

Product Innovation Strategies on Emerging Markets: Bringing Theory and Practice Together

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Abstract

Emerging economies present the largest growth in the world, and thus tremendous growth opportunities. Developing products for emerging markets proves to be a difficult task requiring a fundamental shift in thinking, and the present paper aims at investigating the product innovation strategies available on emerging markets, theoretically and practically through examples and a case-study of the Romanian tablet market. At the beginning, the theoretical framework is described through the most relevant contributions to the field of product innovation. Some conceptual clarifications are provided, in the context of a widespread usage of terms in various fields of science. The second part of the paper attempts to define the 'emerging markets' and to find distinctive their characteristics, attempt hampered by their great diversity and complexity. The third part provides empirical support for the product innovation strategies used by local tablet producers in Romania. Findings show local tablet producers used the frugal innovation strategy in the first years of operations. Afterwards, the increasingly competitive market and the gradual sophistication of consumers made a shift in strategy, to new product development and innovation strategy, in the context of keeping the low-cost positioning of the locally produced tablets.

Keywords: product innovation, new product development (NPD), frugal innovation, product innovation strategy, emerging market, tablet, Romania

JEL Classification: M11

1. Product Innovation: Some Theoretical Considerations

Innovation seems to be a hot topic today, in all fields of activity. Product innovation, in particular, is considered to be a necessity on the highly competitive developed markets and for emerging markets offering tremendous growth opportunities alike.

Extant literature on product innovation reveals a plethora of definitions. OECD defines the concept as 'A good or service that is new or significantly improved; this includes significant improvements in technical specifications, components and materials, software in the product, user friendliness or other functional characteristics'¹.

Several researchers even claim that this resulted in an ambiguity in the way terms were operationalized and utilized in the new product development literature (Garcia and Calantone, 2002). Early references to *product innovativeness* were made by Davidson (1976), Marquis (1969), Rothwell (1976). Although sometimes used interchangeably with 'product innovation', the term *product innovativeness* is most often used to measure the degree of newness of an innovation.

The 'innovation' process represents the technological development of a product, plus the market introduction of the respective product. Henderson and Clark (1990) distinguished between four types of technological innovation: *incremental innovation, modular*

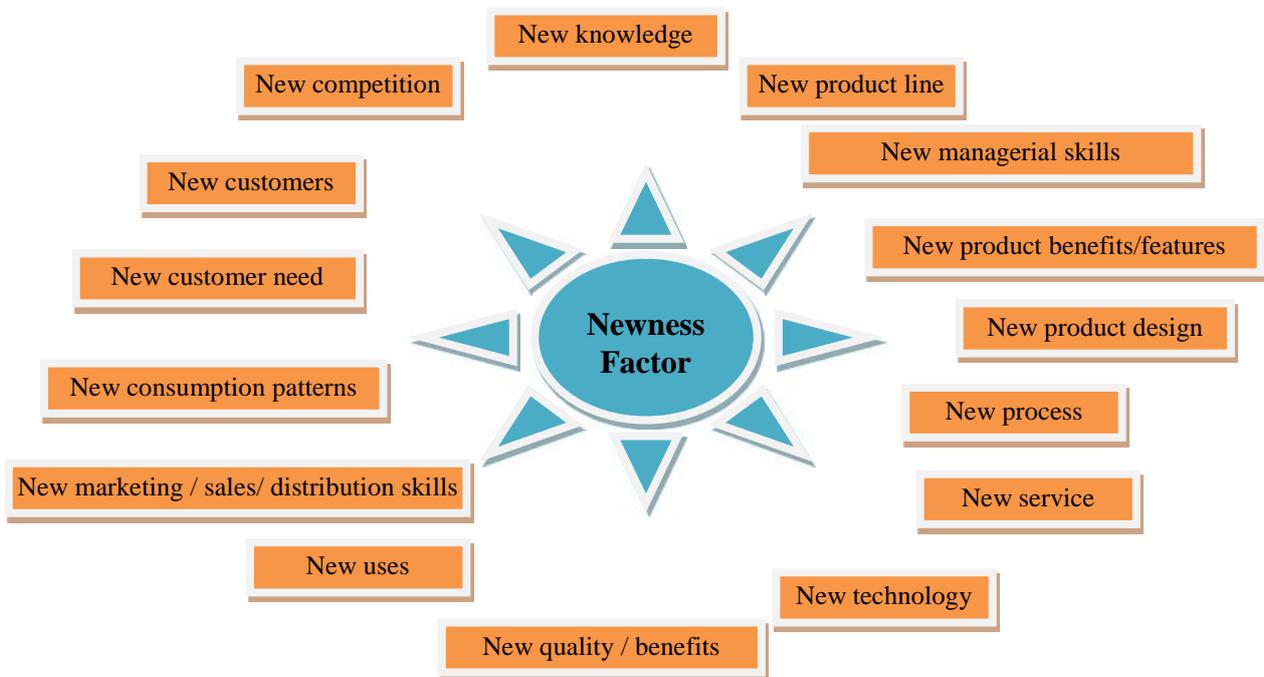
¹ Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data, 3rd Edition (2005), p. 163

innovation, radical innovation, and architectural innovation. They go further into the investigation *product architectural innovation*, whose essence is the reconfiguration of an established system to link together existing components in a new way. The research conducted by Lee and Na (1994) explored *technical innovativeness*, considering the radicalness of technical innovativeness as a contingency variable.

Of course, not all product innovations prove successful. Often, researchers evoke famous product failures to show that marketing product innovations could be a lottery game: sometimes you win, other times you lose. Cooper (1979) conducted an extensive investigation of success and failure factors for industrial new products. He identified 3 factors that described the innovativeness of the venture: *newness to the firm* (“A project which takes the firm into new markets, new technologies etc.”), *product uniqueness* (“A product which is truly unique; firm is first into the market with type of product”), and *product uniqueness / superiority* (“A product which has significant improvements over previous products making it unique and superior”) (p. 98). Kleinschmidt and Cooper (1991) demonstrated that the relationship between *product innovativeness* and commercial success is U-shaped, meaning that both high and low innovativeness products are more likely to be more successful than those in-between.

An extensive research on product innovativeness from the firm's perspective was conducted by Danneels *et al.* (1998). They tried to clarify the *product innovativeness construct* and examine its underlying dimensions; to examine the relation of product innovativeness with the decision to pursue or kill the project; and to examine the relationship between *product innovativeness* and *product performance*. The following five dimensions of product innovativeness were found to influence the decision to market the product and product performance: market familiarity, technological familiarity, marketing fit, technological fit, and new marketing activities.

Figure 1. Literature Synthesis of the Newness Factor



Source: Adapted from Garcia and Calantone (2002)

2. Emerging Markets' Challenges for Product Innovation

One may think that innovation flows in one direction, from the developed world into developing or emerging markets. This is also argued by the latest Innovation Union Scoreboard (EC, 2014) that presents the situation within the European Union. According to it, European countries fall into one of four categories with respect to innovation: *innovation leaders* (e.g. Sweden, Denmark, Germany, Finland), *innovation followers* (e.g. Luxembourg, The Netherlands, UK), *moderate innovators* (e.g. Italy, Czech Republic, Spain, Portugal), and *modest innovators* (Bulgaria, Romania and Latvia).

Emerging markets from around the globe got the attention of developed world companies, due to their huge potential for growth. Emerging markets are usually defined through macro-indicators quantifying growth potential, like: 1) the absolute level of economic development or the level of income, measured usually by the GDP per head; 2) the GDP growth rate; 3) the relative balance of agrarian and industrial/commercial activity (Arnold and Quelch, 1998); 4) the governance and stability of the free-market system. The term “emerging market” was proposed by a World Bank economist in the 1980s², and it is currently used interchangeably with ‘developing markets’, ‘developing nations’, ‘developing economies’ or ‘emerging economies’.

Oversimplified, an *emerging market can be defined as a country with low - to - middle per capita income as measured by the World Bank* (HSBC, 2014). But, a look at the list of emerging markets reveals a great diversity in terms of their economic, political and social systems. A comprehensive definition was provided by Kvint (2009): ‘*An emerging market country is a society transitioning from a dictatorship to a free-market-oriented-economy, with increasing economic freedom, gradual integration with the global marketplace and with other members of the global emerging market, an expanding middle class, improving standards of living, social stability and tolerance, as well as an increase in cooperation with multilateral institutions*’.

Therefore, a single definition cannot capture the entire diversity and complexity of these markets. Still, some common characteristics can be formulated. First, emerging markets are those markets which are not considered developed, where “developed” here refers to industrialized countries like the major European countries plus USA, Canada, Japan, Australia and New Zealand. By using only this approach, the risk is to consider to be ‘emerging’ all the other countries except for the previously mentioned ones, which is not the case. Second, emerging markets have a large growth potential. Countries like Brazil, Russia, China and India are currently considered to be the world’s fastest-growing economies, attracting foreign direct investments from multinationals in the perspective of large future profits. Third, these countries suffer institutional transformations and economic opening. Fourth, they start to play an increasingly important role in the global economic and political arena. Many emerging economies have large populations and supplies of key natural resources such as oil, metals and timber.

Amadeo (2014) argues that there are five generally agreed upon characteristics of an emerging market:

1. lower-than-average per capita income;
2. rapid growth;
3. high volatility;

² Antoine van Agtmael

4. higher-than-average return for investors;
5. currency fluctuations.

Due to emerging markets' economic opening and participation to international trade, both international and local businesses are currently competing on these markets. Local firms in emerging market were often called 'latecomers' in relation to their competitors from the developed world as they were late to enter their targeted industries relative to successful Western multinational enterprises and are behind the incumbents in terms of technological capabilities (Mathews and Cho, 1999; Mathews, 2002). This 'latecomer' status is often characterised by disadvantages in terms of technological development: it has limited human, financial and technological resources for innovation, it operates in isolation from the poles of technological innovation which are considered to be located in developed countries, it lacks exposure to demanding and sophisticated developed market consumers to drive innovation (Hobday, 1995; Kim, 1997). Nevertheless, there are incontestable advantages of local firms, residing from country specific advantages (CSA): better market knowledge, access to cheap materials and workforce and others depending on the case.

Emerging markets are no longer considered an extended workbench for developed market multinationals, but they are currently approached through specific business strategies. Several decades ago, emerging markets were considered a source of cheap materials and workforce. This is no longer the case. Developed market multinationals seized the large growth potential of these markets and started to offer products tailored to the specific needs of the emerging markets' consumers.

To tap into the innovation potential of emerging markets, research & development (R&D) hubs were established here by developed market multinationals. A recent study by Ernst& Young (2011) showed that only 17 percent of developed market multinationals had R&D centres or network of R&D centres only in a developed market, while the vast majority of 64 percent of investigated developed market multinationals had global networks of R&D centres across both developed and rapid-growth emerging markets. The rest of about 20 percent of developed market multinationals had established R&D centres only in rapid-growth emerging markets.

Serving emerging markets raises unique **challenges** for companies:

Low and irregular income: This main characteristic of an emerging market requires particular new product development strategies to come up with an *affordable product with basic features* to consumers through product innovation and the use of local cheaper resources (materials, labour, and partners). An important role is attributed to *scale advantages* which are ensured by the large populations of emerging markets.

Limited education: The education level of consumers determines the sophistication of the product. On emerging markets, offering products with basic features which are easy to use is not only the right way to reduce product's cost but the solution to increase product's acceptance among consumers. On the long run, even consumers from emerging markets get more skilled and sophisticated, multinationals being recognized as contributing to the educational development of consumers.

Inadequate infrastructure: Physical infrastructure in emerging countries is underdeveloped, causing problems that require product innovations: black-outs or even lack of electricity, lack of running water or polluted water, poor road or rail networks, lack of sanitation, missing or underdeveloped banking infrastructure. All these require

specific product or service adaptation. See examples of Nokia 1100, Tata low cost water purifier, GE portable EKG in the next section.

Fragmented distribution: The infrastructure level of development determined the complexity of the distribution system. The lack of modernised road infrastructure may determine that the distribution system ends in urban centres without reaching rural areas in emerging markets. Thus, innovative ways for product distribution have to be used. For instance, the strategy used by Coca-Cola in African countries, where locals are paid per transported case. More so, medicines and water purifying pills can be transported between the coca-cola bottles.

Strong informal economy: The informal economy comprises half to three-quarters of all non-agricultural employment in developing countries according to International Labour Organisation website. Participating to the informal economy might have different reasons than to evade taxes, as it is the case on developed markets. De Soto (2000) argued that in the developing world, it is simply too costly or complicated for many entrepreneurs to enter the formal economy, and such informal ways of doing business are used.

Dominant social contracts and social institutions: In the informal economy, transactions are grounded primarily on personal relationships, while public institutions have a strong social orientation. This situation often raises serious issues for a foreign company entering on the market, this is why partnerships with locals are usually concluded.

Local partners' lack of experience: In their effort to understand the local business environment but also to protect proprietary technology and knowledge, multinationals concluded partnerships with local actors that participate in the formal economy: private small and medium-sized domestic firms, private large firm, state-owned firms, NGOs or governmental organisations. However, these organisations do not possess the knowledge and competences required by the multinational company, and this has to be fixed through knowledge transfer.

Societal performance: In emerging countries there is an increasing pressure for multinationals to take a greater role in addressing societal issues, through corporate social responsibility actions.

3. Product Development and Innovation Strategies in Emerging Markets

The unique challenges raised by the emerging markets' business environment impede upon the product innovation strategies to be used. Given the market's characteristics and challenges, they require for products developed for emerging markets to have certain attributes (the 4As):

- Affordability – to be affordable, cheap
- Adaptability – to consider local contexts
- Accessibility – to reach a large scale of consumers
- Awareness – to respond to a basic unmet need, often a societal challenge

New product development for emerging markets can be performed by using the following strategies:

3.1. Adapting existing products to local markets

This strategy corresponds to the normal initial entry into an emerging market. Often, there are situations where emerging markets are seen as prolongations of home markets, cases in which the company sells on the emerging market the same products as in the home market. At entry, the company has reduced market knowledge and very low to inexistent local trust. Therefore, this strategy can be used to acquire market knowledge and cultural understanding to build a position on the new market.

Since emerging markets consumers are less knowledgeable and sophisticated and have lower incomes, the company proceeds to *de-feature* the product by removing some features or attributes of the product offering in order to reduce cost and to compete on value and cost. This way, the basic product remains the same as it was in established markets, but it has fewer features. Halvadar (2010) noted that eliminated features might include after-sales (door-delivery, installation, training, and technical service).

This strategy does not support a dominant market-share position in a competitive environment, but can be used to test a product or a new market. Also, it is argued that de-featured products typically fail in emerging markets because ‘*they were not fundamentally designed to take into account the inherent constraints of the local markets’ socioeconomic context*’ (Radjou *et al*, 2012).

Figure 1. Product Development and Innovation Strategies in Emerging Markets



3.2. Developing new products to local markets

This strategy corresponds to a higher level of engagement in the new market. Having gained experience and knowledge of emerging market consumers, the company is able to design products especially for the new market. If de-featuring refers to taking the product and eliminating features and attributes to reduce cost, this strategy consists of building new products from scratch for the new market. For emerging markets the company conceives, designs and makes a new low-cost locally appropriate product through product innovation, being aware of the challenges raised by the socioeconomic context, and this was called ‘frugal innovation’.

Innovation efforts for building products specially-designed for emerging markets, in general, and for the “base of the pyramid”³, in particular, led to the development of the so-called “frugal” products. These products are highly innovative and adaptable, have

³ The concept was discussed by Prahalad, C.K. (2002): The Fortune at the Bottom of the Pyramid, *Strategy and Business*, Vol. 26 No.1, pp.1-14.

affordable prices being designed for mass-market segments, and have a series of features (Pascu, 2013):

Functional – *The product's performance is medium to low, but it is precisely tailored to the core product usage requirements of the region.*

Robust – *The product is robust, low-maintenance and resistant to variable environmental conditions such as dust or power cuts.*

User-friendly – *The product is intuitive and easy to use without training.*

Growing – *The market is growing fast and enables high production volumes and economies of scale, reflected in lower unit costs.*

Affordable – *The product's low price level corresponds to the target group's willingness to pay and thus offers good value for money.*

Local – *The product is designed specifically for emerging markets and is partly made in the region.*

The development of frugal products typically starts with consumer needs and then works backwards to develop solutions that meet those needs with scarce resources. In India, for instance, frugal innovation comes out of the tradition of *jugaad*, which involves doing more with less by improvising workable solutions from minimal resources (Radjou et al., 2012).

Examples of emerging market frugal innovations:

- When entering emerging markets like India, Nokia realized that its mobile phones have to be not only low-cost, but also very robust, shock-resistant and withstand exposure to high variations in ambient temperatures and dust. Nokia 1100 was built, a model with a minimalist design, addressing basic communication needs: calling and texting. Later, the phone was equipped with a flashlight, since large parts of Indian rural areas suffered from frequent power cuts. The phone became also popular in other markets from Africa and Asia, for example being used by truck drivers as a torch when repairing trucks during night. Also, the phones have multiple phone books, since a phone is used by multiple users;
- TATA Chemicals developed the worlds' low cost water purifier (Swach) to solve the issue of unavailability of safe drinking water for the economically disadvantaged people. The affordable device used rice husk combined with silver nano particles for the filtration process⁴;
- General Electric developed an portable electrocardiograph (MAC ECG) for the Indian market, which is affordable, convenient and easy to operate;
- X-ray machines developed for emerging markets differ from those available in highly industrialized countries. They are designed for key standard procedures such as examining broken bones or tuberculosis patients and not equipped for more complicated examinations, and are made of cheaper and more durable materials such as steel, instead of brass materials (Pascu, 2013);
- Renault developed Dacia Logan as a low-cost car dedicated to emerging markets. Launched in 2004 at around 5000 euro, the Logan offered basic automotive features at high value for money. The Logan is marketed around the world under various brand names: Dacia, Renault, Nissan or Mahindra. The production initially located in Romania, was partially or entirely relocated to other emerging markets like Morocco, India, Brazil, Russia, Iran, Columbia and South Africa;

Developing new products to emerging markets requires taking into consideration several challenges: low incomes; local tastes and usage patterns; and market governance and infrastructure: supply chains, information brokers, education, and

⁴ <http://www.tataswach.com/AboutSwach.aspx>

governmental/regulatory structures. Collaboration with local partners is a way to overcome many difficulties in developing and selling a low-cost product on emerging markets.

- Hewlett-Packard (HP) opened a new research centre in Beijing in 2011 dedicated to develop products for emerging markets. The strategy is to develop in China a '*certain number of technologies that are particularly well suited for other fast-developing markets that have similar characteristics*' (Lococo and Ricadela, 2011)⁵. At the same time, HP launched a new cloud computing centre in Tianjin and announced the expansion of manufacturing in Shanghai, according to the same source.

3.3. Innovation and New Product Development (NPD) from emerging markets targeting developed markets – *Reverse Innovation*

Although originally developed for emerging markets, many product innovations that were successful on emerging markets were transferred to developed markets and proved to be extremely popular among developed markets' consumers. The process was called '*reverse innovation*' by Immelt *et al.* (2009) in a study on General Electric's innovation practices. They argued that this process is 'the opposite of the *glocalization* approach that many industrial-goods manufacturers based in rich countries have employed for decades'.⁶

- Two highly innovative and revolutionary products of General Electric were used by Immelt *et al.* (2009) to exemplify reverse innovation: the \$1,000 handheld electrocardiogram device (MAC ECG) and a portable, PC-based ultrasound machine that cost around \$15,000.
- Delphia yachts represent another successful innovative product produced in an emerging market, Poland. Highly innovative, they offer high quality and comfort to price conscious buyers from all over the world. Warsaw Business Journal (2005) noted that yachts are becoming Poland's flagship export product and the country's most recognizable brand.

As examples show, this strategy can be used by developed markets multinationals and emerging markets multinationals alike. Emerging markets multinationals can export successfully to developed markets their products built for their home markets. Over the past two decades, they have been expanding and acquiring new businesses abroad at a frenetic pace, and consolidated their position on developed markets.

4. Product Innovation on an Emerging Market: The Case of The Romanian Tablet Market

Located in the Eastern Europe, Romania is a member of the European Union since January 1st, 2007. Among EU countries, Romania ranks 7th in terms of population with 21.5 million people, and 9th in terms of surface with 238,391 square kilometres. The country represents the Eastern border of the European Union, neighbouring with the following non-EU countries: Ukraine to the North and East, Republic of Moldova to the

⁵ Interview with Leo Apotheker, CEO of HP

⁶ Glocalization was called the development of great products in the home country and their commercialisation worldwide, with some adaptations to local conditions (Immelt *et al.*, 2009)

North-East, and Serbia to the South-East. It became a free market economy in December 1989 when the authoritarian regime led by Nicolae Ceau escu collapsed, after 45 years of Communism. Presently, after 25 years of transition to the free market economy Romania shows the characteristics of an emerging country.

- *Low income.* The average monthly household income in Romania was around 570 EUR in 2013, while the average monthly income per capita situated at about 240 EUR for an employee, 195 EUR for a retired, and 100 EUR for an unemployed person (INSSE, 2013a). In 2013, the GDP per capita was around 7000 EUR (INSSE, 2014) with large discrepancies across regions.
- *Low to average level of education.* Over the past decades, the educational level of the Romanian population improved consistently. Still, the 2011 national census showed that 44.2 percent of the population aged over 10 years old had a low level of education, 41.4 percent had secondary educational attainment, whereas only 14.4 percent had a higher education level (INSSE, 2013b). Almost 40 percent of the total Romanian population declared to have some computer literacy: 10 percent high computer literacy, 14 percent average computer literacy, and 15 percent reduced computer literacy. Computer literacy decreases with age: above average computer literacy was declared by: 55 percent of the 16-24 age interval, 37 percent of the 25-34 age interval, 22 percent of the 35-44 age interval, 14 percent of the 45-54 age interval, and 6 percent of the 55-64 age interval (INSSE, 2012a).
- *Inadequate transport infrastructure.* Romania's transport network is integrated in the EU transport network. Romania has 2 core network corridors crossing its country: the Orient East-Med multimodal corridor (road and rail transport), and the Rhine-Danube multimodal corridor (rail and inland water transport). Efforts are made to raise these transport routes to meet the European standards, efforts financially supported by both Romanian and European financial resources. Still, these efforts proved slow and accompanied by corruption scandals in attributing infrastructure development contracts. For instance, as regards the road infrastructure, the country has 530 kilometres of highways, with another 60 kilometres planned to be finalized in 2014 (Government of Romania, 2014). Modernized roads represented only about one third of the total of 83703 km, whereas electrified railways represented about 37 percent of the total of 10777 km in 2011 (INSSE, 2012b).

Further on, the introduction and development of a new product – the tablet – on the Romanian market is presented and analysed. Tablets become one of the most appreciated gadgets around the world and on the Romanian market as well due to the advantages they offer as a device for communication developed between smart-phones and laptops. Among the advantages that consecrated the tablet the following can be mentioned:

- Simplicity / ease of operation
- User-friendliness
- Rapid access to information and content
- Easy to carry / lighter than laptop
- Wider screen than smart-phone
- Customised applications
- Communication and entertainment tool

Two phases of the existence of the tablet on the Romanian market were identified, in terms of product innovation strategies used by the local tablet producers:

Phase 1. Development of Frugal Products (2010-2012)

Tablets made the scene on the Romanian market in spring 2010. At that time, iPad was imported by several on-line shops from Western authorized distributors. The success and the high price of the iPad on the Romanian market made already established Romanian producers of various electronic devices to design and produce tablets for the local market. Later in 2010, the first Romanian tablet was launched – **Allview**, followed by **Evolio** in 2011 and **E-boda** in 2012.

The **Allview** brand belongs to the Romanian company Visual Fan established in 2002. In spring 2008, the company decided to enter the mobile phones market, with two models better adapted to Romanian consumers' requirements: low-cost and dual SIM cards for different network operators. In December 2010, the company rapidly introduced the Allview tablet, as a fast response to the iPad availability on the local market. The tablet was launched at a price of 200 EUR. The model is still available for sale at 50 EUR.

Launched one month later, in January 2011, the **Evolio** tablet belongs to the Romanian company Televoice. At that time, the company was an active player on the local e-book reader market. The first models of Evolio targeted people that haven't had a tablet and needed one for web surfing, basic games or media play. It had some preinstalled Romanian applications and the initial price of 175 EUR was lower than that of the more recently launched competitor product, the Allview tablet.

In spring 2012, another Romanian tablet - **E-boda** - was launched on the market at a price of 145 EUR by Rosal Import Export. The company reached a 14 percent share of the Romanian tablet market in the first year of E-boda tablet introduction (Vasilache, 2013).

Tablet sales in Romania amounted to 40,000 pieces in 2011 and 200,000 pieces in 2012, according to a tablet producer representative interviewed by Vasilache (2013). The tablets produced in Romania were the result of a process of product innovation, having the characteristics of frugal products:

- *Low price*: between 145 and 200 EUR;
- *Low quality*: resistive touch screens, plus other lower quality materials;
- *Locally adapted*: locally designed, Romanian language, local applications;
- *Basic features*: web navigation, ebook reader, multimedia player;
- *Low performance*: older Android versions, low response time, long application loading time, poor resolution, difficult tablet-PC synchronising; poor WiFi connectivity;

Phase 2. Product Innovation in an Increasing Competitive Environment (2013-2014)

In the next years, the tremendous growth potential of the Romanian tablet market attracted not only incumbents from other product markets, but also international producers of electronic devices. Romania's large population of over 20 million represented an untapped opportunity that attracted multinational corporations well-established in the ITC sector. If in the first two years 2010-2011 Apple dominated the tablet segment with the iPad, its main rivals on this market – Samsung, Lenovo and Asus – entered the Romanian tablet market with a wide range of tablet lines of products similar in terms of quality and hardware specifications, as we may see from the current situation on the market shown by Figure 2. Some of their products offer even enhanced features like Full HD screen or faster connectivity through 4G.

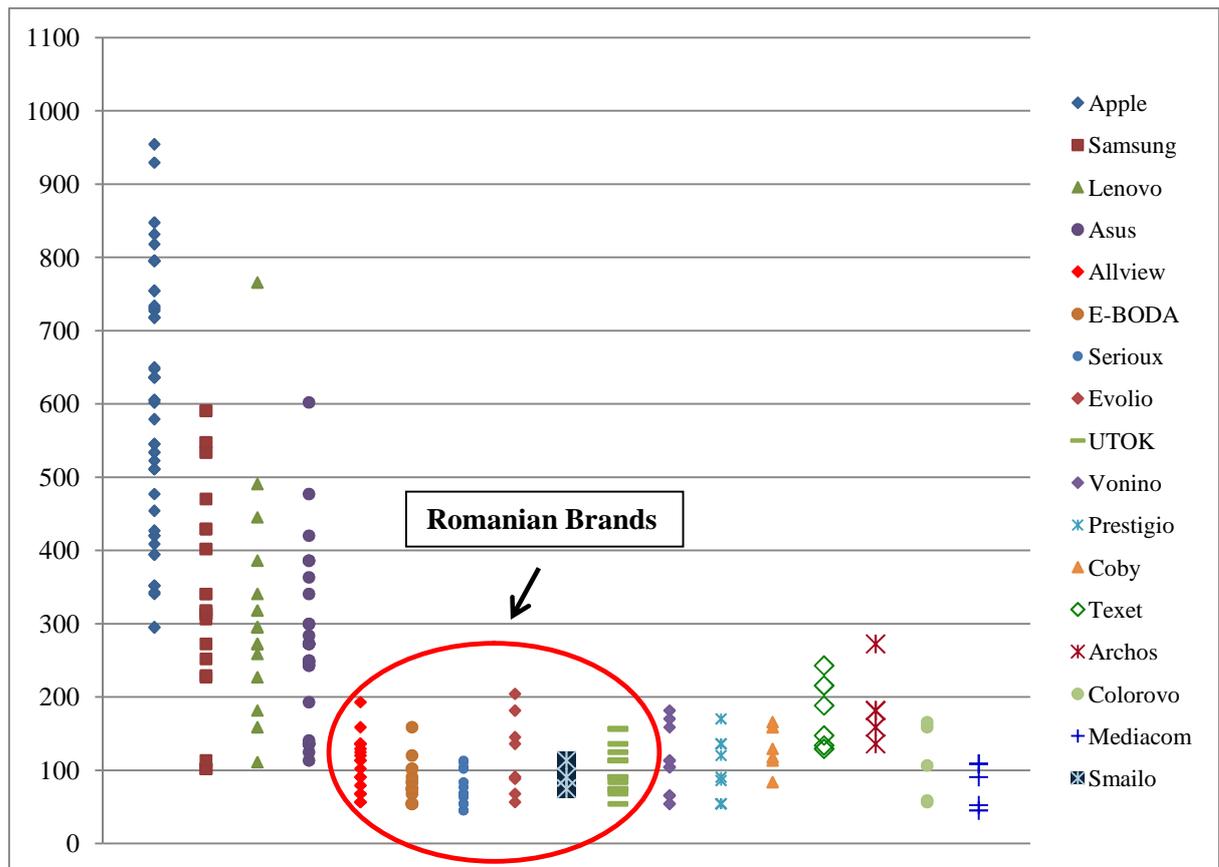
Although present since 2010 through e-commerce, officially **Apple** tablets entered the Romanian market in 2012 through several iStyle shops located in prestigious shopping malls. At present, Apple is present with three tablet models (iPad, iPad mini, and iPad Air) with 45 different configurations in total. iPad prices range from 395 to 535 EUR, iPad mini prices range from 352 to 730 EUR, and iPad Air prices range from 420 to 955 EUR. All models have dual core processors and the iOS Apple operating system.

On the Romanian market, **Samsung** offers three models: Galaxy Tab Lite (price range: 100 – 115 EUR), Galaxy Tab (price range: 225-545 EUR), and Galaxy Note (price range: 225-590 EUR). Samsung tablets are equipped with three types of processors (dual core, quad core, and octa core) and have installed the Android operating systems.

Asus' tablets available to Romanian consumers are: MeMO Pad, FonePad, VivoTab Note, and Transformer, with prices ranging from 125 to 600 EUR. In addition, Google Nexus 7 is offered with three different configurations at a price ranging from 243 to 340 EUR. Assus tablets have single, dual or quad core processors, and Android or Windows 8 operating systems.

Lenovo tablets include A3500 and IdeaTab models with price range from 115 to 160 EUR. IdeaPad is offered in over 10 different configurations at prices ranging from 230 to 445 EUR, while ThinkPad tablets' price ranges between 490 and 765 EUR. The tablets have single, dual or quad core processors, and Android or Windows 8 operating systems.

Figure 2. Price range of tablets (EUR) on the Romanian market in 2014



Notes: Producers are listed in the order of number of models sold; Prices were taken from the website of the largest online retailer, and are inclusive of 24 percent VAT.

Facing increased competition from multinational corporations, Romanian tablet producers had to reconsider their product offering. A continuous product innovation process was used to develop more sophisticated products for increasingly demanding consumers. The frugal innovation strategy was replaced with continuous innovation of the product and new product development strategy. Nonetheless, the frugal products were kept in the product portfolio. The reduced price of all tablets remained the main competitive advantage in relation to international competitors. For the domestic tablet producers innovation became a way to better answer the needs of the Romanian consumers and to better market their products in order to bring more value to consumers.

Allview is one of the most active player on the electronic devices market. At present, they offer the widest range of tablets, with over 60 configurations. The cheapest product is AllDro 4GB with Android 2.1 at around 90 EUR and the most expensive is Allview Alldro 3 Speed Quad Smart 2 View with Android 4.1 with detachable aluminium keyboard at around 200 EUR. The owner of the brand, Visual Fan, owns a research & development centre and a warehouse near Brasov. At present, their range of products include: dual SIM mobile phones, tablets, GPS navigation systems, TVs, notebooks and audio systems.

E-boda offers 17 tablet models with different technical characteristics. The lowest priced is E-boda Essential Dual Core 8GB 7'' with 3G and Android 4.2, while the highest priced is E-boda Supreme X-400 Quad Core 16 GB 9.7'' under 200 EUR. Aside tablets, the company offers the largest range of other electronics: smart-phones, media players, DVD players, digital photo frames, watches, scales, air humidifiers etc.

Evolio uses dedicated positioning strategies for different market segments. They offer a wide range of tablets, with prices ranging from 45 EUR for EvoTab 4 to around 200 EUR for Evolio X10 Fusion 16 GB addressed to business people. The latter offers improved security through Norton Mobile Security, super IPS high resolution screen, stereo sound, detachable keyboard and preinstalled business applications. Also, they developed Tabby for Kids with educational and entertaining applications with parental control. Product portfolio also includes: smart-phones, e-book readers, GPS navigation systems, telephones, notebooks, smart TV controllers and accessories.

Serious is a Romanian brand created in 2006 under which various electronic devices are sold: tablets, phablets⁷, eBook readers, GPS navigation systems, digital photo frames, media players, PC gaming components, web cameras and play stations. The tablets sold under Serious brand fit roughly into the same price range as the other Romanian competitor tablets between 50 and 200 EUR. According to company estimations, their market share was 20 percent of the total tablet market in 2013 (Barza, 2014).

A latecomer on the Romanian tablet market, **UTOK** underlines the accessibility of technology to all consumer segments. The low price and the value for money are the competitive advantages of the UTOK tables, plus the extended warranty to 5 years.

The investigation of the product offerings from the Romanian tablet market revealed their continuous improvement through various product innovations. They were analysed at the three product levels defined by Kotler and Armstrong (2005):

Core product: *The benefit of the product that makes it useful to the purchaser.*

Actual product: *The specific product offering designed to satisfy the need defined through: features, quality, style, brand, packaging and others.*

⁷ Phablet is called a mobile device designed to combine or straddle the functions of a smart-phone and tablet

Augmented product: *Additional bundle of benefits, usually offered through after-sales services (warranties, delivery, installation, finance, customer care, other services).*

We may argue that the core product is the frugal product, whereas innovations were made at the second and third levels of the product: the actual product and the augmented product (see Table 1).

Table 1. Product levels and associated benefits' innovation

Core product:	<i>Benefits:</i> the ability to navigate on the internet, to play simple games, to use applications, to play media files
Actual product:	<ul style="list-style-type: none"> - Quality materials - Improved design and style - Brand image consolidation <p><i>Innovations:</i></p> <p>Hardware:</p> <ul style="list-style-type: none"> - Standard, mini or micro USB plugs - HDMI jack - HDMI output through WiFi - Audio jack 3.5 mm for speakers or headphones - Extended internal memory - High resolution display - Reduced weight - Different colours (e.g. white, grey, silver) - Multiple cores (e.g. quad or octa core processors) - Increased battery life - WiFi, 3G, or Bluetooth connectivity - Rotating frontal camera up to 210 degrees - Detachable aluminium keyboard, with protection role; - Free hands-free and car charger; <p>Software:</p> <ul style="list-style-type: none"> - Apps in Romanian - Apps location relevant - Automated Cloud back-up - Content and media portability - Tablet sharing among different users (local adaptation to the habit of sharing tablets among family members). - Parental control feature to stop children from accessing stored content or websites - Free 100 Romanian e-books - Voice control - Video calling - GPS maps

Augmented product:	<ul style="list-style-type: none"> - Extended warranty to 5 years if the tablet is registered in the preinstalled app Warranty (UTOK) - One month subscription for the Seenow app - Free data traffic for 1 year - Free delivery - Credit option from several retailers - Free replacement - Customer care
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Source: own investigation

The low-cost strategy adopted by the Romanian tablet producers was kept during the years accompanied by product's performance improvement. The pricing practice established a psychological threshold for Romanian tablets at 999 RON, which could be translated to about 199 EUR. This threshold was communicated several times by the Romanian producers' representatives through mass-media, and it was clearly shown by Figure 2.

Tablet sales in 2013 amounted to around 600,000 pieces, according to a tablet producer representative interviewed by Vasilache (2013). The same source estimated that about 2 million tablets would have been sold in Romania by the end of 2014.

The experience gained on the local market and the knowledge acquired through research & development activities determined several Romanian producers to export their products to other countries. For instance, Evolio targeted German and Austrian markets with a low-cost tablet priced at around 55 EUR, the cheapest tablet available there. The internationalisation decision was taken following the notice that over 15 percent of their total website visitors reside in Germany.

5. Conclusions

Emerging markets offer tremendous opportunities for growth accompanied by specific challenges for multinational corporations and local firms alike. Among these challenges, several need close attention and action in order to be overcome: low and irregular income of emerging markets' consumers, limited education, inadequate infrastructure, fragmented distribution, strong informal economy, dominant social contracts and social institutions, local partners' lack of experience, regulatory interference, and societal performance. As an emerging market, Romania shows the above-mentioned generally accepted characteristics of emerging markets, but at the same time steady growth and country specific advantages (EU membership, strategic location on Europe-Middle East-Asia trading route, IT-skilled personnel, large population, full mobile telecommunications network coverage).

The focus of the investigation was represented by one of the most dynamic product markets, the electronic device called 'tablet'. Perhaps surprisingly, the Romanian tablet market become very crowded in only a couple of years, being invaded by international and local producers alike. Six of the Romanian tablet producers were presented in the paper through tablet product offering, entire range of products, and price range. Even if Romanian tablets' performance cannot be compared to the performance of their major global competitors' products, they seem to represent the ideal solution for budget

constrained consumers.

The case study clearly illustrates that the majority of the local tablet producers had a strategy driven by the competition, which can be characterised by imitative approaches to market and reactive actions. Nevertheless, they have been engaged in research & development activities and developed products with innovations to better meet the needs of the Romanian consumers. Such innovations provide opportunities to improve the educational level of consumers by enhancing not only their IT and communication skills, but also their knowledge through electronic content.

Findings also show that the frugal innovation strategy was used at the emergence of the tablet market by the local producers. The strategy typically starts from the market context – in this case from the emerging market's challenges and opportunities and consumer needs, and works backwards to develop products or services. The opportunities attracted many new entrants to the market, increasing competition and requiring clear positioning strategies from local producers. The competitive environment and gradual consumer sophistication forced them to innovate their products continuously in relation to the local needs. As a result, local producers offer a wide range of tablets, from the initial frugal product to flagship products with latest technologies at affordable prices. More so, several producers are arranging to penetrate developed European markets with low-cost tablets.

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