CHALLENGES OF BORN GLOBAL FIRMS – NDRIVE CASE STUDY

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ABSTRACT

Title: Challenges of Born Global firms - NDrive case study

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When reviewing international strategy relevant theory, I found very interesting the born global firm's theory. I chose NDrive and I realize that the company fitted well in this context. Although this theory was introduced in the 90s, it continues to have relevance today with more and more companies in the same situation.

This case study and the theory embedded will allow students to develop knowledge in strategic management with focus in internationalization strategies and apply important strategic frameworks. In that sense, the purpose is getting students to discuss international strategies relating this case study with the theory of born global Firms.

When asked about implementing a good business idea, João Neto, NDrive Chairman, is peremptory "The only advice I can give is internationalization". With just over five years of existence, NDrive is an interesting success story in one of the most sophisticated markets in the world, the navigation software market. Being in a very competitive market, NDrive is gaining important scope and relevance.

The company describes innovative commercialization models based on three core areas: agreements with major international equipment manufacturers as LG, partnerships with mobile Telco´s as Vivo or by managing direct presence in apps stores. Taking advantage of partnerships and apps stores phenomena, the company is gaining an important global presence.

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PART I- BORN GLOBAL FIRMS THEORY

Definition

This born global phenomenon is explained by new small firms that internationalize rapidly at early stages of their development, even while quite small and unknown at home. For these entrepreneurial firms, waiting to get international experience and expertise to explore international markets is not an option, leveraging international strategy to a more relevant factor to the corporate strategy. These companies are usually high tech and that affects its way of internationalize in terms of speed, location and readiness to adopt their technology. In that sense, using McKinsey and Company (1993) characterization, born global firms maximum time from inception to internationalize is two years.

The traditional approach to internationalization is the "stage" model, in which a company first grows in its home market, and then starts exploring opportunities for expansion into close countries in the region. As the company's experience and familiarity with foreign markets grows, it subsequently ventures further overseas. A number of well-known large multinationals have followed this path like BP or Philips and continuing with much younger technology companies like Nokia and Ericsson.

However, as noted, these new companies' path to internationalization is much more rapid than the traditional one. Madsen and Servais (1997, p.565) refer key reasons for the emergence of born global firms as new market conditions, great advances in technology and managerial changes such as more capabilities and competences of the founders . As a consequence, this phenomenon bring many challenges to a company's management team and, in a sense, oblige the company to achieve great levels of efficiency at all levels in a short period of time. These firms are many times recognized by its organizational culture of proactivity, risk taking and innovation (Dimitratos & Plakoyiannaki 2003).

According to Chetty, Hutchings and Freeman (2012) these firms that start its internationalization from inception are becoming more and more common nowadays including well-known companies such as the case of easy-jet or Skype. Moreover, not only well known brands but also more small and medium firms are increasing their sources of competitive advantage in foreign countries through complex configuration of their resources and activities.

Born global firms have the need to internationalize faster into markets that are very receptive to their technology since the pressure to meet a relevant revenue stream quickly is quite high. At the same time, other important aspect is the relationship between top management international experience and international networks (Oviatt & McDougall 1995).

Chetty and Campbell-Hunt (2004) found that for born-global it is still important in the beginning of its internationalization process enter in more culturally proximate markets. However, they also comment the fact that once they start its strategy, they are more quickly to do the transition to culturally different markets than older firms. Moreover, Majkard and Sharma (1998) mention that in the case software companies, the actual software influences their pace of internationalization. In these ones, what matters in the decision making process is mainly the software usage characteristics of that market rather that cultural proximity.

Also referring Chetty, Hutchings and Freeman (2012), the previous international experience of managers is a key success factor to these firms. Personal network, inside and outside connections as well as previous experiences contributes to provide the company valuable and difficult to imitate resources such as business advices or the emergence of opportunities that are determinants in their internationalization pace.

Freeman, Edwards and Schroder (2006) select some characteristics common to these firms:

Common characteristics

- A domestic market that is smaller to achieve financial viability
- Strong commitment from top management to the idea of internationalization
- Relevant personal networks that provide the basis for establishing partnerships and alliances
- Unique technology that provides a source of competitive advantage
- Continuous growth through partnerships with suppliers and distribution allies
- Throughout time an increasing adaptation to sustain and meet partner´s needs and development of new collaborations to support products diversity and market expansion
- Use of multiple entry modes in different combinations target for different markets

Traditional vs. global firm view

As we already refer the "stage model" or traditional approach observe the internationalization process as a set of incremental steps. Learning more about a specific market context brings a higher commitment to invest on resources in that market. The modes of enter as well as the choice of the market happen in a gradual process, first with exports and culturally closed countries. On the contrary, the born global approach of the internationalization process defies this view.

New ventures and larger firms show different behavior in its way to internationalize. Chetty, Hutchings and Freeman (2012) add that unlike what happens with traditional firms, the success determinants for born-global firms extends well before the actual firm foundation namely on knowledge and networks that the managers developed through past experiences. Moreover, important changes in technology, communication, trade policy and law are making larger firms more sensible to competition from agile smaller firms.

Born-global companies search for dynamic markets that offers momentous opportunities, and in that sense, success is determined by how they can anticipate and act upon to this range of opportunities. Chetty, Hutchings and Freeman (2012) say that in contrary of older firms, internationalization strategy acts for born-global firms as a unique challenge to exploit and discover opportunities in the marketplace because they are not tied to a history or to some resources and feel the intense pressure to accelerate their expansion pace.

Finally Chetty, Hutchings and Freeman (2012) also comment the differences in behavior pattern and knowledge in these two companies' models:

Proactive vs. reactive behavior: firm actively seeks for new customers and markets vs. firm responds to opportunities that appears within ongoing interactions with external sources such as for example the pressure of a customer to enter in a new market. Bell et al. (2003) mentioned that for born-global firms the uses of client followership as a mode of enter in a new market is more relevant than other firms with less use of distributors and more integration with clients and customers channels. However, born global firms can act more proactive than older firms taking more risks due to higher pressure to increase its revenue stream.

International vs. Technological Knowledge: conducting the business in an international context vs. experiential knowledge in the technologic visible in companies' product and services. Born global firms rely more on their technological knowledge in order to compensate its lack of international experience in relation with older firms. In that sense, these firms need to leverage these technological skills and capabilities and develop important networks with newly firms as well as building partnerships with older firms that have more international experience.

According to Chetty and Campbell-Hunt (2003) investigation, the salient differences between the two views can be summarize in: time to internationalization, capability to internationalize, importance of the home market, psychic distance, influence of firm strategy and use of networks (see **EXHIBIT 1)**

The authors refer that firm´s domestic market is considerably more relevant in the traditional view in relation with the born global approach (McKinsey and Co. 1993). These last firms recognize the limited importance in the inception time not confining to that single country. Despite this fact, for many born global firms home market is important to gain international credibility (Chetty and Campbell-Hunt 2003).

Other relevant issue is the influence of strategy in internationalization process. Born global´ strategy is focused on internationalization as the main driver to reach a leading position in niche market or emerging markets in contrary with older firms not stressing internationalization as the main source of advantage.

As a conclusion, there are some differences that can be identified between born global firms and firms that use a more traditional path such as in operational modes, decision making attributes as well as strategic focus.

Overcoming the challenges of being born global

Born global firms experienced a series of constraints for its intrinsic definition, being small and experience a rapid international exposure right after its inception. Freeman, Edwards and Schroder (2006) identify them as lack of economies of scale, lack of resources both financial and knowledge and aversion to risk taking. In that sense, the use of partnerships and alliances and relating also the use of innovative technology help the company fight those setbacks.

Freeman, Edwards and Schroder (2006) refer that these firms doesn't experience great levels of economies of scale in their domestic market not high-prices opportunities. Therefore, in order to reach an appropriate scale born-global approach both local suppliers as well as foreign customers. They create strategic alliances to develop a certain level of commitment and loyalty in its relationship across both ends of their value chain with the view to expand its position internationally. They also refer that being able to attract key and larger players and follow them (client followership) are essential to gain market coverage working as a dependency relationships (technical knowledge for international and market knowledge).

In order to demonstrate an explanatory framework of how these companies overcome constraints, Freeman, Edwards and Schroder (2006) address five important strategies: extensive personal network, collaborative partnerships with large customers and suppliers, client followership, use of advanced technology and multiple modes of entry. These strategies acknowledge the need for firm-specific resources that deeply affect the pace of internationalization. In **EXHIBIT 2**, the authors relate the importance of external and internal environment and its impact on the constraints of being a born global firm the five strategies to overcome those.

Acknowledges of the findings of Caloghirou et al. (2004) determine that firm-specific factors as organizational characteristics have a greater role in comparison with external or market factors to companies' performance.

Client followership is important as well in the sense that minimized the financial risk and burden since companies are sharing the risk with partners. Therefore, they can follow the client base of partners in order to expansion their market base in a less risky manner (Bell et al. 2003). The use of advanced technology can also improve born global changes to success using that as a valuable asset. Finally, they usually use many modes of enter as strategic alliance, JV (joint ventures), owned subsidiaries (Karlsen et al. 2003) and client followership (Bell et al. 2003) to market penetration.

As a conclusion of this part, we can comment on how these strategies can in fact diminish companies' intrinsic constraints. Freeman, Edwards and Schroder (2006) refer the way companies use to achieve economies of scale being trough collaborative partnerships that allow them to achieve that more quickly as well as outsourced activities that are not contributing internally to the desirable unit costs. The use of multiple modes of entry and partnerships helps to culminate the lack of financial and knowledge resources and in that sense facilitates both debt and equity financing. Finally, managing high-risk companies, managers need to minimize the risk with strong alliances and personal network. **EXHIBIT 2** (Freeman, Edwards and Schroder 2006 (page 55-56)) can exemplify the interrelation between constraints and strategies to overcome those.

EXHIBIT 1

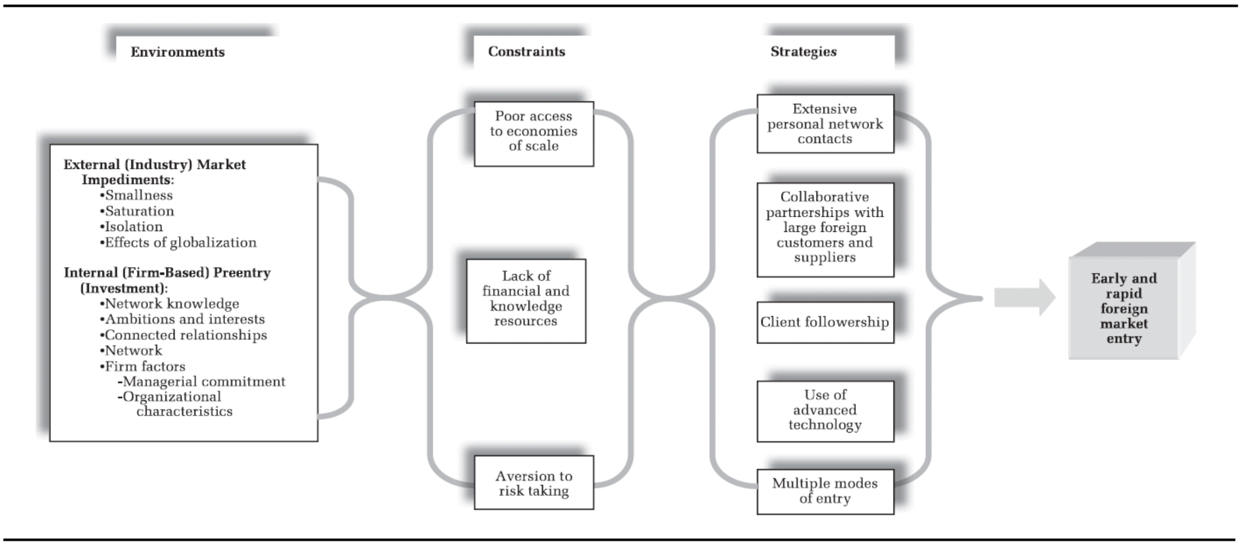
Internationalization Attributes	Traditional Stages View	Born- Global View
Home market	Domestic market developed first	Domestic market largely irrelevant (study requires 75% export ratios)
Prior internationalization experience	None expected	Founder has extensive experience in relevant international markets
Extent of internationalization	International markets developed serially	Many international markets developed at the same time
Pace of internationalization	Gradual	Rapid
Psychic distance	In order of psychic distance	Psychic distance irrelevant
Learning to internationalize	At a pace governed by the ability to learn from (slowly) accumulated experience	Leaning occurs more rapidly because of superior internationalization knowledge
Firm strategy	Not central to the firm´s motivation to internationalize	Realization of competitive advantage requires rapid, full internationalization: product-market scope is focused/niche
Use of information and communications technology	Not central to internationalization	Key role as enabler of global markets reach and learning
Network of business partners	Used in early stages of internationalization and gradually replaced by with firm´s own resources	Rapid development of global reach requires rapid, comprehensive network of partners
Time to internationalize	Not crucial to firms success: slow	Crucial to firms success within a few years of inception (e.g. two years)

Source: Chetty S., & Campbell-Hunt, C. (2004), “A Strategic Approach to Internationalization: a Traditional Versus a ‘Born Global’ Approach”, *Journal of International Marketing,* 12 (1), pp. 57-81.

EXHIBIT 2

	Constraints		
Strategies	**Poor access to Economies of Scale**	**Lack of Finantial and Knowledge Resources**	**Risk aversion**
Personal networks	Rapid increase in sales volume is achieved by using rapid increase in sales personal networks to establish partnerships and alliances quickly.	Limitations in financial and knowledge resources are overcome using formal and informal alliances developed through personal networks. Access to key markets is gained at a low cost through collaborative arrangements.	Risk is reduced by establishing alliances with partners with whom a relationship of trust already exists through personal networks.
Collaborative partnerships	Economies of scale in production were achieved by developing relationships with suppliers, which enabled firms to outsource activities for which they could not achieve economies of scale internally. Large, growth-oriented distribution partners facilitate rapid growth in international sales and associated economies of scale and provide links with competitors to meet large overseas orders.	Collaborative partnerships Economies of scale in production were achieved by developing relationships with suppliers, which enabled firms to outsource activities for which they could not achieve economies of scale internally. Collaborative partnerships (JVs and alliances) share financing expansion in specific markets. Rapid development of multiple networks facilitates access to knowledge resources for NPD (intellectual property).	Risk is shared though partnerships (JVs and alliances). Flexibility and adaptability (e.g., substituting importing for exporting) reduce the risk of losing a valued relationship.
Client followership	Trusted clients facilitate rapid access to new markets, allowing early, rapid growth and access to economies of scale.	Trusted partners provide access to knowledge resources and, in some cases, financial resources through JVs and alliances.	Risks associated with penetrating new markets are reduced by risk-sharing arrangements with existing partners.
Use of advanced tecnology	Unique technology is the key element giving the firm a competitive advantage that attracts customers and alliance partners, providing first-mover marketplace advantage and rapid growth that facilitates economies of scale.	Unique technology attracts partners that are able to provide the market knowledge the case-study firms lack.	Risks associated with the introduction of new technology and achieving first-mover advantage are reduced by the rapid learning that arises from trialing in multiple environments.
Multiple mode of entry	Multiple modes of entry facilitate access to multiple markets and, at the same time, enable rapid growth and access to economies of scale.	Multiple modes for entry into multiple markets and regions facilitate learning and generate cash flow.	Diversification of entry modes and distribution partners reduces the risk of being overly dependent on any one firm.

Source: Freeman, S., R. Edwards, & Schroder, B. (2006) 'How Smaller Born-global Firms Use Networks and Alliances to Overcome Constraints to Rapid Internationalization' *Journal of International Marketing*



Source: Freeman, S., R. Edwards, & Schroder, B. (2006) 'How Smaller Born-global Firms Use Networks and Alliances to Overcome Constraints to Rapid Internationalization' *Journal of International Marketing*

PART II - NDRIVE CASE STUDY

Introducing NDrive

When asked about implementing a good business idea João Neto, Chairman of NDrive, is peremptory to say "*The only advice I can give is internationalization*,"[1]. With five years of existence, NDrive plays an interesting success story in the navigation software market.

The company history started with the foundation of InfoPortugal in 2001. The main purpose was to create a reference in digital content collecting all Portuguese cartography and gathering database of journalistic information. At that period, neither 3G phones, Google maps nor smartphones existed and the company predicted that digital revolution would be oriented to content and services directed to final consumer.

Later on, the company entered in mobile segment with the appearance of the first smartphones developing a touristic application called the City Help. By 2005, with just five collaborators it developed the software NDrive. After achieving a HTC representation with their first smartphone, the company was consistently being driven away from its core business as a mapping provider. As a consequence, in 2007, there was the spin off between InfoPortugal and NDrive. The split allowed NDrive to increase its capital by € 1.4 million, maintaining a privileged business partnership with InfoPortugal in what content and digital maps was concern.

The mission

> *´Our goal is to develop innovative location based applications that enrich the experience of navigation, and using the information, as well as increasing accessibility and enjoyment for all. Therefore, we would like to be the first software company to merge the latest mobile application technologies in a single solution´.*[2]

By the time this case study was written, the key activities of NDrive included developing and licensing navigation software for PND[3] and mobile applications. "*The market for navigation systems is one of the few sectors of the consumer electronics that have three-digit*

[1] Magazine "*BIT- Tecnologia para Todos*" September 2009
[2] NDrive official website. Available at: http://www.ndrive.com/about [Accessed 23 December 2012]
[3] Personal Navigation Device

growth and should continue in coming years,"[4]said Joao Neto, Chairman of the company. NDrive uses a different approach using a hybrid solution in which the main content is incorporated in the smartphone rather that an off board in which content is only available by satellite. Its products incorporate innovative features as real time information, traffic integration among others. It was the first one to include a navigation option in which you can search for POI[5] in Foursquare and be automatically invited to check in, to Google search and Facebook location sharing. By 2007, Ndrive was already one of the top hype companies in the country. In fact, Portugal was embracing a technology revolution since the beginning of the decade. This was evident for example, when Mr. Aníbal Cavaco Silva, President of the Portuguese Republic, offered a PND with NDrive inside, to the King of Spain.

Over the time, NDrive felt the need to make important partnerships with various industry players such as clients, distributors and suppliers. Its main partners in terms of mobile operators include Portugal Telecom, Toshiba, Claro, TIM, Vodafone, T-Mobile and VIVO. *"Mobile operators finally consider browsing a strategic product differentiation"* underlines João Neto in this regard. With these partnerships the company reached an important customer base to distribute its software. On the other hand, agreements with content and mapping providers were also relevant including Quatro Rodas, NAVTEQ or InfoPortugal. NAVTEQ represents a leading global provider of maps, traffic and location data enabling navigation, location-based services and mobile advertising around the world. Yiannis Moissidis from NAVTEQ added *"Our rapidly expanding presence throughout Russia enabled us to provide NDrive with high quality navigable maps and content as well as effective local business support to help bring this new product to the market."*

The strategy of international expansion of NDrive has as one of its main drivers the licensing of software to major mobile phone manufacturers. João Neto said about Samsung partnership "*We believe that the partnership with Samsung will position us to a new level of global scale*". These manufacturers include also LG, Toshiba, HTC, HP, and ZTE which include NDrive´s software on its products offering navigations solutions to final consumer. Furthermore, partnerships with universities and investigation centers also gave great visibility to the company. An example of the potential of these agreements is the

[4] *SOL* journal, 2007. Available at: http://canais.sol.pt/paginainicial/tecnologia/interior.aspx?content_id=57149 [Accessed 23 December 2012]

[5] Point of Interest

development of an LBS[6] app for Electric cars with INESC Porto[7] , FEUP[8], INTELI[9] and with CEIIA[10] helping the user to be aware of charging conditions while at the same time locating the nearest place to recharge it.

By the end of 2009, when the company refocused all its attention to software development, the proportion in terms of customer segmentation B2C vs. B2B was 60 versus 40 in terms of sales volume. At that time, NDrive is focused its attention to the licensing of its software to other companies as mobile operators (e.g. PT[11]), retailers for example in Chile or Argentina, online mapping company as Mappy in France or hardware manufactures namely in Shenzhen, China. On the other hand, it is also focused on developing navigation products and real time services for consumers on PND and on mobile phones using local distributors and apps stores as the main distributor channels. Moreover, the market stage development changes dramatically between countries so NDrive uses a diverse portfolio in order to satisfy them. However, the reality is that consumers are becoming more demanding at a very fast pace having access to much information to evaluate the products at their disposal. Luis Baptista-Coelho, NDrive CEO, commented on this regard *"We are in the presence of the more informed generation in human history".*[12]

The company uses many vehicles to build costumer relationship as the use of humor in its products as for example using voices that copy some charismatic public figures as Pinto da Costa or Alberto João Jardim in its software. Moreover, by September 2010, it decided to close its customer service support by phone using instead email and social networks for that purpose. In that way, it was able to provide a faster response to the consumer who did not want to wait in a service line connecting in a very informal language. The company uses this support channel to build customer relationship and brand awareness such as sending a personal message when a regular customer buys a new product.

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[6] Location-based services refer to mobile application which provides information services and different functionalities to subscribers based on geographical location
[7] The Institute for Systems and Computer Engineering of Porto
[8] Faculty of Engineering of the University of Porto
[9] Intelligence and Innovation Centre
[10] Centre for Excellence and Innovation in the Automobile Industry
[11] Portugal Telecom- telecommunications operator
[12] Magazine *Marketeer*, September 2011. Available at:
http://ndrive.com/sites/default/files/press_release/Telecomunicacoes.pdf [Accessed 23 December 2012]

The participation in international conferences has brought important input to the company as market trends and technologic innovations as well as networking opportunities. The most important technologic event is held annually in Barcelona, The Mobile World Congress (GSMA), where NDrive has the opportunity to display its products to industry relevant players. In 2012, NDrive presented its newest product, NLife, with the objective of reinforcing its presence in Europe marketplace. In this context, managers' previous contacts were critical for the networking to create alliances and partnerships with key players.

Besides using key distributors and retailers, appstores are also important in the commercialization of NDrive products. It was one of the first ones to commercialize in these platforms although the competition has been increasing exponentially. Luis Baptista-Coelho commented on this regard "*NDrive quickly realized that the change happening in the software market for mobile devices, either in development or in terms of distribution, offered a unique opportunity to expand our business by giving us a global scale we intended*".

During 2010, the company grew substantially mainly due to its partnership with LG. During that time, NDrive felt the need to grow in its organizational structure in terms of people and infrastructures. That fact increased the pressure to meet a certain level of revenue in the near future and, by 2012, the company is adjusting its cost structure in order to be more balanced in the future (see **EXHIBIT 3**).

By 2012, the company is investing greatly in the freemium[13] market which relates to free application the basic features and the customers only pay for access to premium content. Moreover, the basic costs which include the mapping, development and operational costs are usually covered by publicity. The result is a data base of millions of users that use daily those applications using that market coverage to entice companies to explore the platform for tailored advertising purposes. The company is using this model in Portugal with PT[14] and in France with Mappy. The drawback of this model is to be very reactive in finding ways of monetizing the applications.

[13] Freemium: business model by which a product or service (typically a digital offering such as software, media, games or web services) is provided free of charge, but a premium is charged for advanced features
[14] With TMN Drive

Industry and Market overview

The consumer navigation market is becoming extremely fragmented. You can consider the array of navigation options available for a regular consumer: app with monthly subscription, premium app purchased, carrier-provided service, free services like Android's turn-by-turn, PNDs and in-car systems and then, of course, the old option, a road atlas.

From the industry perspective, the profitability of individual companies is driven by their ability to develop and market new and innovative products. Large companies often have advantage in terms of easier and cheaper access to capital and marketing but small companies can compete successfully if they have expertise in a particular field of knowledge. Moreover, the industry depends highly on demand from the computer industry and Telco equipment manufactures which can vary significantly from time to time.

More specifically, revenues for navigation devices traditionally came from hardware-based technologies. However, the industry is today experiencing a critical change with more users moving to software-based navigation offerings. In that sense, the revenue sources of the navigation industry are changing from almost entirely based on hardware-based sales to a 50-50 split with software by 2016[15]**.** The software market is extremely globalized, with more optimistic expansion in developing countries. However, revenue recognition is still a challenge for its players within software industry.

PNDs still dominates the navigation system market, especially in Europe and North America, but more and more handset owners are discovering navigation software especially in applications for mobile phones. Therefore and with the advent of apps, demand for PNDs is slowly diminishing declining to 41.2 million units manufactured in 2013 (see **EXHIBIT 4**). PND was introduces by larger firms like Garmin and Tom-tom but in 2009 Google introduced a free turn-by-turn navigation system for android. As a consequence, shares of PNDs makers plummeted and the entire industry business model had to be rethought.

[15] According to a research company - ABI research. Available at: http://www.abiresearch.com [Accessed 23 December 2012]

By 2012, many players in this industry are turning their attention to location-based solutions. Mapping and navigation are the most important in terms of revenues and second in relation to active users.[16] However, there is a slow growth of mapping and navigation location-based services due mainly to increasingly competition of free and low cost services. The general number of subscribers is expected to grow in the next years with fast enhancements as well as important developments in digital mapping software. In that sense, it is expected that by 2016, LBS[17] revenue will represent more than € 400 million in Europe and more than € 500 million in E.U.A (see **EXHIBIT 5**).

Moreover, by 2014, location based services will be primarily funded by advertising rather than on usual direct fees[18] with some exceptions as mapping and navegation where only accounts for 10 percent of total revenues.[13] However, it is expected a significant change in this last pattern with add revenues growing in relative and absolute terms in the next years. The reality is that relevant value chain players are showing great interest in location targeted adds but also some setbacks has been taking in consideration as user privacy as well as pricing of location data.

Applications market is growing close to 100% per year representing almost $ 10 billion (see **EXHIBIT 6**). More specifically, looking at top sells in apps stores, it is visible a stronger trend for free-to-download applications. Games applications were the first ones to explore this freemium market but nowadays other types of software apps are adopting this strategy as a way to maximize revenue. Navigation services, premium social networking as well as photography and video apps are the most popular in-app[19] purchases in the stores. By 2011, in-apps purchases represented 39% of total market revenue ($970 million) and it is predicted that percentage will increase to more than 60% of total market revenue by 2015 (see **EXHIBIT 7**). Marketplace is been changing its perception of navigation applications not seen as a premium or sexy application as before and, as a consequence, applications developers are turning their attention to freemium model. The increasing market tendency for freemium in some mature markets can be visible by looking at top applications downloaded

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[16] Berg Insight LBS Research. Available at: http://www.berginsight.com/ReportPDF/ProductSheet/bi-lbs5-ps.pdf [Accessed 23 December 2012]

[17] Location based services

[18] Berg Insight's LBS Research. Available at: http://www.berginsight.com/ReportPDF/ProductSheet/bi-lbs6-ps.pdf [Accessed 23 December 2012]

[19] Free applications with additional paid premium content

in the appstores as for example in apple store in which the top 100 paid application have two players in terms of navigation software while in top 100 free application they are more than 50.

The use of global positioning system[20] (GPS) is experiencing a boost generating approximately $9 billion and expected to generate $26.36 billion by 2016 at a CAGR of 23.7% from 2011 to 2016[21]. Many factors are contributing such as the increasing users of smartphones, mobile commerce as well as in terms of location based shopping. Indeed also smartphones and tablets have been growing substantially over the years and by 2015, it is expected to be sold over 1 billion of both products worldwide (see **EXHIBIT 8**). This growth is pressuring enterprises to be much more reactive to mobile security, mobile device management, and application support as essential services to the market.

The navigation industry is very competitive and is about trying to create navigation products or services that are faster, smaller, more detailed and more inclusive. The ability to come out with the newest or fastest product can give anyone the ability to make a quick jump to the top of the industry. The competition varies considerably between different segments of the industry and includes Tom-tom, Garmin or Magellan as well as smaller companies such as Copilot, Sygic or Navigon. Tom-tom offers a diverse electronic navigation portfolio being a market leader in many segments making most part of its revenues in Europe. In 2008, it bought the exclusivity of hardware production in China and acquired also TeleAtlas, an important maps provider. Due to these and more acquisitions, Tom-tom became undercapitalize and in a very fragile situation during that period but due to its strong brand awareness it was able to recover. By 2012, Tom-tom is not present yet in the freemium market but continues to lead the market of paid applications.

Garmin is another important player and, in light of Google's disruptive tactics, it chose to stay in its course continuing to evolve its line of PNDs by adding different functionalities getting around two-thirds of its sales in North America. Navigon was acquired by Garmin mainly for its expertise on the app industry since the company realigned its business around

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[20] Relates to a space-based satellite system that provides location and time information at any point

[21] *Markets and Markets*. Available at: http://www.marketsandmarkets.com/Market-Reports/global-GPS-market-and-its-applications-142.html [Accessed 23 December 2012]

navigation apps for smartphone making one of the most sophisticated and price premium navigation app.

Refocusing the business model

NDrive began in the business of importing and distributing hardware placing one of the first PNDs in Portuguese market in 2007. Its business model consisted on designing the hardware but delivering their production to Chinese companies to later import while also focusing on the development of navigation software content internally. In 2009, NDrive subcontracted a factory in Shenzhen, China, for production and assembly of the hardware, especially in plastic. "*The hardware is not our core business, hence outsource in China to manufacture*"[22] commented Eduardo Carqueja, CEO at that time. Later, the company entered in mobile platforms launching 2 smartphones models with NDrive brand. As well, NDrive also invested much in the development of PNDs creating the lightest and thinnest in the world at that time.

However, in 2009, the company completely refocused its business strategy to develop exclusively software leaving the hardware business behind. One of the main reasons was the great need for scale and capital in this last segment. Moreover, retailers crushed the sales margins leaving a company with low dimension as NDrive with little bargaining power comparing while larger competitors. One the other hand, having limited resources the company realized it was spending too many efforts and resources in production control and supervising and the quality requirements were not being properly met compromising the product reliability.

In that sense, in a progressive way, it focused on licensing its software to other larger firms under or not its own brand. In this regard, Eduardo Carqueja noted "*the route that GPS will take on the mobile phone is the same that the photographic camera already did*."[17] The company grew substantially during that process starting to expand to new markets worldwide. In that sense, in the beginning of 2012, company´s CEO referred in an interview for *Diário de Noticias* [23] that more than half of their business were being driven for mobile

[22] *Lusa* News Agency. Available at: http://noticias.sapo.pt/lusa/artigo/fccLXlGO3qgZEb69ytJM%2Bg.html [Accessed 23 December 2012]
[23] *Diário de Noticias* Journal

phones navigation solutions while the other part was selling their software to be installed in PND. The company´s leaders predict that in three years from 2012 most part of its revenues will come from freemium segment since they believe that the market will evolve fundamentally in that direction.

Internationalization expansion

On the genesis of NDrive creation was the project to internationalize. As CEO commented "*It is important to be where the market opportunities are. Technology has no passport.*" Internationalization process main focus was entering in developing countries with high growth perspectives as well as making an entry into developed countries. In **EXHIBIT 9 and 10**, it is possible to notice the top 14 countries for the company in term of revenue sales between 2009 and 2012[24].

Moreover, it tried to turn its attention to countries where big players had not such strong presence or where it could have commercial advantage. By the end of 2012, its stronger markets were represented by South America and Europe with cases of success in Brazil and in more mature markets such as France and Turkey. Company divided the market coverage in strategic regions having offices in Oporto (Portugal), in Shanzen (China), San Francisco (E.U.A) and in Brazil. As mentioned before, the company started its activity in Portugal in 2007 with its software and hardware products and by 2008 it was already expanding to Spain and later to Brazil. In this regard, João Neto commented "*Spain and Brazil are markets with strong business potential in navigation systems that use satellite technology, positioning NDrive as a global competitor in this business*"[25]. After that initial period, NDrive also extended its position to other countries mainly to Western Europe and Central-Eastern Europe as Scandinavian countries.

Later on, the company started to explore more developing markets with its software products in South Africa, Morocco, and Egypt as well as other countries in South America more specifically Chile and Argentina. More recently the company started to search for more mature markets as India, Thailand or Australia.

[24] Note: All revenues that come from Apple store are accounted in Netherlands as the client is Apple Netherlands
[25] *Lusa* News Agency. Available at: http://noticias.sapo.pt/lusa/artigo/fccLXlGO3qgZEb69ytJM%2Bg.html [Accessed 23 December 2012]

In terms of research the company uses mostly personal experience and networking. The company looks for business opportunities that arise over time to guide its international expansion as well as previous managers' contacts to leverage international knowledge (see **EXHIBIT 11**). The company enjoys different entry modes using maps providers, large and local distributors as well as just "box movers"[26]. Using local distributors to buy their software to incorporate on PND equipment means the market has still necessity of that product. Moreover, the company benefits much from client followership as well as the China office. By the end of 2012, the office in Shenzhen was relevant because of the development of important agreements with dozens of manufactures.

The company has presence in so culturally diverse countries and so there is the need for NDrive to adapt to different contexts. Moreover, there is a need for a specific fit within electronic and IT environment. *"The success of the internationalization of our business depends greatly on the ability to develop networks with local contacts* "explains Luis Baptista Coelho adding *"do not have preconceived ideas when arriving to a new market."*[27]

Finally, the domestic market is where the international strategic plan has been defined. The headquarters of the company are based in Oporto city where top level management is placed. The other offices has completely different strategic guidelines but well defined by top level management.

Europe market penetration

From the beginning, Europe was not seen as a unique strategic region due to its different market behavior patterns. In particular East and Central Europe are a very fragmented market having Croatia with a very mature market while in Serbia the demand for PNDs is still very high.

Spain was the first country where company began its internationalization because of both geographical and cultural proximity reasons. In the beginning, with hardware business it even had a local company to distribute their hardware equipment. Moreover, Scandinavian

[26] Term used in software industry to describe a technology reseller that doesn't add any value to the product
[27] AICEP, Portugal Global, 2011. Available at: http://www.portugalglobal.pt/PT/PortugalNews/Documents/Revistas_PDFs/Portugalglobal_n36.pdf [Accessed 23 December 2012]

countries always represented very mature markets being very demanding in terms of quality and so.

From 2011, Europe market is becoming very mature in mobile segment and more specifically in application market. As a consequence freemium segment has become a prevalent market tendency. In this regard, France represents a very important market to NDrive having a crucial partnership with the third largest distributor in the country, Mappy. Luis Baptista Coelho added *"This app combines a very powerful and trusted local brand in the name of Mappy, an innovative business model brought by PagesJaunes, and our advanced mobile navigation software"*[28]. This innovative model of PagesJaunes[29] represented access to a directory of thousands of entrances meaning thousands of points of interest available to the consumer. Within ten hours, Mappy GPS Free reached top three in the apps stores (see **EXHIBT 12**).

Shortly after, Turkey became also another great case of success having a strong presence with a partnership with Piranha that uses NDrive software incorporated in its products. One of the main projects was the integration of NDrive software on PND and mobile devices in the country. Piranha launched its first GPS for PNDs in 2009 and has claimed local brand leadership ever since.

Success in South America

South America has been seen as a unique strategic region and it has been the strongest region in company´s portfolio. Initially, NDrive chose Brazil as the first market to be explored selling both hardware and software with 60% of market share. There were main reasons to expand to South America and in special Brazil including market size and perspectives of growth in relevant indicators (see **EXHIBIT 13, 14 and 15**).

After some obstacles trying to get into Brazil, the company was very successful in penetrating in this market. That happened mainly due to low mapping quality of the country and the difficulty of finding and managing trustful partners. NDrive received an important order from a large fast moving consumer goods company not only in terms of volume but

[28] NDrive website, Press releases December 19th, 2011. Available at: http://ndrive.com/sites/default/files/press_release/NDrive_Mappy.pdf [Accessed 23 December 2012]
[29] A volume or section of a telephone directory that lists businesses, services, or products alphabetically according to field

also because gained a relevant visibility in the market. Due to this exposure, NDrive made later a strategic partnership with Pão de Açucar, an important retail company, which had important market scope becoming number one in terms of product sales in Brazil.

Other important partnership was with VIVO, a big telecom in Brazil, which worked similar as the partnership with PT in which the *look and feel* of the product was changed according to Vivo´s brand. NDrive made other important partnerships using more local brands as hardware distributors such as Discovery[30] to better exploit the market. Using a local brand or OEM[31] is often more effective in terms of market penetration. The company continued its expansion in Brazilian market and by 2012 NDrive was market leader having between 40% and 50% of market share.

After its success in Brazil, NDrive wanted to extend its position to other countries in South America. Therefore, the company made a crucial partnership with HTC[32] which consisted on selling 20 000 licenses to telecommunications operators in Latin America. The Commercial Director at that time noted "*this project is the result of excellent penetration NDrive System in Brazil, a market where we have been adapting the product to local needs since June last year. Brazil is a huge potential market, with growth rates of over 100% per year, and provides a unique platform for expansion into Latin America*, "[33].

Although the great success in Brazil helped the company expansion to neighbor countries namely Argentina and Chile, the commercialization process differed greatly from that used in Brazil. The company chose in each country an official brand distributor that represented the brand in that region under NDrive supervision. Each business decision needed to pass through the official brand distributor such as for example selling licenses. The company made contracts 2 or 3 years long with local distributors that committed themselves to buy a certain level of licenses per year. This commercialization model is being very effective in these countries. By the end of 2012, the company is gathering efforts to enter also into Colombian market.

[30] From Discovery Channel
[31] Original equipment manufacturer: manufactures products or components that are purchased by another company and retailed under that purchasing company's brand name
[32] Taiwanese manufacturer of smartphones and tablets
[33] *Auto Hoje*, 2008. Available at: http://forum.autohoje.com/showthread.php?t=56331 [Accessed 23 December 2012]

Heading to Silicon Valley

NDrive decided to enter in North America market because it is a very mature market in relation to mobile applications with a great level of population purchasing power (**EXHIBIT 16**). Being present in this region even if in a small scale represents great volume of sales since per day billions of applications are downloaded. The requirement for high quality products is very high as the market requirement of having TTS[34] technology (text to speech) included on navigation software or using internet instead of satellite communication to have access to navigation maps requiring companies´ investment to acquire that technology in order to find partners or local distributors.

"The U.S. and Silicon Valley in particular, is the culmination of a very important step for NDrive. That's where everything happens in our market, that's where all the big companies of our universe of business are, and that is why we want to be locally present "[35]said Luis Baptista Coelho. In that sense, the company tried alliances with local distributors selling its software but the sales registered were not significant. Therefore, NDrive is now just concentrated in North American apps market launching Nlife product in the end of 2012. Moreover, the company explores the best practices of Latin America markets as a flag for networking with other companies in Silicon Valley.

As mentioned, in 2011, NDrive decided to be part of the unique business center: Silicon Valley where Luís Baptista Coelho, CEO, has moved to. NDrive office is located on Plug & Play Technology Center in Sunnyvale chosen for being a community of over 300 startups from all parts over the world. A member of the Plug and Play corporate team stated: "*We are delighted to have NDrive as part of the plug and play community and look forward to helping accelerate their success*."[36] The company hopes to get closer to large venture capital firms as well as being a player is this tough market but so rewarding in terms of size and opportunities. NDrive expects also to enjoy positively from Silicon Valley´s culture. In the end of 2012 the company is testing freemium model in Canada and within two years, the

[34] Technology that for example instead of saying in "In 500 meters, turn right" say "In 500 meters, turn right on High Street"
[35] AIECEP, Portugal Global, 2011. Available at: http://www.portugalglobal.pt/PT/PortugalNews/Documents/Revistas_PDFs/Portugalglobal_n36.pdf [Accessed 23 December 2012]
[36] NDrive website: http://www.ndrive.com/news/new-horizons-silicon-valley-ca [Accessed 23 December 2012]

company would like to invest again on business to business segment in E.U.A. with a more developed and competitive product.

Questions

1- Analyse Ndrive sources of competitive advantage.

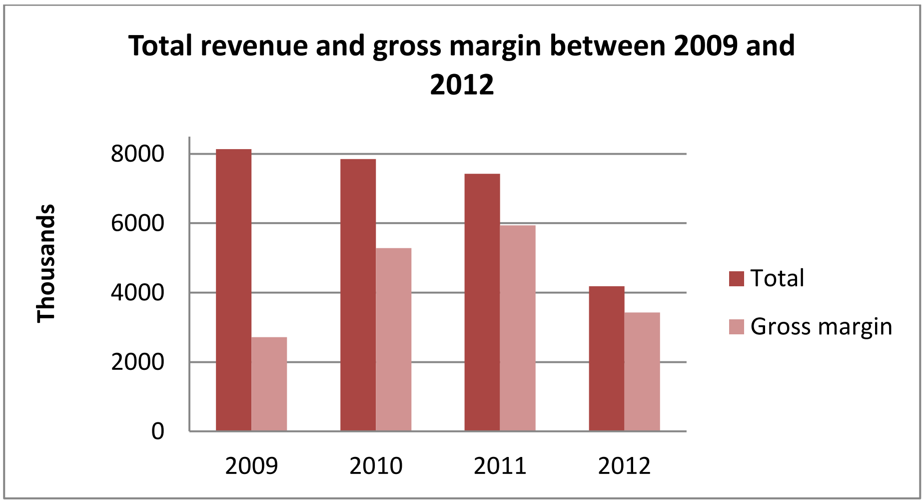
2- Refer the importance of partnerships in the internationalization process of NDrive. What about the role of appstores?

3- Analyse key strategies the company uses in its internationalization strategy. (*Suggestion: Use Diamond strategy framework*)

4- What managerial challenges will NDrive face as it grows?

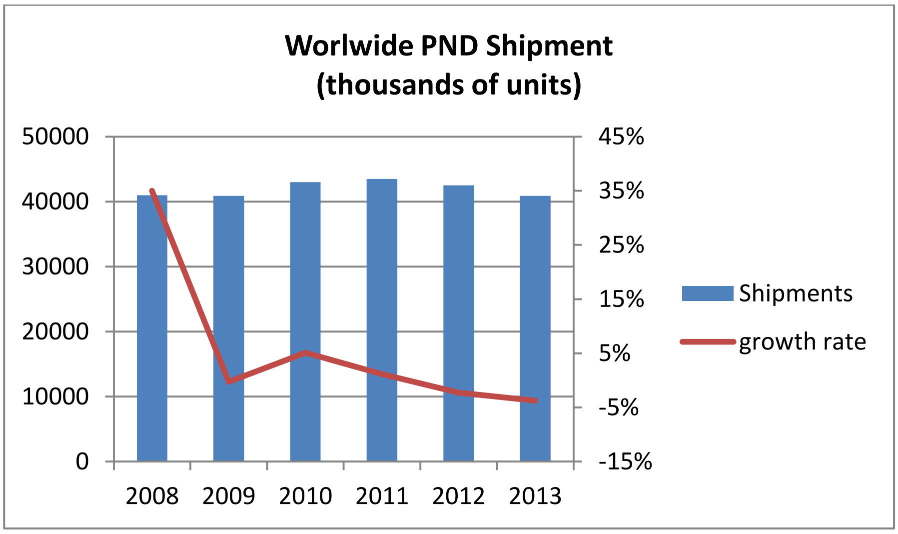
5- In what way you consider NDrive as a born global firm.

EXHIBIT 3



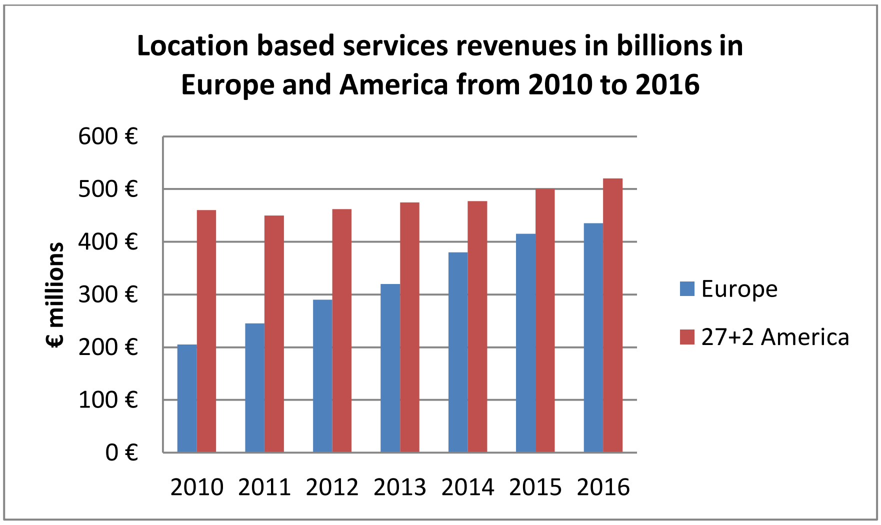
Source: Information provided by the company

EXHIBIT 4



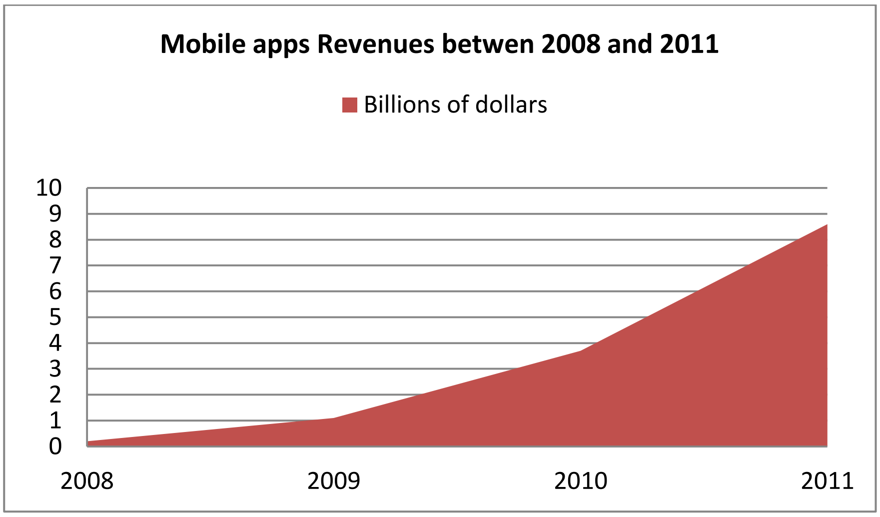
Source: IHS iSuppli's market intelligence GPS PND Supply Chain Enters Period of Fierce Competition October 12, 2009 Available at: http://www.isuppli.com/Manufacturing-and-Pricing/MarketWatch/Pages/GPS-PND-Supply-Chain-Enters-Period-of-Fierce-Competition.aspx [Accessed 4 January 2013]

EXHIBIT 5



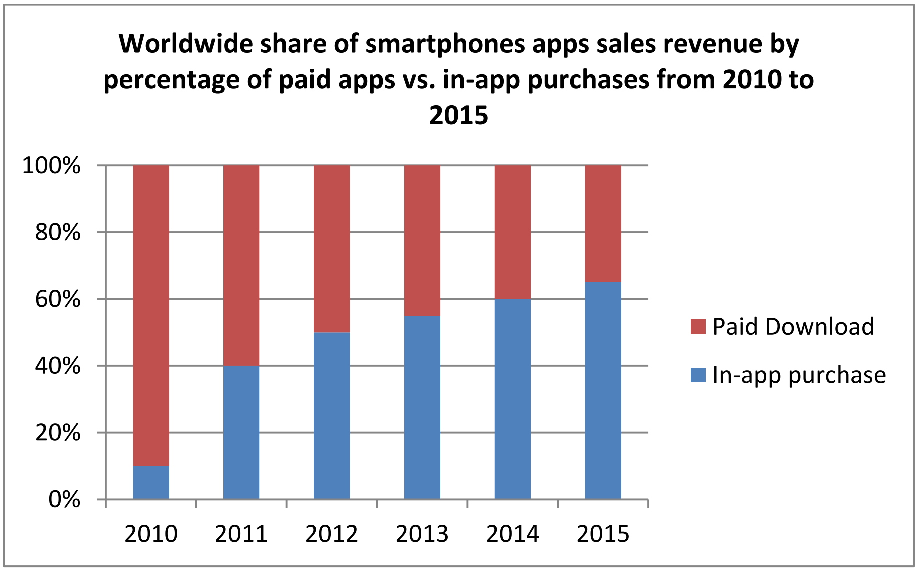
Source: Berg Insight's LBS Research Series
Available at: http://www.berginsight.com/ReportPDF/ProductSheet/bi-lbs6-ps.pdf [Accessed 4 January 2013]

EXHIBIT 6



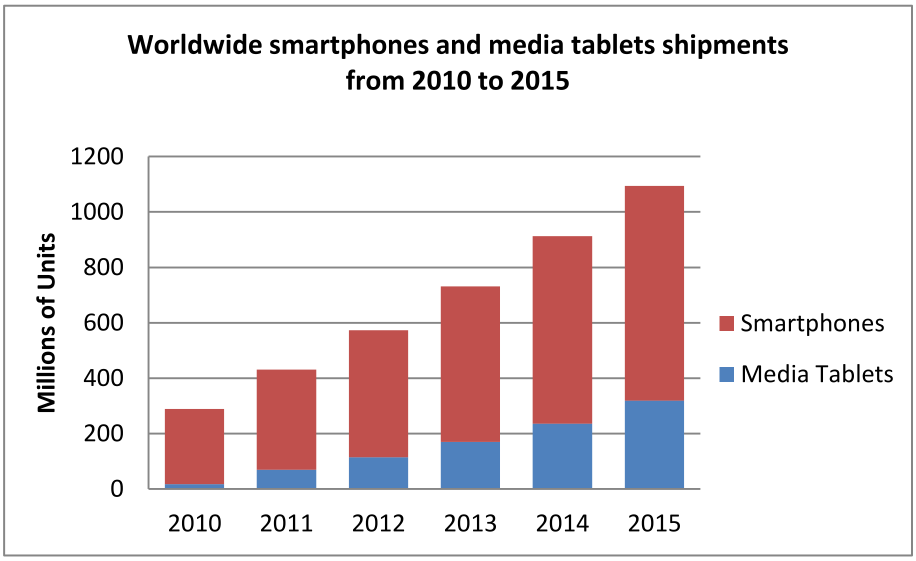
Source: BI Intelligence estimates

EXHIBIT 7



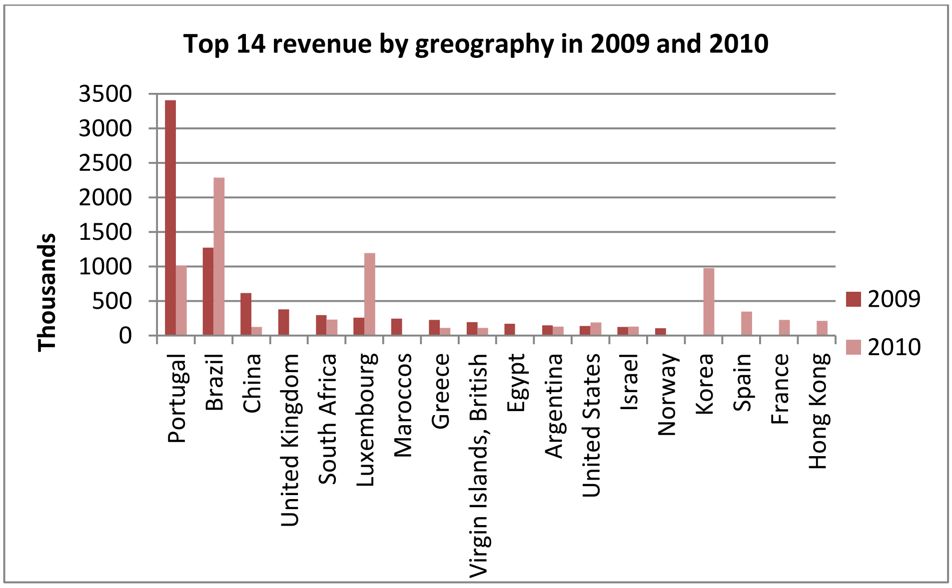
Source: HIS Screen Digest January 2012

EXHIBIT 8



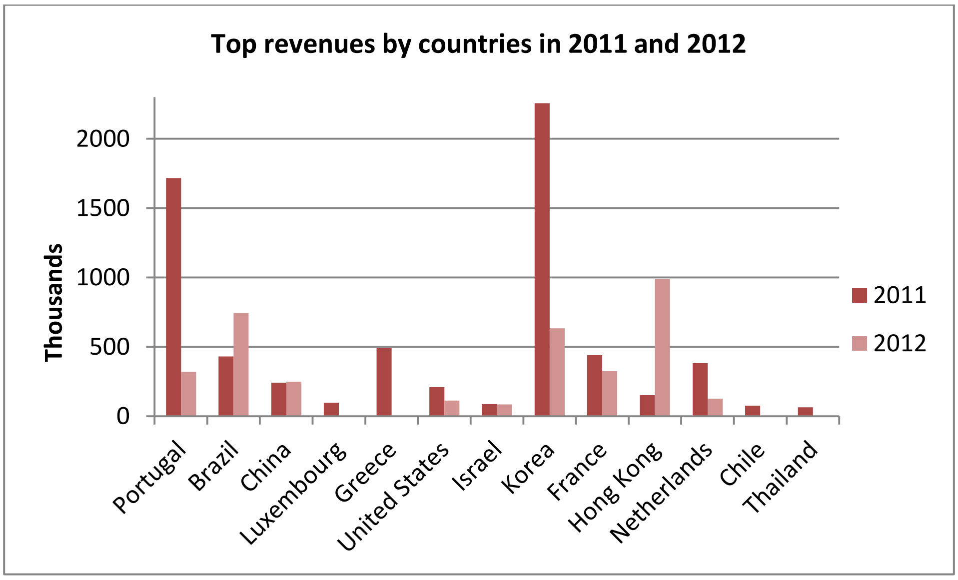
Source: Emerging Technology Analysis: Mobile Business Intelligence, 13 July 2011, (ID: G00214124 by Bhavish Sood, Andreas Bitterer, James Richardson.)

EXHIBIT 9



Source: Information provided by the company

EXHIBIT 10



Source: Information provided by the company

Note: All revenues that come from Apple store are accounted in Netherlands as the client is Apple Netherlands

EXHIBIT 11

Managing Partner
Diligence Capital
September 2006 – Present (6 years 5 months)
Recommend João's work at Diligence Capital

Executive Chairman
NMusic
January 2010 – Present (3 years 1 month) | Lisbon Area, Portugal
Recommend João's work at NMusic

Chairman and President
NDrive
Privately Held; 51-200 employees; Computer Software Industry
July 2007 – Present (5 years 7 months) | Porto Area, Portugal
Recommend João's work at NDrive

Extended Board Member
PATHENA SGPS SA
Privately Held; 1-10 employees; Venture Capital & Private Equity Industry
October 2010 – Present (2 years 4 months) | Porto Area, Portugal
Recommend João's work at PATHENA SGPS SA

Board Member
QUiiQ
July 2010 – Present (2 years 7 months) | Porto
Recommend João's work at QUiiQ

Board Member
BioDevices
January 2007 – June 2012 (5 years 6 months)
Recommend João's work at BioDevices

President
Autonomia
January 2007 – June 2012 (5 years 6 months)
Recommend João's work at Autonomia

Owner and President
Infoportugal
June 2006 – March 2010 (3 years 10 months) | Porto
Recommend João's work at Infoportugal

Board Member
Novabase SGPS
Privately Held; 1001-5000 employees; Information Technology and Services Industry
November 1997 – April 2006 (8 years 6 months)
Recommend João's work at Novabase SGPS

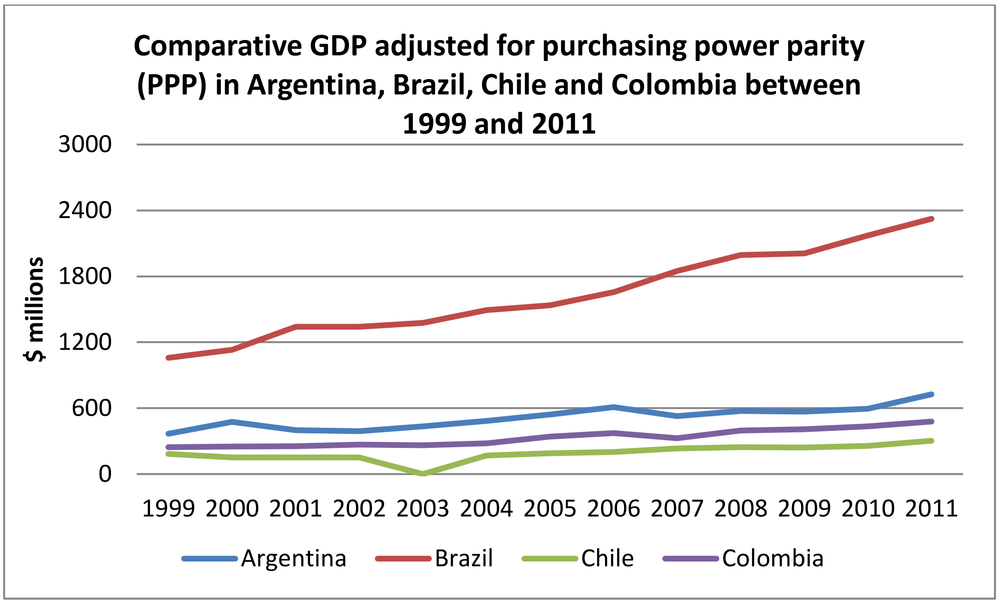
IT Researcher
INESC Porto
Nonprofit; 201-500 employees; Research Industry
September 1987 – September 1997 (10 years 1 month)
Recommend João's work at INESC Porto

Source: LinkedIn

EXHIBIT 12

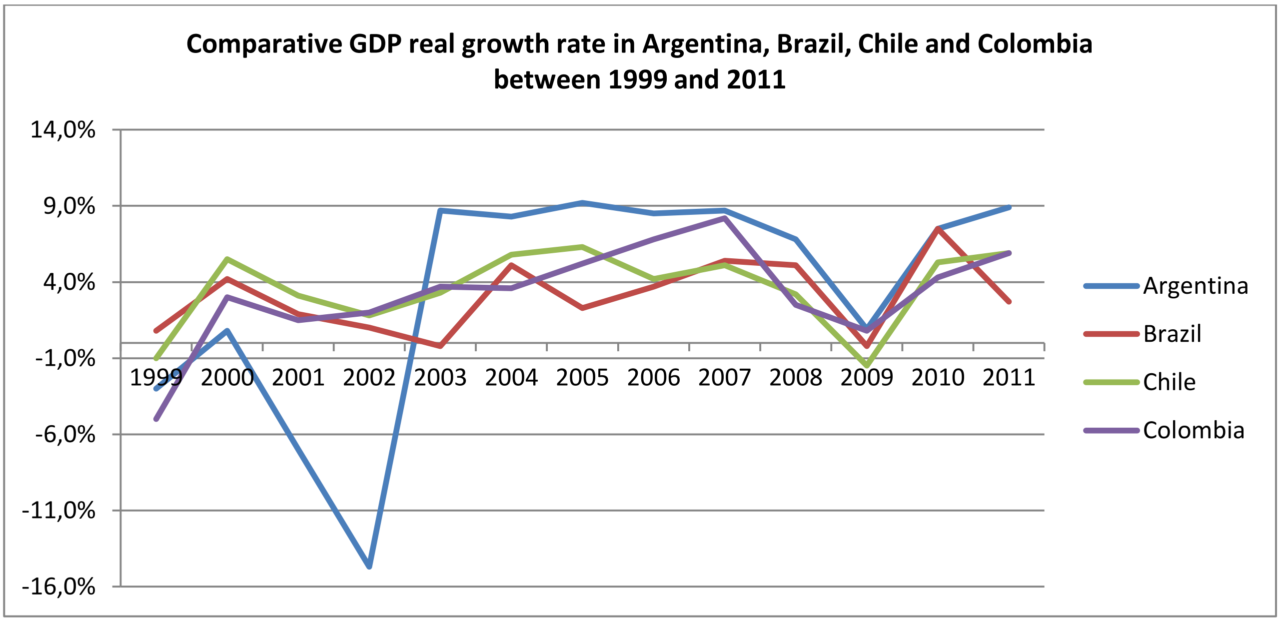
Source: Information provided by the company

EXHIBIT 13



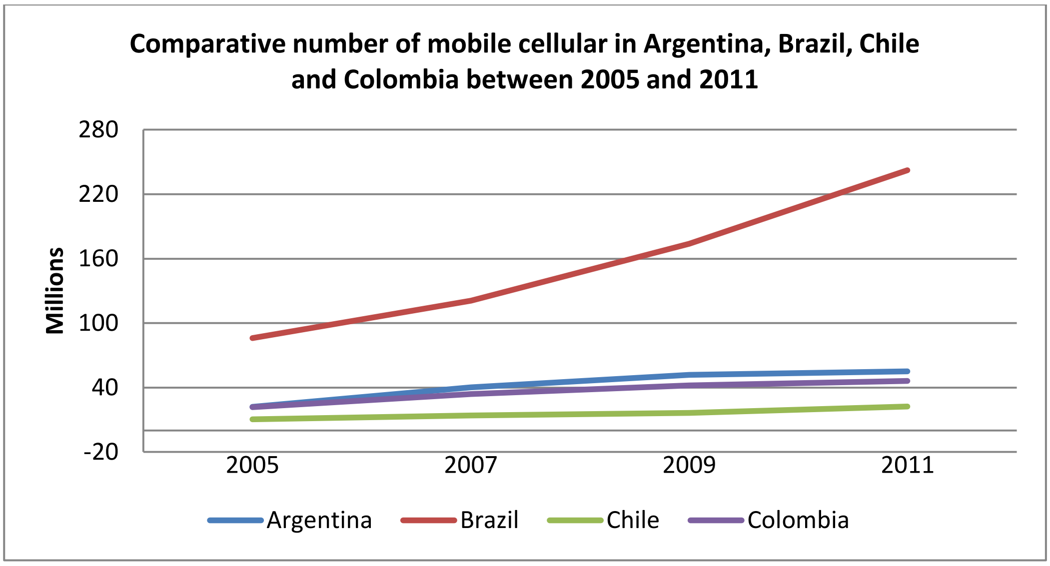
Source: CIA World Factbook 2011

EXHIBIT 14



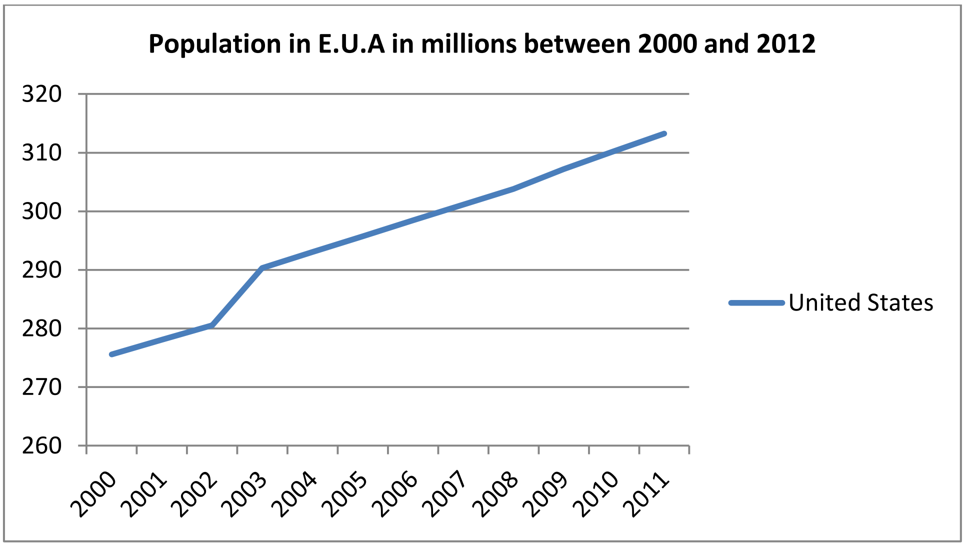
Source: CIA World Factbook 2011

EXHIBIT 15



Source: CIA World Factbook 2011

EXHIBIT 16



Source: CIA World Factbook 2011

Teaching notes

Synopsis

The phenomenon of born-global firms is explained by new small firms mostly high-tech that internationalize rapidly at early stages of their development, even while quite small and unknown at home. For these entrepreneurial firms, waiting to get international experience and expertise to explore international markets is not an option, leveraging international strategy to a more relevant factor to the corporate strategy.

NDrive is used as a metaphor to exemplify this phenomenon. It is a Portuguese company created in 2007 after the spin off with InfoPortugal. At that time, the company produced navigation hardware and software exporting its PND mainly to Spain and Brazil. However, in 2009, the company refocused its business model developing only navigation software mainly to mobile platforms. The company is known for its innovative products and features as well as its business model flexibility.

It´s part of a very competitive industry in a very demanding market. Moreover, being a tech company it needs to anticipate market constant changes in order to survive. It´s way of approaching the market in terms of commercialization differ from competitors as Tom-tom that tries to control both ends of the value chain. NDrive uses partnerships with different players to leverage its international position. However, its most relevant alliances which differentiate the company are with large and local distributors as in the form of mobile operators, mapping providers or mobile manufactures or local brands.

Internationalization was from the begging a corporate strategy for NDrive. By 2012, NDrive used very different internationalization strategies to coordinate its activities in the variety of markets it is present. NDrive stronger markets are South America in Brazil and Europe in France and Turkey. In the end of 2012, the challenges are mainly entering in Columbia market and having a stronger presence in North America. Its recent presence in Silicon Valley hopes to be a good platform for the company to accelerate its growth.

Teaching Objectives

This case study has seven teaching objectives as helping students to:

- Apply relevant strategic management framework in a real-life business case
- Analyze case information as well as use exhibits to support answers when convenient
- Identify competitive advantage of the company
- Analyze strategic choices of the company in terms of coordination and concentration of international activities
- Comment different modes of enter in different markets
- Understand how companies activities are aligned with the economic logic of its internationalization process
- Comment next challenges of the company both in terms of business model as in terms of market expansion
- Be able to explore born global firm relevant theory (Part I) in the case of NDrive

Uses of the case

The purpose of the case is to be used as a teaching case in a class context both in Undergraduate and Master´s level. The case can be used in strategic management related courses with emphasis to those more oriented to explore internationalization strategies. As well as, it also can fit into innovation and technology related courses.

This case study approaches the company coordination and concentration of activities in its internationalization expansion. Before the actual case study, it is included a literature review part that includes theory related to the way born global firms acts. In that sense, the purpose of this literature review is relating this topic with NDrive case in order for the reader to be able to explore not only international and general strategic management theory but also relevant theory about born global firms.

Relevant Theory

Although most information lies on the case study, there is some relevant theory to approach when discussing the five questions mentioned in the end of the case study. More specifically in terms of internationalization strategy and in questions 1, 3 and 5 it is recommended to read and understand:

Internationalization strategy:

- Carpenter, M.A. & Sanders W.G., 2009, *Strategic Management: A Dynamic Perspective*, 2nd Edition, Prentice-Hall, NJ.
- Freire, A., 2008, *Estratégia - Sucesso Em Portugal*, 12th edition, Verbo.

Question 1:

- Besanko, D., Dranove, D., Shanley, M. & Schaefer, S., 1996, *Economics of Strategy*, 6th Edition, John Wiley and Sons, New York.
- António, N. & Cardeal, N., 2012, ´Valuable, rare, inimitable resources and organization (VRIO) resources or valuable, rare, inimitable resources (VRI) capabilities: What leads to competitive advantage?´, *African Journal of Business Management,* 6(37).
- Barney J.B., 1991, ´Firm resources and sustained competitive advantage´, *J. Manage,* 17(1): 99-120.
- Kay N., 2010, ´Dynamic capabilities as context: the role of decision, system and structure´, *Ind. Corp Change,* 19(4): 1205-1223.
- Barney J.B. & Wright 1998, ´On becoming a strategic partner: The role of human resources in gaining competitive advantage´. *Hum. Resour. Manage*, 37(1):31-46.

Question 3:

- Hambrick, D. & Fredrickson, J. 2001, ´ Are you sure you have strategy?´, *Academy of management,* pp. 48-59.

Question 5:

Literature review (**Part I**)

- McKinsey & Company 1993, ´Emerging Exporters: Australia’s High Value-Added Manufacturing Exporters´, Melbourne: Australian Manufacturing Council.

- Madsen, T. K. & Servais P. 1997, ´The Internationalization of Born Globals: an Evolutionary Process?´ *International Business Review*, 6, (6), 561-583.
- Dimitratos, P. & Plakoyiannaki, E. 2003, ´Theoretical Foundations of an International Entrepreneurial Culture*´, Journal of International Entrepreneurship*, 1 (2), 187–215
- Freeman, S. Hutchings, K. & Chetty, S. 2012, ´Born-globals and Culturally Proximate Markets´, *Management International Review,* Vol. 52, No. 3, pp. 425-460.
- Oviatt, B. M. & McDougall, P. P. 1994, ´Towards a Theory of International New Ventures*,´ Journal of International Business Studies,* 25 (1), pp. 45–64.
- ——— and ——— (1995), ´Global Start-Ups: Entrepreneurs on a Worldwide Stage´, *Academy of Management Executive*, 9 (2), pp. 30–43.
- Chetty, S. K. & Campbell-Hunt, C. 2004, ´Paths to Internationalisation Among Small to Medium-Sized Firms: A Global Versus Regional Approach,´ *European Journal of Marketing*, 37 (5–6), pp. 796–820.
- Majkard, A. & Sharma, D. D. 1998, ´Client-following and market seeking strategies in the internationalisation of service firms´, *Journal of Business-to Business Marketing, 4*(3),pp. 1–41.
- Chetty, S. K. & Campbell-Hunt, C. 2004, ´A Strategic Approach to Internationalization: a Traditional Versus a 'Born Global' Approach´, *Journal of International Marketing,* 12 (1), pp. 57-81.
- Freeman, S. Edwards, R. & Schroder, B. 2006 'How Smaller Born-global Firms Use Networks and Alliances to Overcome Constraints to Rapid Internationalization', *Journal of International Marketing,* Vol. 14, No. 3, pp. 33-63.
- Bell, J. McNaughton, R. Young, S. & Crick D. 2003, ´Towards an Integrative Model of Small Firm Internationalisation,´ *Journal of International Entrepreneurship´*, 1 (4), pp. 339–62.
- Caloghirou, Y. Protogerou, A. Spanos, Y. & Papagiannakis, L. 2004, ´Industry Versus Firm-Specific Effects on Performance: Contrasting SMEs and Large-Sized Firms,´ *European Management Journal*, vol.22, no.2, pp. 231–43.
- Karlsen, T. Silseth, P. R. Benito, G. & Welch, L. 2003, ´Knowledge, Internationalization of the Firm, and Inward-Outward Connections,´ *Industrial Marketing Management*, vol.32, no. 5, pp. 385–96.

Process of analysis

The teacher can ask the students to read in advance the literature review as well as the actual case study. In the beginning of the class, the teacher can divide the students in pairs for them to discuss the case and the questions in 15 minutes. This will allow students to develop their interpretation of the case and get direct feedback from colleagues. Later on, teacher can go through each question trying to get most participation and interaction from the class. The total process of the case analysis would be 80 minutes long. The objective would be leaving:

- 15 minutes to discuss in pairs the answer to the case study questions
- 60 minutes to discuss with the teacher the analysis of the case questions:

Discussion question # 1: 10 minutes
Discussion question # 2: 10 minutes
Discussion question # 3: 15 minutes
Discussion question # 4: 10 minutes
Discussion question # 5: 15 minutes

- 5 minutes for general considerations of the case in the context of the course

Analysis and Discussion

In the end of the case study, there is a suggestion of possible questions that the teacher can use in the class to open up the discussion about the case. In this section, it will be pointed out the most important topics to be discussed in each question.

1 - Analyze NDrive sources of competitive advantage (10 minutes)

In this particular section, it is supposed that students understand the topic of competitive advantage realizing the sources of competitive advantage in the case of NDrive.

It is adopted the **definition** of competitive advantage as creating more economic value than a marginal competitor that achieves only break-even (Peteraf & Barney 2003).

Moreover, delivering more value than competitors will get firms an advantaged position in the marketplace (Besanko et al. 1996).

There are two different ways how companies can differentiate themselves by costs or benefit. NDrive strategy is adding benefits to the products with a broad focus since its target market is very wide.

In Dynamic Capabilities perspective, and in contrast with the Resource Based View, the sources of competitive advantage lie with greater emphasis on capabilities than on resources. It is important not only to have meaningful resources but also the process of integration and the use of these resources (Barney & Wright 1998; Newbert 2008). In that sense, in **FIGURE 1**, it is identified and later analysed NDrive resources and consequent capabilities.

FIGURE 1

Resource	Capability
Partnerships with universities and research centres R&D team	Technological Innovation
Focus on key activities of the value chain	Business Model flexibility
Experienced management team Partnerships with local companies	Fast market responsiveness

These capabilities represent company's sources of competitive advantage. Firstly, the company invest on technological innovation to leverage the products and service that offers. However, it is not just about the products and services but the business model used allows it to be more flexible than competitors. The business model of NDrive differed from direct competitors as Tom-tom and Garmin mainly in terms of commercialization strategy. While Tom- Tom tries to control most parts of the value chain and uses its brand awareness as a core asset, NDrive makes partnerships with big players that usually sells its products under their own brands as, for example, in case of TMN Drive. Showing such flexibility, NDrive gains many opportunities that competitors as Tom-Tom and Garmin cannot exploit for strategic considerations.

Finally, NDrive commit itself to adapt to the market being very fast in terms of market responsiveness. In this sense, the company uses both its young and versatile team with a very experienced top management (see EXHIBIT 11) and its partnerships with local and more market experienced companies. The great flexibility and speed of adaptation in the various markets have been a good way to turn the company more competitive contributing to be more visible and interesting to be chosen by important players.

2 - Refer the role of partnerships in the internationalization model of NDrive. What about the role of apps stores? (10 minutes)

In this section, the objective is helping students to understand the importance of partnerships and apps stores in company´s internationalization strategy based on the information from the case study. With regard to partnerships, it is important to understand which ones referred in the case study are indeed most important for companies' business model and its main purpose. On the other hand, and relation to the role of apps stores, teachers can highlight the opportunity given from those stores to a company such as NDrive.

Strategic alliances and partnerships are used as a common market entry vehicle mainly due to lack of familiarity with the local culture of management or due to operational complexity to refocus on core activities. In the case of NDrive, both reasons are intrinsic in its decisions to make alliances since almost the start of its internationalization process. NDrive use many value chain players to do these partnerships as universities, maps providers between others but in fact, in terms of differentiation strategy, the most relevant ones are the ones company used as distribution channels. Indeed, it used many different types of companies to enter in a country and distribute its products as we can see in **FIGURE 2**.

FIGURE 2 – Description of NDrive Partnerships

Type	Example	Activity	Purpose
Mobile Operators	TMN with TMN Drive	Licensing software	Enlarge customer base
Local distributors	Discover in Brazil	Licensing software	Taking advantage of a market opportunity Local expertise
Manufactures	Samsung	Licensing software	Further expand international presence due to partner global presence
Mapping providers	NAVTEQ	Content provider	Provide a premium product Local expertise

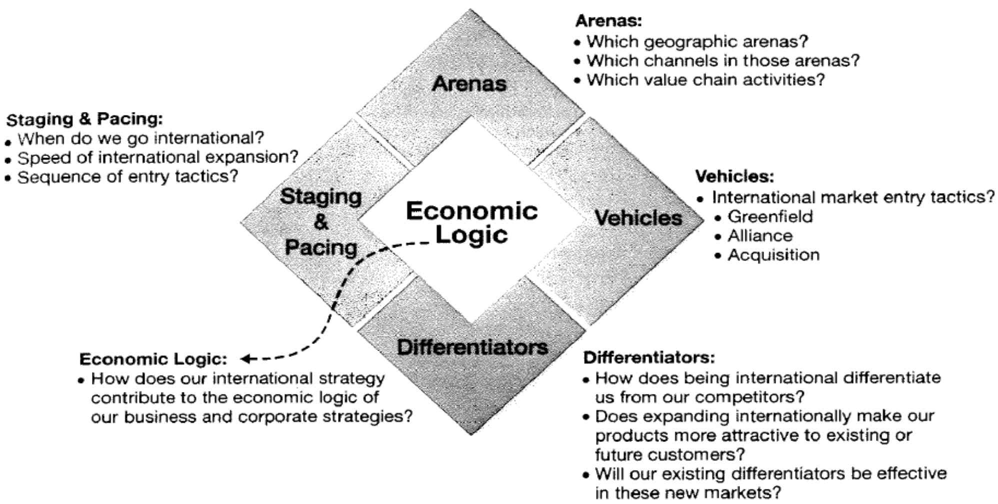
NDrive has made partnerships with different kinds of companies to leverage its international exposure. In terms of usage of local distributors versus developing partnerships with Telco's and others depends on the stage of market development. Using local distributors to buy their software to incorporate on hardware equipment is just taking advantage of a **business opportunity** as the market still consumes PNDs. On the other hand, developing partnerships with Mobile Operators in markets that are more open to mobile applications is a great part of company´s strategy. It is possible that the company combines the two types of entrance as in Brazil (partnership with VIVO and Discover). In that sense, the **maturity of the market** is essential to understand company strategic choices in relation to partners. As a conclusion, it is important to understand that NDrive uses these alliances as a competitive advantage. Over time, it has gained many business opportunities with these crucial partners when showing its business flexibility. These partnerships give the company access to a large customer base as well as access to international and market expertise.

Apps stores had also a very important role in NDrive expansion. This way of selling its products, through nonphysical stores, is a crucial opportunity to get access to a larger base of customers spending few resources. From the begging, the company understood the potential of apps stores being one of the first to offer its products through this channel. Therefore, NDrive products are available in any part of the world through download of its software having access to millions of potential users. It is important to refer as well the intense competition on this channel where it is necessary to follow as much as possible market trends which are constantly changing to remain as a valuable player.

3 - Analyze on the different key international strategies used by NDrive (15 minutes).

In this section, it is important to understand how NDrive coordinate all its activities and how that is aligned with the economic logic of its internationalization strategy. In that sense, it is suggested the use of strategy diamond introduced by professors Don Hambrick and Jim Fredrickson[37] in 2001. It is a framework for strategy design, arguing that a strategy has five elements as seen in **FIGURE 3**.

FIGURE 3- Strategy Diamond



Analysis of the strategy diamond in the case of NDrive:

Arena

In terms of geographic areas, NDrive are spread in the world licensing its software. In the begging of the process, NDrive has focused its efforts in developing countries as South America as well as trying to penetrate in more mature markets as Europe in which customers are more aware of more advanced technologies. The purpose was also finding places where they could have advantage mainly commercial advantage over competitors due to its business flexibility. In 2012, South America and Europe were the strongest markets in sales volume. Other countries were being explored as more developing ones with good growth prospects as South Africa and Morocco as well as more developed in technological usage as India or Australia.

[37] Hambrick, D & Fredrickson J. 2001. Are you sure you have strategy? *Academy of management,* pp. 48-59

The channels used in these different markets varied considerably. While in developing countries the company developed important partnerships with local distributors as in Argentina and Chile, in more developed countries the company tried to make partnerships with Telco's and smartphones manufactures to leverage its position (example of PT in Portugal). Other important channel used was apps store as a way to reach a larger base of customers. In that sense, the company tries to focus its efforts in the development of premium navigation software and finding the right partner to strengthen its international position.

Finally, the process of learning from past experiences and the importance given to local adaptation mainly in terms of partners determine company´s way of expansion.

Vehicles

NDrive uses many different companies as a way of entering in a new market doing important partnerships. It can be a Telco, maps providers, local distributors, or just simply a simple box mover depending on the stage of market development as well as the business opportunities that arise. Licensing to local distributors of hardware or box movers are just a way to cope with business opportunity since the market still consumes PNDs. On the other hand, making partnerships to develop mobile navigation application are a company strategic orientation where market is sufficient developed.

The company uses contractual agreements relying on others to manage its international presence. In the case of NDrive, these agreements take the form of licensing its products which means its software. In that sense, the company licenses its products being the quickest way of entering overseas markets and clearly a method that involves little expense, and avoids all distribution costs and low financial risk. NDrive transfers the risks of the actually implementation the product in the market to the licensee. The main risk for the company is that licensee will violate contract agreement not paying the agreed-upon fees losing ownership control.

Other important dimension to have in consideration is the use of client followership to enter into new markets. This allows the company, from the start, enters in a market with a partner that it already has worked with. As well the China office is very important in strategic consideration since it is a way to make lobbies with hardware manufactures in order to make important deals to sell the software to different clients. It is very important to be coherent with company strategy in company´s entry tactics.

Differentiators

The business model used in NDrive internationalization process is itself a differentiator. Presenting a business model so flexible provides its products with good level of attractiveness for costumers in this case its partners gaining many business opportunities. Aligned with this idea, the ability of adaptation to different market needs and different partner combined with offering a reliable premium product also differentiates NDrive in the marketplace.

Staging and pacing

From the foundation of the company, the idea of internationalization was designed starting with Spain market. Along its five years, the pace of internationalization was fast achieving 70 countries of market coverage by 2012. The company expanded first to Spain and Brazil with support of local distributors to sells its hardware and software businesses. By 2009, the company started to use apps stores and partnerships to sell and license its products. Market influence was important in terms of pacing since some countries served as a doorway to other countries with the example of Brazil to other South American countries.

Economic Logic

Finally, a successful strategy has a central economic logic that serves as the fulcrum for profit creation. In the case of NDrive, the economic logic is being able to grow at a fast pace while at the same time expanding customer and gaining international expertise to increase company´s presence in the world. It is important to refer the importance of economies of scale and scope with higher R&D costs that seek for higher revenue based mostly on foreign markets. NDrive amortize its fixed costs though presence in many markets lowering its average cost per sale.

4 - What managerial challenges will NDrive face as it grows? (10 minutes)

In this section is important to relate how NDrive had been facing the challenges until the end of 2012. The company refocused its model in 2009 investing in software rather than in hardware since it understood that the future would be for mobile platforms rather than PND. Indeed, looking at EXHIBIT 1, it is possible to realize that the PND market is very significant but in terms of growth of demand is decreasing. Application market is growing exponentially since 2008 looking to EXHIBIT 3 and the company gained dimension giving relevance to these market corresponding to 60% in terms of market segmentation by the end of 2012. In that sense, its behavior has been **proactive to anticipate market changes**.

The navigation applications are seen as a commodity rather than a sexy application which consumers are not willing to pay for and, as a consequence, all related industry needed to understand how to cope with this reality and the company has gathered efforts to overcome this challenge. In 2012, the company leaders realized the important of freemium model reinforcing its position especially in what concerns revenue sources. Therefore, the company is greatly invested in taking advantage of publicity and added premium features as sources of revenue. Being one of the first to enter in apps stores and later to introduced a freemium model, it is taking the first mover advantage over competitors mainly Tom-Tom.

In terms of **next challenges,** the company will have to face freemium model challenges in terms of revenue source base with 60% of downloaded applications being in-app by 2015 (EXHIBIT 4). The company will try to continue pursuing partnerships that allows taking advantage to the freemium model as already did with PT in Portugal and Mappy in France in other mature countries. Advertising as a revenue source has been growing but slowly and there is limitation in terms of user privacy and problems in pricing location data. The company will continue to offer innovative premium location based offers as social networking sharing or weather information.

In terms of markets expansion, the penetration in North American market will be difficult since the consumers are very demanding and the competition very fierce. It is important in this matter highlight the importance of networking in Silicon Valley. Meanwhile, the company is expected to enter in Colombia next year using local distributors as in Argentina and Chile with local distributors.

5 - In what way you consider NDrive as a born global firm (15 minutes)

In this section is relevant to look back for born global firm's theory (Part I) in order to relate with the case of NDrive. In this matter, it will be only commented the common characteristic of born-global firms reflected in NDrive's case (see **FIGURE 4**).

FIGURE 4 – Characteristics of born global firms with evidence in NDrive

Characteristics of born global	Evidence in NDrive case	See in detail
Get international exposure from the start	On the genesis of NDrive creation was the project to internationalize. As CEO commented *"It is important to be where the market opportunities are. Technology has no passport."*	PART I- page 1 PART II - Page 18
Importance of organizational culture as proactivity, risk taking and innovation	NDrive behaviour in terms of markets expansion and the way it approaches market changes	PART I- page 1 PART II- page 17
Importance of choosing first culturally proximate markets	It started to internationalize first to Spain and then to Brazil	PART I- page 2 PART II- page 18
Previous international network of top management	João Neto (President of the company) curriculum	PART I- page 2 PART II - EXIBIT 11
Importance of networking to leverage international expansion	international congresses and fairs, China office and more recently the opportunity in Silicon Valley;	PART I – page 2 PART II – page 12; 19; 22
Proactive vs. reactive behavior	The company behavior is risk taking in terms of market expansion but is reactive on relying in safer entry modes as client followership or official brand distributors	PART I - Page 4 PART II – 19; 21
International vs. technological knowledge	The company rely more on its Use Technical expertise as a trade to build important partnerships with more international experience companies (as LG or Samsung)	PART I- page 4 PART II- page 11
Presence in key culturally proximate countries to support credibility in culturally non proximate markets	Example of Brazil in South America	PART I – page 4 PART II- page 21
international strategy as a source of competitive advantage	It used international presence and flexible business model to compete in the marketplace	PART I- page 4/5
Importance of strategic alliances to expand internationally	Example of Samsung	PART I- page 5 PART II – page 11
Use client followership as a entry mode		PART I - page 5 PART II - page 11
Pressure of establishing certain revenue stream	Fast growth in 2010 with LG partnership increased pressure to meet certain level of revenue	PART I- page 2 PART II – page 13

It is also relevant to mention the five strategies used by born global to overcome its challenges and interrelate that with the case of the company (EXHIBIT 2 and 3). In that sense, it is possible to realize that NDrive uses all of the five strategies in its own international strategy as:

Personal networks, collaborative partnerships, client followership, use of advanced technology and multiple entry modes.