LATVIAN PHARMACEUTICAL MARKET: A REVIEW OF MARKETING COMPONENTS AND DEVELOPMENT TRENDS

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Abstract. In-depth market assessment is crucial prior making investments into product development and decisions on marketing strategy, especially in markets with small volume and low value like Latvian pharmaceutical market. Transparent market data and constant market reviews are expected to retain already existing pharmaceutical suppliers and attract new ones; although annual reports of general market figures are available publicly, reviews of pharmaceutical market marketing figures and activities are not being published. By assessing and studying Latvian pharmaceutical market and its marketing components the possible risks and development trends can be outlined and further addressed by pharmaceutical producers and suppliers.

Purpose of the article: The purpose of the research is to assess Latvian pharmaceutical market figures, trends of its marketing key components and their influence on pharmaceutical entrepreneur marketing activities. The findings of this article could later be used by pharmaceutical entrepreneurs to align their marketing strategies for Latvian market and by governmental institutions to better understand pharmaceutical market composition and how the market could be governed to make it more attractive to pharmaceutical entrepreneurs.

Objective: To review Latvian pharmaceutical market, its figures and trends of marketing components and outline market specifics for the use of potential entrepreneurs.

Methodology/methods: In order to attain the goal and objectives, the following quantitative and qualitative methods were used: secondary data research of governmental reports and industry databases, content analysis of the recent scientific and professional literature available and in-depth interviews of pharmaceutical industry experts. The study is based on scientific papers published by foreign scholars, non-governmental organizations and reports from international organizations, governmental and industry bodies.

Findings: Latvian Pharmaceutical market is quite dependent on supplies from foreign producers, but due to low pharmaceutical product prices and small market volume, there is a risk for product supply disruptions and shortages. Over the counter pharmaceutical product demand and promotion activities are linked to seasonal trends; for prescription products relationships with key opinion leaders and other public relations are the main focus of marketing activities.

Keywords: *Pharmaceutical Market, Pharmaceutical Pricing, Pharmaceutical distribution, Marketing.*

JEL code: M31

Introduction

Pharmaceutical product constant supplies and availability of novelty pharmaceutical products is a prerequisite for a solid and secure health care system, especially during the challenging times of COVID-19 pandemic. In markets with low volume and value, like Latvian Pharmaceutical market, keeping sufficient pharmaceutical product supplies and healthy competition could easily become a challenge if market is not managed properly. Therefore, it is important to assess the market figures and trends from the producers and suppliers perspective in order outline possible risks and opportunities for the entrepreneurs and challenges for the competent authorities.

Studies of the marketing key components in specific market is important as they can serve as one of the potential frameworks for the market assessment and can be further used by entrepreneurs to develop their marketing strategies – by defining specific product market figures, distribution channel specifics, pricing levels and promotion trends the producers and suppliers can generally asses if their product has potential in the corresponding market and if company has the required resources and expertise to enter the market. Furthermore, by studying and assessing these key figures of pharmaceutical market the governing bodies can outline the required steps that would make the market more attractive for pharmaceutical product producers and suppliers, thus potentially increasing their availability.

The objective of the research is to review and study Latvian pharmaceutical market, its figures and trends of marketing components, outline market specifics, possible risks and opportunities for the entrepreneurs.

In order to achieve this objective, the research was based on secondary data research of governmental reports and industry databases, content analysis of the most recent scientific and professional literature available and in-depth interviews of pharmaceutical industry experts representing State Agency of Medicines, Latvian Pharmacists Society, local and foreign pharmaceutical producers and local distributor.

Research shows that Latvian Pharmaceutical market is quite dependent on product imports and supplies from foreign producers, but due to low pharmaceutical product prices and small market volume, there is a risk for product supply disruptions and shortages. Product price and quality are the main components that affect the key opinion leaders (pharmacists) attitude towards the producers. Over the counter pharmaceutical product demand and promotion activities are linked to seasonal trends; for prescription products relationships with key opinion leaders and other public relations are the main focus of marketing activities.

Literature Review

Reports by State Agency of Medicines of Republic of Latvia and nongovernmental research organizations were used to outline Latvian pharmaceutical market data and trends; also World Health organization, OECD reports were used to compare Latvian pharmaceutical market with international market trends.

Pharmaceutical product market and State reimbursement system reports from State Agency of Medicines of Republic of Latvia and National Health Service were used to analyze pharmaceutical product pricing levels in Latvia.

Articles from Journal of Clinical and Translational Research, Journal of Management Research and Analysis, International Journal of Physical Distribution & Logistics Management, International Journal of Pharmaceutical and Healthcare Marketing and other related sources were used as information sources.

One of the first steps for creating a well-designed marketing strategy is by assessing the market, customer, possible competitors and trends of marketing key components – product, place, price and promotion. For pharmaceuticals the product and its specifics are the key components that directly or indirectly affects other marketing components. As defined by the European Commission Directive 2001/83/EC pharmaceutical products are specific with their ability of having properties for treating or preventing disease in human beings or they may be used for restoring, correcting or modifying physiological functions of human body or to perform a medical diagnosis. As pharmaceutical product research and development takes at least 9 Years for originator products and at least 2-3 years to bring generic products to the market (Heus, J. J., de Pauw, E. S., Leloux, M., Morpurgo, M., Hamblin, M. R., Heger, M., 2017) it is highly important to do an in-depth market research of the potential pharmaceutical product prior developing and/ or launching it into the corresponding market.

During the content analysis of the pharmaceutical marketing components it has been noted that Panigrahi, Aware and Patil (2018) have already outlined the classical 4 P`s of marketing as important key components when applying integrated marketing communications in pharmaceutical industry. Although their study is more focused on the pharmaceutical industry promotion activities, the authors of this study emphasizes the role of product, its specifics, pricing level and distribution channel as equally important for pharmaceutical producers and distributors willing to enter a new pharmaceutical market. It is worth mentioning that Wieringa and Leeflang in their study (2013) have concluded that the introduction of new pharmaceutical brands in the market (f.e. Dutch pharmaceutical market) tends to be faster when it receives more marketing support, and also tends to reach a higher level of sales, thus outlining the importance of considerable and reasonable investments for promotion activities.

With the wide variety of active pharmaceutical ingredients (more than 7`000 International Nonproprietary Names identified by WHO in 2017), multiple routes of administration, variable possible dosages and possible indications pharmaceutical producers have a variety of products to produce and develop. As noticed by Rossetti, Handfield and Dooley (2011) the pharmaceutical producers and distributors are tending towards their product portfolio specialization, therefore outlining the importance of forethought product portfolio for the specific market. Furthermore, they`ve stressed out that for successful and prosperous partnership with local supply chain companies, wholesalers and agents are expected to receive their fair share of the margin with regards to the services they provide as limited margins might lower their possibility to withstand market disruptions, thus increasing the risk of pharmaceutical product supply issues; the fee for service model has been outlined by Rossetti, Handfield and Dooley (2011) as one of the applicable alternatives.

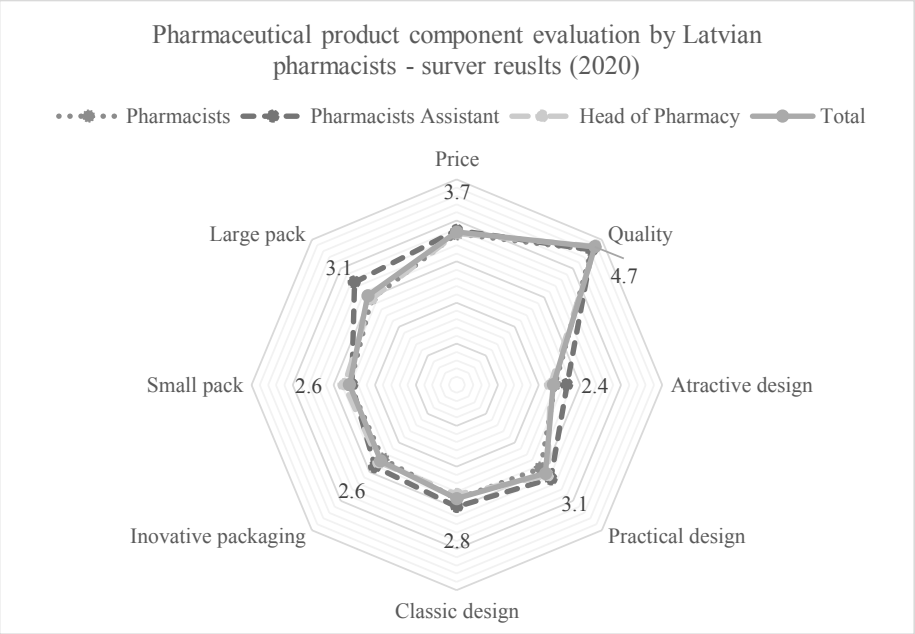
Kauppinen-Räisänen, Owusu and Bamfo (2012) have outlined the importance of the product packaging design noting that the local market specifics and demand should be taken into consideration, as during the purchase process it attracts attention, provides sensory stimulation, communicates the brand, product and product group, and eventually influences consumers' behavior. Furthermore, the brand recognition has been

outlined as important factor as it plays a significant role in the decision making and perception of price, thus outlining the importance of including product and company brand name in the promotion activities.

Research and results

Authors of this study conducted a representative survey of Latvian pharmacists regarding their attitude towards basic product and packaging components as price, quality, pack size and design. Additionally, interviews of Latvian pharmaceutical experts representing multiple fields of action (local producer, foreign producer, distributor, NGO and competent authority) to discuss outlined pharmaceutical market components (product specifics, price, supply chain and promotion) and their trends in Latvian market. The findings from the survey and expert interviews were further assessed and analysed by market data in public and commercial databases and official statements by competent authorities and international organisations.

The representative survey of 207 Latvian pharmacists was conducted in April 2020 – heads of pharmacy (66), pharmacists (96), their assistants (34) and other pharmacy specialists were questioned (in scale of 5) about the factors that they find important when offering pharmaceutical products to patients. As shown in figure 1. the product quality was outlined as the mayor factor followed by the product price; factors like packaging design and size received medium or lower rating, although packages with practical design and larger volume/ more units received better results.



Source: author's construction based on Latvian pharmacists' survey results, 2020

Fig. 1. **Latvian pharmacists' attitude towards pharmaceutical product components and packaging**

The survey also showed that majority of the pharmacists were keen to suggest switching of pharmaceutical product to an alternative product (with the same INN) with lower price offer and the price reduction should be at least 21-35%. Furthermore, considerable part of pharmacists (38.2%) were open to offer pharmaceutical products in foreign language packages if their pricing would be 21-35% less, thus outlining the potential for generic pharmaceutical distributors and parallel importers to supply the products from other markets in cases of significant price or availability difference.

Multiple interviews of experts in pharmaceutical field were conducted, including experts from State Agency of Medicines responsible for supervising Latvian pharmaceutical market, Latvian Pharmacists society representing pharmacist's opinion, representatives of local and foreign pharmaceutical producers and a local distributor conducting product, distribution promotion and sales in Latvia. During the in-depth interviews of expert from Latvian pharmaceutical producers and distributors multiple distribution strategies were outlined. Depending on the pharmaceutical producers marketing strategy and presence in the market the products could be distributed under the following conditions:

1. Directly to pharmaceutical wholesalers, therefore increasing the sales margin/ price flexibility as the producer avoids intermediaries and agents that would expect to take their part of the revenue. But in this case a local sales driving force should be required as these activities traditionally are not covered by the wholesalers.

2. Establish a local representative office with local sales force that does the promotion, generates the demand and distributes the products via pharmaceutical wholesalers (or acquire pharmaceutical wholesalers licence themselves). This is a more costly option as it is followed by regular employment, administration and promotion costs, but it allows the manufacturer to keep full control over the product distribution and revenue margin. This option is more convenient for companies with considerable product portfolio and sales dynamics.
3. Cooperate with a local distribution company/ agent by outsourcing the product distribution and promotion activities, therefore avoiding direct involvement in the market and sharing a larger part of product revenue. This is a considerable strategy for manufacturers with limited product portfolio in the market and irregular sales.

Furthermore, during the expert interviews' multiple trends of Latvian pharmaceutical market were outlined and confirmed:

- As considerable part of pharmaceutical products in Latvia are registered via EU centralised registration procedure (in all EU member states at once), the products not always are actually present in the market. Furthermore, approximately 9% of the pharmaceutical products approved in state reimbursement A list (list of generic products) have constant supply issues.
- An increase in web-pharmacy sales have increased during the Covid-19 pandemic, but still the sales volumes are low and takes only a tiny, insignificant fraction of the market. Experts noted that the low e-commercial activity in the pharmaceutical market could be explained by the main customer segment of the pharmacies that is aged generation with low competence of e-commerce possibilities. Still an increasing trend of pharmaceutical e-commerce is expected as the population continues its maturing process and the trends from the younger population eventually transfers to elderly population.
- The vertical integration of Latvian pharmaceutical market bring both positive and negative effects on the product distribution from the manufacturers perspective. It is easier for the pharmaceutical manufacturer to distribute their product as the vertically integrated distribution networks cover the full supply chain from Manufacturer till end customer. But still, as there are several vertically integrated holding groups in Latvian pharmaceutical market, the competition sometimes brings some tension and the exchange of products between the vertically integrated structures might sometimes be disrupted, thus bringing challenges of the product availability to end customer.
- During the Covid-19 pandemic the face-to-face communication of pharmaceutical producers and distributors with physicians and pharmacists is limited or not possible, thus limiting the communication and promotion activities. Nonetheless, pharmaceutical producers are tackling this challenge by arranging online meetings, conferences and discussions with the physicians, professional and patient organisations.

1. Latvian pharmaceutical market description and pharmaceutical product specifics

Availability of novelty pharmaceutical products as well as low competition for generic products is challenging in smaller pharmaceutical markets like Latvia and other Baltic states. Competent authorities and experts of Latvian pharmaceutical market have outlined and addressed this challenge by taking efforts to make market date more transparent and accessible to industry.

Latvian State agency of medicines runs a convenient pharmaceutical market database that includes up to date information of product availability in the market, official registered price, prescription and reimbursement status, also having the option to compare multiple pharmaceutical products; the selected data can be downloaded and further assessed with analytical software. Agency also publishes annual bilingual report on pharmaceutical market, pharmaceutical product consumption and their dynamics – main suppliers, distributors, market volume, consumption and other relevant market information, thus sharing essential data that could be used for market assessment by pharmaceutical entrepreneurs.

The data shows that total Latvian pharmaceutical market in retail pharmacies has steadily risen from 266.05 Million € in Year 2012 to 370.80 Million € in Year 2019. Although there has been a 0.64% market drop in 2019 (2.38 Million € less than in Year 2018) the up to date tendencies of pharmaceutical wholesaler sales indicates that market is expected to continue its growth in Year 2020.

By looking at pharmaceutical market composition (Year 2018 data) 58% of the market volume (packs sold) is prescription products (vs. 42% over the counter products) that also take 82% of market value (vs. 18% over the counter products), thus indicating that in Latvian pharmaceutical market the prescription products have higher volume and value, thus having higher potential than over the counter products.

Furthermore, as local pharmaceutical producers take only 4.5% of the market value and are more focused on over the counter pharmaceutical product market (59% of packs sold and 39% of sales value) the market is highly dependent on prescription pharmaceutical product importing.

State reimbursed pharmaceutical product statistic annual reports are published by National health service and summarises the state reimbursed pharmaceutical product consumption and their reimbursement value. Being part of State reimbursement list is crucial for the suppliers of such

products as it gives the opportunity for regular supplies to patients with chronic diseases. State reimbursement is fully price competition driven and the supplier with the lowest price offer receives full reimbursement (reference supplier) – for other suppliers the price difference between their offer and reference supplier price has to be covered by end customer, thus considerably reducing the demand. Therefore the available reimbursement statistics are important for potential pharmaceutical suppliers in order to assess their competitiveness in Latvian market.

Reimbursement market data shows that it has been increasing from 109.56 Million € in Year 2011 to 171.23 Million € in Year 2018. Infectious and parasitic diseases have received the most amount of reimbursement (33.76 Million €) followed by Oncology diseases (29.76 Million €) and endocrine, nutritional and metabolic diseases (27.85 Million €)., thus outlining the therapeutical groups with the highest potential for pharmaceutical suppliers.

2. Pharmaceutical product distribution channel specifics

Similarly to other EU pharmaceutical markets also in Latvia there`s a regulated distribution chain for pharmaceutical product distribution – the products can be sold to end customer/ patient only via certified pharmacies under pharmacists provision. There are two kinds of pharmacies in Latvian pharmaceutical market – 775 retail pharmacies, 76 pharmacy affiliates and 30 hospital pharmacies (State Agency of Medicines of Republic of Latvia, 2020).

Hospital pharmacies, a prerequisite for a well-functioning hospital, are operated as subsidiaries within hospitals and are responsible for the supplies of pharmaceutical products and other products required for inpatient treatment. Alternatively, the pharmaceutical products can be ordered and acquired by a physician directly – this is more as an exception used by nursing homes and smaller clinics with low consumption of products where sustaining a pharmacy would be economically irrational.

Retail pharmacies are the supply chain key component where, in contrary to hospital pharmacies, end customer participates in the decision process and can directly choose out of multiple products available by interacting with a pharmacist. Retail pharmacies are scattered around the whole country, although majority of them are located in the capital city of Riga (258) and other major cities: Daugavpils – 38; Liepāja – 30; Jelgava – 24; Jūrmala – 20; Rēzekne – 16; Ventspils – 14; Valmiera – 10; Jēkabpils – 10 (State Agency of Medicines of Republic of Latvia, 2020). By summarising the locations of retail pharmacies, a trend may be noticed that many of the pharmacies are located in shopping centres or close to hospitals, clinics or other health institutions. As per OECD Health at a Glance 2019 report there are approximately 40 retail pharmacies per 100`000 population and that is the 4$^{th}$ highest rate in European Union (average rate: 29 retail pharmacies per 100`000 population) and therefore Ministry of Health has already initiated public discussion on the need of more even retail pharmacy placement settings and count reduction. And although only minority of pharmacies are located in the rural areas they still play a significant role in such areas by being recognised as the local first aid and health assistance points.

Web-pharmacies have been introduced in Latvian market during recent decades – although initially not commonly used, they have shown their specific role during the Covid-19 pandemic by offering contactless pharmaceutical care and product supplies for quarantined Covid-19 patients and high-risk patients who were instructed to avoid public places. Legally the web-pharmacies can only be operated by a certified pharmacy that has a specific licence for web-sales. With the increasing trends of e-commerce, the elderly population becoming more acquainted with the smart technologies and challenges of Covid-19 Pandemic it is expected that the role of web-pharmacies and e-commerce in pharmaceutical field will continue to increase.

By looking further into the supply chain of pharmaceutical market, pharmacies can order and buy the pharmaceutical products only from certified pharmaceutical wholesalers. There are 87 certified pharmaceutical wholesalers and they are mostly located in capital city Riga (60) and its closest suburbs – 13 in Mārupe, Garkalne and Stopiņi (State Agency of Medicines of Republic of Latvia, 2020). Pharmaceutical, medicinal and other healthcare products are acquired by pharmaceutical wholesalers directly from producers (local and foreign), pharmaceutical distributors or other wholesalers, thus being the crucial supply chain component from the pharmaceutical entrepreneur perspective.

Recently the public has outlined concerns regarding vertical integration of pharmaceutical companies in Latvia – it has been noted that all of mayor retail pharmacy chains have an integrated pharmaceutical wholesaler and several retail pharmacy chains have integrated laboratories, clinics, physician practices and/ or pharmaceutical production companies (Public broadcasting of Latvia, 2017; Veselības projekti Latvijai, 2016). A/S "Repharm" should be outlined as the major vertically integrated pharmaceutical holding group that includes the largest retail pharmacy chain ("Mēness aptiekas"), largest wholesaler (A/S "Recipe plus"), local pharmaceutical producer (A/S "Rīgas farmaceitiskā fabrika"), one of the largest clinic chains (A/S "Veselības centru apvienība") and medical laboratory (SIA „Centrālā laboratorija"). It is stipulated that the vertical integration

of pharmaceutical companies in Latvia has been fostered by the strict pricing limitations with limited margins on product distribution, thus pushing companies for cost containment and keeping the profit within the holding.

Low market volume and value might hold back pharmaceutical distributors to enter Latvian market due to high production costs and low revenue, the market is keen to accept multilanguage pack (combining Latvian wording with other language packs) distribution in Latvian pharmaceutical market, thus potentially optimising the production costs. It is a common practice to combine Latvian, Lithuanian and Estonian languages on a unified Baltic pack, therefore combining the demand of these 3 small markets – this action is promoted and supported by State agencies of Medicines of the three Baltic states. Furthermore, as outlined by experts in cases of product shortages Latvian pharmaceutical market is flexible enough to accept foreign language packaging as long it has patient information leaflet in Latvian added to the pack, therefore on specific occasions pharmaceutical manufacturers and producers can distribute their products from other, larger market stocks.

It is wort mentioning that under National regulation pharmaceutical product dispensation has to be done under the provision of pharmacist and therefore practices of pharmaceutical product sales in gas stations, supermarkets or via dispensing machines is not allowed in Latvia, although these practices are common for distribution of food supplements and medical devices.

3. Pricing assessment of Latvian pharmaceutical market

Pharmaceutical product prices in Latvia are regulated by the government as the price has to be officially registered prior launching the product in the market. The maximum market price is limited by the markup set for retail and wholesale – pharmacy markup cannot exceed 10-40% (depending on the wholesale price level) and wholesale markup cannot exceed 10-18% (depending on the manufacturer price level), therefore product market price directly depends on the price manufacturer sells the product to wholesalers. The price has to be officially set by manufacturer and it is publicly available in the State Agency of Medicines database. Although this seems as a fair and transparent pricing model the industry outlines that the limited markups on wholesale and retail level are tight and sometimes barely covers the distribution and service costs. The wholesalers and retailers limited margin lowers the business profitability, thus urging the distributors to delude with the product official pricing and setting undisclosed agreements between the product suppliers and wholesalers (marketing service agreements, rebates), thus gaining higher profitability for distributors. Also, the officially set maximum price outlines the maximum markup of the product, but the products can always be sold at a lower markup, meaning that the actual market price could be lower than the officially set price. In result the pharmaceutical product official maximum price might sometimes be misleading as it does not always represent the price at which the manufacturer/ supplier actually sales the product to wholesaler and the actual market price. Nonetheless the officially set maximum price of the product indicates the product pricing level in Latvian pharmaceutical market and it can be compared with the official prices set elsewhere in European markets. Therefore, in order to avoid possibility of suppliers reducing their investment or fleeing the market the competent authorities should identify potential risks and conduct an in-depth assessment when updating the pharmaceutical product pricing regulations. The potential risks and their effect on entrepreneur investments has been studied and described by S.Saksonova and I.Kuzmina-Merlino (2019).

As there`s no combined database available for officially set market prices of European pharmaceutical markets the authors of this study have used the data from IQVIA database that is also commonly used by pharmaceutical industry entrepreneurs for market assessment. In order to review and asses Latvian pharmaceutical market product pricing levels a set of products were chosen for the study – 3 most used ATC`s of over the counter, prescription and state reimbursed products together with 3 over the counter, prescription and state reimbursed products by their market value (total € spend) as reported by State Agency of Medicines of Latvia and National Health Service.

Table 1

Comparison of average single unit price (EUR) of selected pharmaceutical products in Latvia, Estonia, Lithuania and European Union, Year 2019

Product		Average price Latvia	Average price Estonia	Average price Lithuania	Average price EU
OTC products					
Highest consumption	Acidum Acetylsalicylum (B01AC06)	0.04	0.04	0.05	**0.04**
	Ibuprofenum (M01AE01)	0.09	0.08	0.10	**0.07**
	Xylometazolinum (R01AA07)	0.05	0.04	0.05	**0.03**
Highest market value	Ibuprofenum (M01AE01)	0.09	0.08	0.10	**0.07**
	Xylometazolinum (R01AA07)	0.05	0.04	0.05	**0.03**
	Hesperidinum/ Diosminum (C05CA53)	0.22	0.71	0.22	**0.20**
Prescription products					
Highest consumption	Colecalciferolum (A11CC05)	0.32	0.59	0.14	**0.28**
	Atorvastatinum (C10AA05)	0.09	0.09	0.07	**0.18**
	Rosuvastatinum (C10AA07)	0.14	0.12	0.11	**0.22**
Highest market value	Velpatasvirum/ Sofosbuvirum (J05AP55)	199.15	347.05	16.24	**556.09**
	Adalimumabum (L04AB04)	437.88	566.29	292.37	**495.10**
	Rivaroxabanum (B01AF01)	1.73	1.84	1.77	**2.24**
State reimbursed products					
Highest consumption	Atorvastatinum (C10AA05)	0.09	0.09	0.07	**0.18**
	Perindoprilum/ Indapamidum (C09BA04)	0.21	0.20	0.12	**0.20**
	Rosuvastatinum (C10AA07)	0.14	0.12	0.11	**0.22**
Highest market value	Sofosbuvirum/ Velpatasvirum (J05AP55)	199.15	347.05	16.24	**556.31**
	Insulinum (A10A)	7.80	8.97	7.31	**8.44**
	Adalimumabum (L04AB04)	437.88	566.29	292.37	**495.10**

Source: author's calculations based on IQVIA data, 2019

The market review outlines that the prescription pharmaceutical products in Latvia tend to have lower price than elsewhere in Europe and are below the average market prices, but over the counter pharmaceutical products on the contrary tend to have higher prices than elsewhere in Europe and are above the average; similar trends has been noticed also for Lithuanian and Estonian markets, thus outlining pricing similarities in Baltic pharmaceutical markets (see Table 1). The trends could be explained by the strict regulation on the prescription product promotion as no public promotion is allowed for such products, resulting that demand cannot be generated by customers, the state reimbursement system is price competition driven and with current Baltic States economic situation (lower purchasing power parity than elsewhere in Europe) patients cannot afford higher prices. Nonetheless, the pricing of pharmaceutical products in Latvia can be higher than elsewhere in Europe as seen with over the counter products, thus proving that if proper marketing activities are targeted toward the end customers some price elasticity can be achieved, despite the previously mentioned economic factors.

It is worth noting that during the pharmaceutical product pricing review of the outlined products a trend (although weak) has been identified – over the counter pharmaceutical products in markets with higher competition level and market volume tend to have lower market price than smaller markets with lower competition. Nonetheless, further studies of such trend should conducted in order to confirm such hypothesis.

4. Pharmaceutical product promotion specifics

As mentioned above specific promotion limitations are applied for pharmaceutical products in Latvia – public promotion is not allowed for prescription products, also free sample distribution is strictly controlled and therefore is not commonly applied in practice. Nonetheless, over the counter pharmaceutical products can be promoted publicly with exception to discounting as public pharmaceutical product discounts are not allowed. Therefore, most of the promotion activities outline product specifics, its use and indications in order to inform end customer and draw special

attention to product trade name. Video and audio promotions specifically outline the product trade name acting as a reminder, thus by highlighting trade name vocalisation the promotions seek the product to sink into customer memory. In addition to trade name highlighting it was noted that web and flyer promotions include more detailed information on product indications and use.

Although prescription product public promotion is prohibited, the promotion to physicians and pharmacists is allowed and is widely used as theses specialists are the ones that make the decision on which prescription products will be used and act as the key opinion leaders for the over the counter products. Sales representatives are commonly used for visits to physician practices and retail pharmacies, promotions and articles are published in professional magazines (Doctus, Materia Medica) and websites, product presentations are being displayed during physician and pharmacist professional conferences.

It should be noted that consumption of over the counter pharmaceutical products is affected by seasonal trends and prescription medicinal products are mostly used for chronic disease treatment; thus the promotional activities should be aligned accordingly. By reviewing the over the counter promotional trends over the Year some seasonal promotions can be outlined – cold and flu pharmaceutical product are more common during autumn and winter season; antiallergic products are more common during spring; sunburn, rash and bruise treatment is more common during summer; gastric and digestion product promotion is often linked to events traditionally associated with feasting (easter, midsummer eve, Christmas). As for prescription medicinal products the promotional communication is more linked to public occasions linked with specific diseases – international disease day (for example – world diabetes day on November 14th), physician congresses, patient organisation activities.

Pharmaceutical producers whose product portfolio is mostly combined of prescription products are more dependent on the key opinion leader (physician and pharmacist) attention towards the company, thus increasing the public relations role in such cases. In Latvian pharmaceutical market most commonly used public relation practices includes sponsoring and partaking into the public events related to specific diseases, patient groups, physicians, therefore building and maintaining close relations with patient, physician and pharmacist organisations. Also, sponsorship of public entities (sport teams, culture events, universities) are being used to raise company recognition among the public and potential customers. As outlined by nongovernmental organisation Health projects for Latvia research done in 2018 such public relation activities may be abused as hidden promotion, therefore pharmaceutical producers and distributors should be discreet and precautious with such public activities. Nonetheless the Association of International Innovative Pharmaceuticals Producers and Latvian Generic Medicines Association that represent and promote activities of international pharmaceutical producers have implemented a *Good Practice and Code of Ethics* for their members that is well respected and acts as a self-regulating tool for the promotion of pharmaceutical products in Latvia.

With the development of mobile technologies, everyday use of smartphones and increasing mobile technology skills among the elderly population the potential of health care mobile applications increases (Palmer, M. J., Barnard, S., Perel, P., Free, C., 2018). The situation is also recognised by pharmaceutical entrepreneurs by designing mobile application for health issues related to their product and service portfolio. Such trend is also noted in Latvian pharmaceutical market where multiple mobile applications are available for end customers and physicians – retail pharmacy chain applications with maps outlining pharmacy locations, promotions, available stock and contact forms; pharmaceutical manufacturer applications for specific patient groups that offer tracking of pharmaceutical product use, health stats, sharing reminders and recommendations. It should be noted that the elderly population might not be convenient of using mobile applications in foreign languages and therefore pharmaceutical producers and distributors willing to develop and offer mobile applications for patients in Latvia should consider also including Latvian language in the mobile application.

Although the need for digitalisation skills and competences has already been studied and addressed for multiple industries, for example for Fintech sector (as example) by Kuzmina-Merlino and S.Saksonova (2018), further in depth studies of digitalisation trends and opportunities in pharmaceutical industry should be addressed.

Conclusions, proposals, recommendations

1. Prescription pharmaceutical products make up the majority of Latvian pharmaceutical market by value and volume. The pricing level of prescription pharmaceutical products in Latvia is below the average of pricing level in other European markets that could be explained by the strict regulation on promotion activities and importance of pricing level in state reimbursement system. Over the counter pharmaceutical product pricing level, on the contrary, is above the average pricing level in other European markets. Due to low market share of local pharmaceutical producers' Latvian pharmaceutical market is quite dependent on the product imports from foreign producers, outlining an opportunity for pharmaceutical distributors.

2. Latvian pharmaceutical market is keen to accept products in multilanguage and foreign packs, thus giving the pharmaceutical producers and distributors chance to combine the demand from multiple markets and optimise the production costs.
3. Pharmacists, as integral part of the pharmaceutical product distribution chain and acting as key opinion leaders to end customers, gives high importance to product quality and price, outlining the importance of these factors during the promotion and public relations. Also, products with practical design and more units per pack are valued higher than product with simple design and small units per pack.
4. Web-pharmacy role have been increasing during recent decades outlining its significant role during the Covid-19 pandemic. Also, mobile applications are being introduced into pharmaceutical market offering them to end customers (pharmacy locations, promotions, available stock, contact forms), physicians and specific patient groups (product use tracking, health stats, reminders, recommendations).
5. Latvian Pharmaceutical market significant vertical integration outlines several major stakeholders with strong position in the market, meaning that by choosing one of the major local distribution companies pharmaceutical product producers have deeply integrated access to the market.
6. Over the counter pharmaceutical product promotion activities are affected by seasonal trends; prescription product promotion, on the other hand, is strictly regulated and is targeted towards key opinion leaders and patient organisations, thus increasing the importance of public relations activities.
7. With respect to continuous digitalisation processes in multiple industries, also including pharmaceutical, there is a potential for further marketing component improvements and alignment with the needs of digital consumers. In order to keep up with the digitalisation trends pharmaceutical companies are expected to further invest into their employees and improve their digital skills and competence.
8. Digitalisation skills and competences has already been studied for multiple industries, still further digitalisation trends and specific needs of pharmaceutical industry should be addressed in more details during future studies.

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