scenario 3 and 4.

Frame-breaking initiatives are taken to identify a new response. First, the acquisition of more market knowledge that prepared the organization for changes in the internationalization knowledge occurred via systematic searching, grafting and vicarious learning (cf. Huber, 1991). For instance, competitors were approached to discuss potential partnerships; experts from governmental institutions were allowed to assist in identifying and approaching potential

clients and suppliers; consultants were involved in valuing a company seemingly interesting for a take-over; and so on. The crucial element is that the case company experienced the knowledge gathering and interpretation as significantly different from their previous procedures. They felt quite insecure in relying on a different procedure that often contained the involvement of third parties. Nevertheless, they were convinced of the necessity of an alternative approach, which exceeded the higher risks.

In three cases, an episode occurs according to scenario 3 as a restructuring of internationalization knowledge is eventually accompanied by a change in tangible commitment (positive answer question Sub-step 3c). As such, learning results in an actual change in behavior next to the additional insights. Tushman et al. (1986) prefer a rapid implementation period because frame-breaking change is a risky and uncertain venture and speeding up the realization of the solution shortens the period of uncertainty and instability. However, despite frame-breaking knowledge gathering and interpretation, new insights can convince the organization to postpone action. As Crossan et al. (1999: 524) note: "Understanding quides action, but action also informs understanding." In one case, an episode occurs according to scenario 4 as understanding advised to delay action and the restructuring of internationalization knowledge was accompanied by a mere change in the range of potential alternatives. In order to regain equilibrium, in this case, the service provider decided to readjust the intangible commitment towards the market at issue (negative answer question Sub-step 3c). The insights resulting from questioning and adapting extant norms and routines indicate that the company is not ready for action yet. Various economic, strategic and/or political reasons exist to delay concrete action.

In line with Kuwada (1998) and Lant and Mezias (1992), exploitative learning is found to lead to exploratory learning when exploitative learning does not provide

an answer to the perceived stress. This contradicts the original logic of the punctuated equilibrium model in which Romanelli and Tushman (1994) argue that the processes underlying evolutionary and radical change differ fundamentally. However, endorsing Lant and Mezias (1992), case evidence suggests that the same processes that lead lower-order learning provide the raw material for higher-order learning. In confirming the importance of the perceived stress (Sub-step 3b) the companies studied switched from exploitative to exploratory learning. Management admitted that other than common procedures were needed and knowledge gathering and interpretation was allowed to occur in a non-ordinary way.

7.4.3.3 Institutionalization in Scenario 5 and Scenario 6

Two extra scenarios are distinguished that can arise in Step 1 when the stimulus is not perceived (negative answer question Sub-step 1a) or found unchallenging (negative answer question Sub-step 1b). In these cases, the routines and norms captured in the organization's internationalization knowledge are confirmed in the sense that the extant frame of reference is justly or unjustly allowed to block the stimulus from further consideration. The concept of institutionalization (Romanelli and Tushman, 1994; Haveman, 1993; Crossan and Berdrow, 2003) offers explanation in these scenarios. By means of hindering the stimulus to provoke stress, the organizations validate coherent systems of shared understandings that support continuation of the established patterns (Nonaka, 1994). In these two scenarios, early assessments of an environmental stimulus lead to the conclusion that current norms and routines are appropriate for the organization, and that current internationalization is in line with the organizational expectations. No need for change is perceived; the organization prefers to maintain the current stability as management is convinced of the reliability of current decision-making (Huff et al., 1992; Crossan et al. 1999).

7.4.4 Outcome of learning is response to stress

The fourth step delineated contains the definitive response, which is the final manifestation of learning (exploitative, exploratory or institutionalization) taken place throughout the process underlying an episode of progression. Although in only two scenarios particular action is taken, learning has occurred in the other four scenarios as well as discussed above because learning can also refer to changes in cognition, which implies that the potential range of responses is confirmed or changed.

In line with the work of Eriksson et al. (1997; 2000a; 2000b; 2001) in all scenarios, the development of market knowledge occurs in an evolutionary way. Generally, additional market knowledge is the result of exploitative knowledge gathering and interpretation that feeds the refinement of internationalization knowledge. However, in two scenarios, additional market knowledge triggers a restructuring of internationalization knowledge. Here the organization's knowledge base towards internationalization is fundamentally altered. trigger for this change is extra market knowledge that is repeatedly confirmed as being highly challenging. Consequently, the ensuing stress is perceived as disturbing enough to get into frame-breaking learning, which results in more market knowledge that is obtained, interpreted and/or applied in ways that are new for the organization. The prerequisite for frame-breaking learning is a high intangible commitment towards finding a response to the perceived challenge. Top management must allow and promote initiatives that depart from extant routines and norms that appeared to be unable to bring relief.

7.4.5 Internationalization process as sequence of scenarios

Studying episodes of progression in internationalization processes led to the identification of six ideal-typical scenarios. In line with Kutschker et al.'s (1997)

categories of evolution, episode and epoch in internationalization processes, we argue that the whole internationalization process can be conceptualized as a longitudinal sequence of any combination of one, several or all scenarios. Returning to the selection of periods in the chronologies of the seven case companies that comprised various episodes of progression illustrates this statement. Table 7-8 typifies the cases within the selected period according to the identified scenarios.

Table 7-8: Sequence of scenarios within selected periods

Case company –	Case 1	Case 2	Case 3
case			
C°AAA	Scenario 1	Scenario 1	
C°BBB	Scenario 1	Scenario 1	
C°CCC	Scenario 1	Scenario 3	Scenario 1
$C^{\circ}DDD$	Scenario 3	Scenario 1	
C°EEE	Scenario 3	Scenario 1	Scenario 1
C°FFF	Scenario 2		
C°GGG	Scenario 4		

In addition to typifying internationalization processes as sequences of any of the ideal-typical scenarios, a study of combinations of scenarios can be very interesting to characterize typical routes. For instance, a series of episodes of progression that occur according to scenario 1 might be referred to as an evolutionary route. Alternatively, series that contain various episodes that occur according to scenario 3 or 4 might be referred to as accelerations when the restructured internationalization knowledge largely affects the perception and reaction to stimuli that would have been neglected before. Overall, we move away from the conceptualization of internationalization processes as a sequence of unitary progressions (Van de Ven, 1992; Melin, 1992). The development and exploitation of the organization's internationalization knowledge determines its internationalization route.

7.5 Analytical generalization: contribution of the midrange theory

As explained in chapter 5 on methodology, data analysis should end with a reflection phase (Eisenhardt, 1989; Pauwels and Matthyssens, 2003). The final question is whether the six scenarios of progression in internationalization processes represent a 'good' theory that outperforms extant explanations. According to Whetten (1989), Bacharach (1989) and Van de Ven (1989) a 'good' theory 1) is parsimonious but logically coherent, 2) fits with the data, and 3) provides new insights. The aim of this study was to improve upon the original explanation of the Uppsala model in order to accommodate better the dynamic and non-deterministic character of internationalization processes. Hence, in this section, we discuss the contribution of the six scenarios by paying attention to how and why the new theory complements, overlaps and contradicts existing views in the original Uppsala model put forward in chapter 4 (see section 4.2).

By capturing progression in internationalization in six scenarios, the new theory complies with the first two general demands of a 'good' theory. More specifically, the six scenarios <u>fit</u> with the <u>data</u> as the selected periods in the internationalization processes of the seven case companies can be explained by means of one or a combination of several distinguished scenario(s). In some case companies the selected periods already appeared to contain several episodes that occurred via similar of various scenarios (see Table 7-8). Overall, we propose that any internationalization processes can be considered as a longitudinal sequence of whichever combination of the six scenarios. As such, we believe that the multitude of current internationalization processes can be explained by a <u>parsimonious process theory</u> consisting of only five constructs that interact in a way that leads to no more than six scenarios. The logical coherence follows from the iteration between induction and deduction during

data analysis. Scrutinizing the selected periods in the case companies' chronologies identified four scenarios, nevertheless, in developing the flowchart, two extra scenarios emerged deductively for which clear support was found in the literature. By adding these two scenarios to the four empirically induced scenarios, the decision-points in the four delineated steps can be answered either positively or negatively. The freedom of choice in each decision-point underlines the key assumption of managerial discretion underlying the Enriched Uppsala Model as introduced in chapter 4. Furthermore, a closed system of episodes is obtained with each a clear beginning and ending (cf. Hendry and Seidl, 2003). Nonetheless, dynamism in internationalization processes is respected, as the outcome of one scenario can be the stimulus that triggers a following phase of progression leading to a sequence of any combination of scenarios.

With regard to providing <u>new insights</u>, the six scenarios are able to improve upon the explanation of the original Uppsala internationalization model (Johanson and Vahlne, 1977; 1990) on various points as highlighted in Table 7-9. The various points are discussed in more depth below.

Table 7-9: Overview new insights in mid-range theory compared to Uppsala model

	Uppsala model	Mid-range theory: 6 scenarios
Scope of explanation	Focus on early internationalization	Focus on internationalization at any time in the process
Nature internationalization process	Life-cycle – predetermined process	Teleological – goal driven process
Progression in internationalization	 Unitary – evolutionary More knowledge leads to more commitment. 	 Multiple – evolutionary or revolutionary More knowledge leads to more, less or the same commitment.
Explanatory constructs	Market knowledgeMarket commitment	 Market knowledge Internationalization knowledge Tangible commitment Intangible commitment Stress
Learning as generative mechanism	Experiential exploitative learning	 Exploitative learning and exploratory learning Experiential learning complemented with other ways of acquiring knowledge – i.e. grafting, vicarious learning, searching and noticing
Managerial discretion	Implicitly assumed	Explicitly incorporated in the decision-points in the four steps underlying the six scenarios.

- First, whereas the original Uppsala model is mainly focused at explaining early internationalization (Petersen and Pedersen, 1997; Andersen, 1993; Melin, 1992), the six scenarios in the mid-range theory can be used to account for internationalization at any time in the process. The explicit inclusion of the concept internationalization knowledge captures the organization's history with respect to doing business abroad and as such offers a relative starting-point for understanding particular behavior at any point in the process.
- Second, by means of depicting internationalization processes as any combination of one or several of the six ideal-typical scenarios in the midrange theory, we depart from internationalization as a life-cycle process (Van

de Ven and Poole, 1995: 515) that assumes organic growth based on a logic that: "...regulates the process of change and that moves the entity from a given point of departure toward a subsequent end that is prefigured in the contrary, present state". To the endorsing Forsgren internationalization processes are conceptualized as teleological processes assuming that: "...purpose or goal is the final cause for guiding movement of an entity" (Van de Ven and Poole, 1995: 516). As such, the internationalization process of firms is understood to be affected by the assessment of potential goals and outcomes by the decision-makers, which can lead to the multitude of routes to internationalization as currently observed.

Third, a single stimulus to the internationalization process is found to result in six possible responses involving action or no action in the market at issue. Consequently, the new theory is able to explain both change and preservation in the internationalization process. Johanson and Vahlne's (1977; 1990) model to the contrary, only incorporates one response, namely experiential learning that leads to more market knowledge and consequently to an incremental accumulation of market commitment (scenario 1 in Figure 7-4). The explanation in the new theory is richer due to the refinement of the core concepts market knowledge and market (i.e. tangible) commitment on the one hand, and a broadening of learning as generative mechanism on the other.

In particular, the relationship between market knowledge and market commitment is now mediated by intangible commitment and internationalization knowledge. By means of the additional concepts (cf. Hadjikhani, 1997; Eriksson et al., 1997), the mid-range theory is able to explain situations that are considered a-typical in the Uppsala model. In

particular, the Uppsala logic cannot explicate cases where changes in market knowledge do not result in changes in tangible commitment. In our midrange theory, to the contrary, we even distinguish between three different scenarios in which the organization gains additional market knowledge but where no change is made in its international involvement (cf. scenario 2, 4 and 6 in Figure 7-4).

Furthermore, <u>learning</u> is found to go beyond exploitative learning as the midrange theory allows for situations in which organizations turn to exploration or institutionalization (cf. scenario 3, 4 or 5, 6 respectively in Figure 7-4). Consequently, progression in internationalization is not restricted to a predetermined evolutionary route as assumed by the Uppsala model. Contrarily, exploratory learning that restructures the organization's internationalization knowledge is assumed to lead to more revolutionary routes (cf. Kutschker and Bäurle, 1997; Eriksson et al., 2001).

Finally, the mid-range theory does <u>not restrict learning to own experiential learning</u> alone. To the contrary, on the basis of case evidence both grafting and vicarious learning are considered usable to get access to knowledge captured by network contacts (cf. Forsgren, 2002; Knight and Liesch, 2002). This implies that progression in internationalization can occur rather rapidly as opposed to the slow and gradual way assumed in the Uppsala model.

Fourth, the scenarios <u>explicitly allow for managerial discretion</u>, as the organization – in the sense of a group of managers – has to go through various decision-points (diamonds in Figure 7-4) to come to the most appropriate response given the environmental stimulus. Although we make abstraction of the particular role of individuals in building the scenarios, and use the summarizing perspective of the organization (e.g. the organization

perceives a stimulus or searches for a response), the crucial role of the individual manager is implicitly taken into account via the underlying assumptions of organizational learning in which individuals are considered indispensable (cf. Lähteenmäki et al., 2001; Easterby-Smith et al., 2000; Miner and Mezias, 1996). As such, we assume that managers can affect progression in the internationalization by selecting the best-suited scenarios given particular stimuli.

Overall, the mid-range theory goes further than a mere refining of the underlying constructs. By means of the six ideal-typical scenarios that arise in four steps, the interplay between the constructs is upgraded and made explicit as well.

7.6 Service types and focus on progression in internationalization

In the theoretical platform discussed at the end of chapter 4 we propose that manifestations of progression in internationalization are the result of the particular interplay between market knowledge and market commitment on the one hand and the service type offered on the other (see Figure 4-4). However, in constructing the mid-range theory, we made abstraction of the service types offered by the case companies. A core assumption in this study is that the particular service type offered affects the internationalization of a service organization. Unfortunately, in typifying the service packages of the case companies after their selection/engagement, a dominance of type A - Routine Services became clear. The dominance of routine services in the service packages of logistic services providers is reported in other studies as well (e.g. van Hoek, 2000). This implied that we had insufficient variety to study the impact of the service type offered on the choice of a suited commitment change (manifestation) to respond to a validated stimulus. Consequently, we had to decide to refrain from studying the impact of the service types on the selection of a particular response. The focus was exclusively put on the internal organizational process that occurs when a (service) company is faced with an environmental stimulus that calls for a response.

Apart from the practical problems that prevented us to study the impact of the service types defined in chapter 3 on episodes of progression, it could be argued that the difference in level of analysis hinders a simultaneous examination. More specifically, the classification of service types zooms in on the interaction between the service provider and client, whereas the mid-range theory offers a more abstract organizational perspective. We acknowledge the difference in level of analysis. Nevertheless, we believe that a simultaneous examination is possible

at the organizational level because the impact of service characteristics on the internationalization process is related to the ease of the knowledge replication combined with the requirements to allow a particular interaction with the client. For the study of progression in internationalization we expect that these two issues primarily count at an organizational level. More specifically, the moment that the company has to decide upon a specific change in its tangible or intangible commitment (ΔC) to eliminate stress, we expect that the ease in which their service offer can be replicated abroad taking the required client interaction into account is one of the elements that sets the boundaries of possible alternatives.

To conclude, we studied progression in internationalization processes in the empirical context of service companies. Nevertheless, due to insufficient variety in our sampling we did not explicitly address service characteristics in constructing the mid-range theory. As such, our study unintentionally falls in the category of studies that improve upon a concept – i.e. progression in internationalization – that is examined in a service setting without using service characteristics in the explanation.

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 $^{^{\}scriptscriptstyle 10}$ The term knowledge here refers to the knowledge needed to deliver the service.

¹¹ Other elements are for instance resource constraints, preference for control, previous experiences and so on.

7.7 Concluding remarks

In this chapter, the Enriched Uppsala model introduced in chapter 4, is further developed by refining the two original constructs market knowledge and market commitment into four pillars - i.e. market knowledge, internationalization knowledge, intangible (attitudinal), and tangible (behavioral) commitment. The interplay between these key internationalization resources characterizes progression in the process. Furthermore, we build upon learning and the presumption of stress reducing behavior to theorize on the dynamic character of internationalization. The fourteen cases selected within the internationalization processes of seven case companies resulted in the delineation of an episode of progression in four steps. Within these steps, four ideal-typical scenarios of progression arise in which the case companies respond to environmental triggers. In building a flowchart to clarify the origin of the four scenarios, two scenarios were deductively added to complete the underlying logic of the scheme. Overall, each of the six scenarios leans upon a longitudinal interaction between (a selection of) the four aforementioned constructs within a dynamic logic defined by exploratory and/or exploitative learning.