



Munich Personal RePEc Archive

Drop-Shipping – A Business Model Without Holding Inventory: A Case Study of Online Store

Barcs, Cristian and Pop, Izabela Luiza and Toader, Cezar
and Ighian, Diana

Technical University of Cluj-Napoca

31 May 2022

Online at <https://mpra.ub.uni-muenchen.de/118638/>
MPRA Paper No. 118638, posted 10 Oct 2023 07:05 UTC

Drop-Shipping – A Business Model Without Holding Inventory: A Case Study of Online Store

Cristian BARCS

Technical University of Cluj-Napoca, North University Center of Baia Mare, Romania, cristibarcs@yahoo.com

Izabela Luiza POP

Technical University of Cluj-Napoca, North University Center of Baia Mare, Romania, pop.izabela.luiza@gmail.com

Cezar TOADER

Technical University of Cluj-Napoca, North University Center of Baia Mare, Romania, cezar.toader@gmail.com

Diana IGHIAN

Technical University of Cluj-Napoca, North University Center of Baia Mare, Romania, dianaighian@yahoo.com

Abstract

Drop-shipping is a recently new, commonly used fulfilment method, especially in e-commerce sites. By applying drop-shipping, many businesses and e-commerce sites have the possibility to reach a much greater customer base, as well as manage their business without holding, in most cases, any product as stock. This order fulfilment method has made possible the existence of drop-shipping as a business model, people from all over the world being able to sell items internationally, without ever seeing them. Also, the start-up cost for such a business is rather low, since there is no need for deposit means, a physical store, or even employees. However, the low barrier of entry this business model determines many people to try it, which is why the competition is very high. Even though the business looks easy, the low barrier of entry and the great competition means that only a small fraction of the new drop-shipping businesses get profitable. This paper will analyze what are the odds of turning such a business profitable while also looking at which are the pillars of drop shipping and most importantly, how the people who succeed are doing it. The proposed theoretical model is illustrated through a case study conducted at a drop-shipping store that is selling back posture correctors. The results of the study are useful both, for practitioners and scholars interested in the topic of drop-shipping.

Keywords: drop-shipping, e-commerce, business, management

Introduction

In recent years, the Internet development provided many advantages for both, consumers and retailers. Ease of shopping from home, economy of time and higher access to information related to goods and prices are just some of the most important reasons for which consumers' preference for buying products online is constantly growing (Ma et al., 2017).

On the other side, the expansion of the Internet created great opportunities for retailers and determined many companies to use online retail channels for distributing their products (Dennis et al., 2017). By selling products online, retailers have the possibility to reach a larger geographical area, over cross physical boundaries, increase their market share, improve the sales volume (Li et al., 2020) and even have a store without huge capital investments in inventories (Hovelaque, 2007).

These advantages, together with the technological improvements, lead to a rapid expansion of e-businesses and online retail markets during the last years (Shi et al., 2020). For instance, before the COVID-19 pandemic, the online retail sales were around 19.5% of the total retail sales in China and 11.2% in the U.S. (Shi et al., 2020). Since online retail sales are in a

Cite this Article as: Cristian BARCS, Izabela Luiza POP, Cezar TOADER and Diana IGHIAN “Drop-Shipping – A Business Model Without Holding Inventory: A Case Study of Online Store” Proceedings of the 39th International Business Information Management Association (IBIMA), 30-31 May 2022, Granada, Spain, ISBN: 978-0-9998551-8-8, ISSN: 2767-9640

continuous growth (Kamalapur & Lyth, 2020), distributing products through online channels is a must for any company that want to successfully cope with the changing environment (Dennis et al., 2017).

However, beside bringing important opportunities for development, the Internet created new challenges for retailers, such as: increased competition (Dennis et al., 2017), problems related to organization and order flow management (fulfilling orders quickly and correctly) (Hovelaque, 2007), demand forecasting and information asymmetry (Li et al., 2020).

For this reason, before starting an e-business it is very important to analyze different models of organization and select the one which better correspond with the other business characteristics. According to Hovelaque (2007), e-commerce is organized under three forms:

- *store-picking*: the customer receives the products ordered online from the shelves of the closest physical shop to his address.
- *dedicated warehouse-picking*: the customer receives the products ordered online from warehouses specially created by the retailer for Internet orders.
- *drop-shipping*: the retailer receives the order and sends it to the supplier who delivers the products directly to the customer.

The first two models require a high investment in stocks and the integration of “front-end order taking process with back-end order fulfillment process” which is considered quite difficult by many retailers (Kamalapur & Lyth, 2020). Therefore, more and more firms focus their attention on using drop-shipping strategy, but plenty of them fail, despite the great advantages of this business model.

In this context, the aim of this paper is to analyze what are the odds of turning a drop-shipping business profitable while also looking at which are the pillars of drop shipping and most importantly, how the people who succeed are doing it. Since e-commerce will keep growing the following years, it is important for any business, entrepreneur, and business consultant to know how they can use the power of drop shipping in their or their client’s interest.

The first part of the paper presents the results of the theoretical research in the field of drop-shipping, while the second part is dedicated to a case study that highlight how the proposed model of four pillars can be practically applied. Finally, the main results of the study are summarized, along with the research limits and future research suggestions.

Methods

The main research questions of the study were: (1) which are the pillars of drop-shipping? (2) what are the odds of turning a drop-shipping business profitable? (3) why are some companies successfully applying drop-shipping strategy while others not? (4) what are the key factors of using drop-shipping strategy profitably?

To answer these questions, a qualitative research methodology was used (Peinkofer et al., 2019). The first step was to find and review the most significant papers related to drop-shipping, published in the last years. To ensure a high quality of the data, we have search for drop-shipping articles published on the Web of Science platform. The theoretical information collected from literature review were used for proposing a four pillars model of drop-shipping. The second step consisted in checking how the proposed model can be practically applied. To reach this goal, a case study at a store that is selling back posture correctors was carried out.

Drop-shipping as a concept

What is drop-shipping and how does it work?

Drop-shipping strategy was initially used in the 19th century by catalog and mail order companies, but it became very popular only after the development of e-commerce (Cheong, et al., 2015; Gan et al., 2010). Nowadays, drop-shipping is a retail business model in which a seller creates an online store and receives orders for different products available on the store, without having the products in its own stock. After the order is received, the seller forwards it to the manufacturer, wholesaler, or another retailer, which is responsible for delivering the ordered products directly to the customer (Zeng & Xu, 2019). In drop-shipping supply chain, the retailer is responsible for marketing and receiving customer orders, while the supplier keeps

the stock of products and deliver the order to the customer (Gan et al., 2010). A fraction of the profit is shared by the online retailer with the manufacturer (Shi et al., 2020).

In practice, the drop shipping store is actually a website with its own domain and design. Potential customers arrive on the site from various marketing methods used by the entrepreneur. Ideally, a percent of these website visitors will be interested in the product, will add it to their cart and buy it. The order is then transmitted by the store owner directly to a manufacturer or a drop shipping fulfilment center that is the one holding stock of the merchandise the website is selling. Then the manufacturer or fulfilment center will ship the product directly to the customer, as seen in Figure 1.

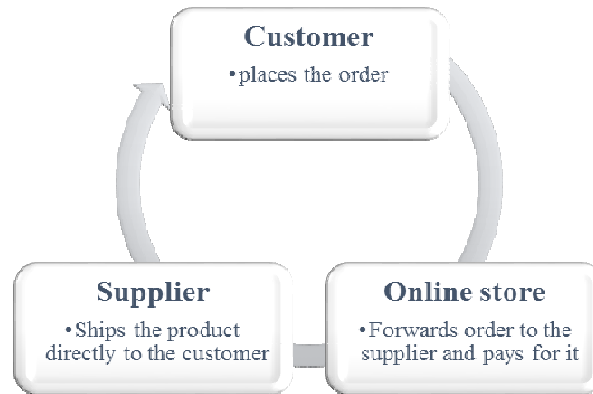


Fig 1. The drop-shipping model

Drop-shipping implies a virtual alliance between e-tailers and manufacturers / warehouse owners (Ayanso et al., 2006). Thanks to this, customers receive the order with the e-tailer's logo and label, which is why they are not aware of the fact that the retailer and supplier are two different companies (Yao et al., 2008). The main advantages of drop-shipping are:

- Logistics costs are smaller (Zeng et al., 2020) and the average profit tends to be higher by using drop-shipping channel than the traditional channel (Shi et al., 2020);
- Since logistics costs are smaller, the products can be sold at lower prices (Ma et al., 2017);
- E-tailers can focus more on marketing, sales and customer acquisition, without worrying about order fulfillment (Peinkofer et al., 2019);
- Huge investments in inventory are avoided and warehouse spaces are not needed (Ayanso et al., 2006);
- Drop-shipping can be used by retailers who have their own warehouses for expanding their product offer, while keeping inventory costs unchanged (Li et al., 2019);
- The wholesaler will be faced with increased demand and can charge higher prices due to its higher involvement in fulfilling customers' orders (Ma et al., 2017).

The start-up phase

In detail, an entrepreneur first can choose a product he wants to sell and whether he will operate alone, with associates or even employees from the first day of the business venture. The next very important aspect is the budget he is willing to invest in the project. This will also be influenced by the choice of having or not other associates.

Then he uses his coding knowledge, a site building platform or he can even hire a programmer or expert to make him such a site. He then buys a domain for the site, pays a hosting provider and he can also buy a logo (if he is not willing to create it). The site must be able to present the product in such a way that the potential customers will move on to the purchase phase. The entrepreneur must also consider how can he market the product, this meaning both the creation of advertisement material AND sending it in the front of the right audience to attract sales.

Commonly used platforms

Every drop-shipping site is (or at least should be) different. But what many have in common is the platforms that they use. The first platform drop-shippers use is the wholesale site, where they can find suppliers for different products. They must use it to determine what kind of product will they sell. The most common wholesale site for drop-shipping is AliExpress (Li et al., 2020). There are many products and suppliers to be chosen from, since AliExpress is a marketplace for mostly Chinese suppliers that sell products one by one and still at an amazing price.

The second platform drop-shippers go to is the website creation tool. In order to have a successful drop-shipping store every entrepreneur needs a professional site, and since learning to code a site from scratch takes way more time and effort, the most used platform for the building of such a site is Shopify. It offers the site building functionalities while also hosting the site once it is built for a fixed fee. When opening a new store, Shopify also gives the retailer the possibility to buy the domain directly from them. Also, it is worth mentioning Shopify Payments. Anyone selling anything online needs to collect money from their customers, and Shopify also gives the retailer the possibility to receive the money for any sold product. Last but not least, Shopify also offers a 14-day trial for anyone willing to test the features without any expenses. The methods discussed in this paper mostly refer to a business model commonly known as Shopify Drop-shipping.

	Basic Shopify All the basics for starting a new business	Shopify Everything you need for a growing business	Advanced Shopify Advanced features for scaling your business
Monthly price	USD \$ 29 /mo	USD \$ 79 /mo	USD \$ 299 /mo
SHOPIFY PAYMENTS			
Fraud analysis	✓	✓	✓
Online credit card rates	2.9% + 30¢	2.6% + 30¢	2.4% + 30¢
In-person credit card rates	2.7% + 0¢	2.5% + 0¢	2.4% + 0¢
Additional fees using all payment providers other than Shopify Payments	2.0%	1.0%	0.5%

Fig 2. The Shopify pricing plan, as of January 2022

Source: <https://www.stylefactoryproductions.com/blog/shopify-fees>

The third platform we will refer to is the one most retailers use for marketing, especially drop-shipping products – Facebook. Recently, drop-shippers also intensively use Instagram since the audience is younger and has a higher chance to impulsively buy products. On Facebook, the retailers create an account and a page for their business which then lets them use the Facebook Business Manager in order to launch paid ad campaigns and put their advertisements in front of their target audience. Facebook has a very good algorithm which in term brings good (up to amazing) amounts of sales to those who know how to use it. There are also experts on the internet who offer Facebook ads managing services for a fee, so retailers have plenty of options in managing their ads.

The four pillars of drop-shipping

The product

The starting point of almost any business is determining what kind of product/service it will offer in exchange for a price or fee. In the drop-shipping business model things are no different, so choosing a product might be the most important step for this kind of business. Drop-shipping is based on delivering a product that presents itself with such a wow-factor that will make the potential customers believe it is the only place they can buy it from, without even bothering to price check on other

websites or stores. Therefore, it can be said that usual, normal, and easy to find products are not a good option for a drop-shipping website's catalogue.

A very important feature of a product that is to be drop-shipped is that it needs to either solve a problem for the potential customer or undercut the price of a product of known good quality. An important aspect of the product the retailer chooses to sell is the price. To be profitable, the price of the products the store would sell needs to be able to make the profit margin as big as possible to cover different fees, hosting for the site, in some cases, salaries, yet most importantly – marketing costs. To achieve such high profit margins, the products need to have a high perceived value, yet a low cost. Therefore, a drop-shipping business needs to get its product supplies from wholesalers that can ship items one by one at a minimal price.

The website

This represents the electronic version of a brick-and-mortar type of store. The same principles should be applied to achieve proper results. The products should be presented in a clear and concise way, the price should be easy to see, and the theme of the site should match the niche of the product it sells. The website should have all the parts of any website, including an SSL certificate (which is very important since customers will not fill in their credit card details to an unsafe site), a Privacy Policy and Terms of Service. Other important pages for a drop-shipping store would be a shipping and refund policy page, as well as an "About Us" page describing the goal of the website. If possible, the customer should also be able to easily contact the retailer for any further problems, ideally via an instant chatting feature.

However, even though the website is one of the pillars of the store, it is not the most important and can often be improved. A drop-shipping store can have good sales even with a modest website, as long as the other pillars of drop-shipping are in proper place. The way the efficiency of the website can be measured is the conversion rate. Conversion rates are calculated by dividing the number of sales (conversions) with the number of site visitors, as seen in the following formula:

$$\text{Conversion rate} = \frac{\text{Number of sales}}{\text{Number of site visitors}}$$

The advertisement

The advertisement will most likely be the first thing to strike the target audience. In drop-shipping, a proper advertisement should be a video that showcases the use of the product that is for sale. The most important part of the advertisement is the first 3 seconds, since those are the ones that will determine whether the potential customer goes to the website or moves on. With a good advertisement that makes the target audience quickly gain interest, even a mediocre product can be sold in good numbers. However, having a good product AND a good advertisement for it can almost mean the product will sell itself. Much of the advertising is also done on the website. An important and sometimes overlooked aspect is that the link in the advertisement on the platform it is delivered to the customer should link directly to the product page and NOT to the website's home. The way the product description is written, the images and schemes explaining the way the product works will play an important role in the visitor's decision to purchase.

The marketing

The marketing pillar of the basic drop-shipping business is what commonly consumes most of the capital. It takes great financial effort to reach the desired target audience, especially in high volumes, via the before-specified Facebook Ads method. The Facebook Ads have one major flaw: the cost. Due to very high competition and the fact that Facebook shows ads in front of the people using a bidding algorithm, it means that those who are willing to pay the most are the ones that get their advertisements delivered in front of their audience most.

However, that is not the only way to reach the target audience for any kind of product. There are also ways to market the product in front of the right audience without such a high cost or in some cases even for free. Such methods are: SEO (Search Engine Optimization), Social Media Marketing, Email marketing, Affiliate offers, Giveaways etc. These methods often involve smaller capital cost. Even if they most likely do take more time to do or they don't give a result as good as Facebook advertisements, they provide a more sustainable ambiance for the newly opened drop-shipping website.

Disadvantages of drop-shipping

Despite providing many advantages for e-retailers, wholesalers and customers, drop-shipping has also several shortcomings. These are detailed below.

Low margins

Due to the many expenses a drop-shipping store may have, in order to roll in a decent amount of sales, the capital spent on marketing quickly increases. This can lead to loss of product margin that negatively affect financial performance of the e-tailer (Park, 2017).

Inventory Issues

Sometimes not holding the inventory can generate problems since the retailer does not have control over how the inventory is managed (Cheong, et al., 2015). Many drop-shippers have found themselves with products not shipping out because the supplier ran out of stock (Kamalapur & Lyth, 2020). This fact generates a negative impact on the e-tailer's business because the customers can spread bad reviews about it and cancel their orders.

Shipping Complexities

Since most suppliers ship directly from China, shipping times are higher than usual, national shipping times (Chiang & Feng, 2010). Then there's also the customs clearance the package must go through in many countries in order to reach the final customer's hands.

Supplier Errors

The e-tailer doesn't have the possibility to monitor and control the delivering process performed by the supplier (Yao et al., 2008). Even if the inventory is plenty and the supplier ships the product fast and in good packaging, due to human error, packages may still get mixed up, get lost on their way or simply the product can be broken. During Christmas and other major holidays, the risk of delivery failure is increased (Zeng et al., 2020). Therefore, all these situations must be handled by the e-tailers in the most professional way possible, because they are responsible for any errors that occur in the process of fulfilling customers' orders (Cheong, et al., 2015).

Fragmented Order

A single customer order may include more products, from different manufacturers. This leads to higher shipping costs and fragmentation of the order delivery, which increase the customer dissatisfaction (Khouja, 2001).

Case study

Overview

In this case study we will take a look at a drop-shipping store that is selling back posture correctors. We will do a short breakdown of exactly the pillars we discussed before. The site is <https://posturecorrectors.com>.

Two very common ways to identify a drop-shipping store are looking at its "Shipping Policy" page and searching the product it sells on common wholesale platforms (most commonly AliExpress). In this case you may find the posture correctors on AliExpress as in Figure 3. One more sign is that in the footer of the website we will find a "Powered by Shopify" badge, as seen in the red rectangle in Figure 4. And if we take a look at the shipping policy, since drop-shipping products ship directly from China, the shipping time will take around 20 business days, time frame to which we can see that the site adheres.

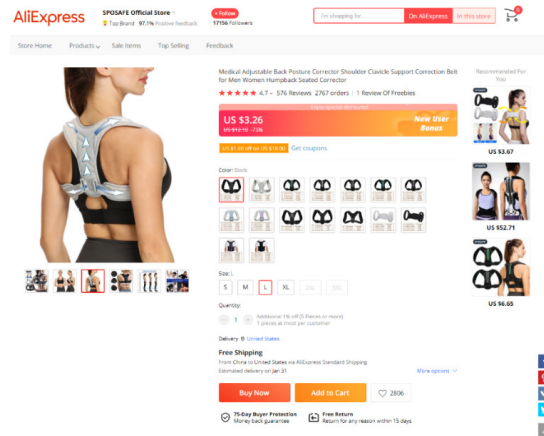


Fig 3. The product of the drop-shipping store found on the wholesaler marketplace AliExpress

Source: <https://www.aliexpress.com>

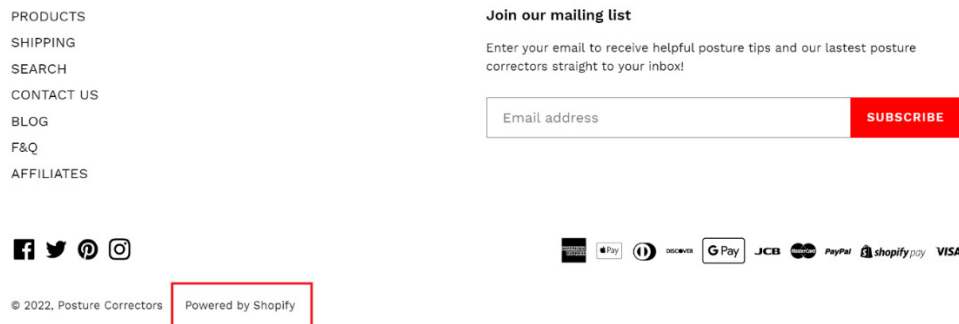


Fig 4. The Powered by Shopify badge

Source: <https://posturecorrectors.com>

The product

Posture correctors are as of the time of writing of this article, considered a dead product since the market has mostly been saturated. However, it is still a relevant example. It is a good choice for multiple reasons we discussed earlier: it solves a problem, it is easily found on wholesale Chinese supplier marketplaces like AliExpress and the perceived value is much higher than the cost of the product. Besides, the product is not easy to find in shopping centers. Therefore, except the fact that as of now the market was saturated with this product, this would be the perfect example of an item that could make a great amount of sales (and actually did).

In Figure 4 we can see the cost of the product when bought from the Chinese supplier: \$3,26 with shipping being free. Then in Figure 5 we can see the price the drop-shipping store is charging for one posture corrector, which is \$24,99. That means \$21.73 are left to cover the other expenses. This is the profit margin that drop-shipping stores should aim for.



Fig 5. The posture corrector product page

Source: <https://posturecorrectors.com>

The website

As explained in chapter 3, subchapter 2 of this paper, the website is the one piece of the drop-shipping business model that is the most forgiving to the mistakes beginner drop-shippers are prone to do. Of course, no one will buy from a site that does not inspire trust, and this is no exception. However, the core elements are correctly made. There are only a few colors used, only one being the theme color, blue. The website is easy to browse via the navigation bar at the top. There is also a creative logo that gives a brand name to the store. Once a customer arrives on the site's homepage (Figure 6), there is no doubt about the niche the store addresses, that being posture correctors. As seen in the navigation bar, the store also has a "Shipping" page, a page for "Affiliates" (commission-based sales), FAQ (frequently asked questions) and a "Contact Us" page to address any further questions. Even though there is room for improvement, the core functionalities of the site are very much present.

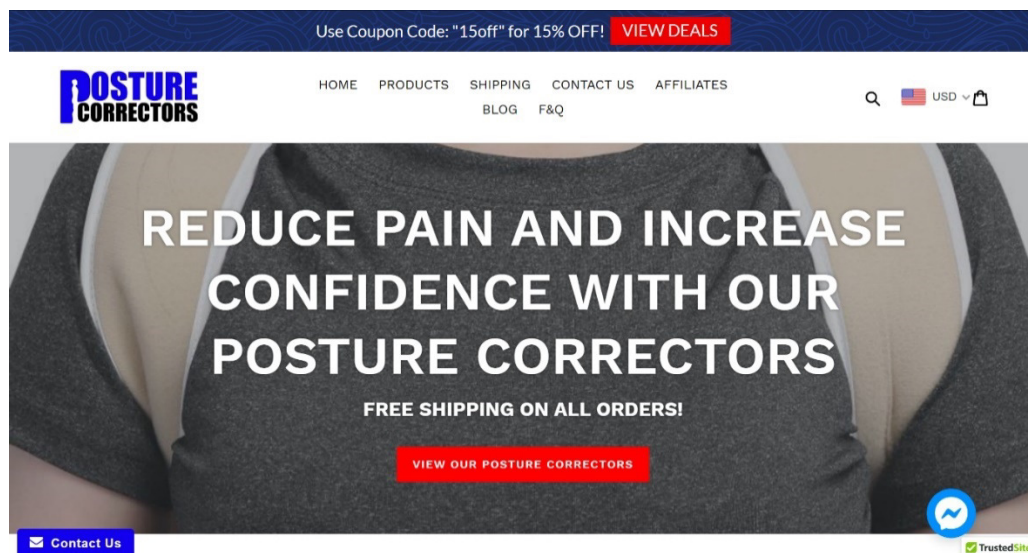


Fig 6. The homepage of a drop-shipping store

Source: <https://posturecorrectors.com>

If we also take a look at the product page (Figure 7), we can see simple, concise writing, plainly describing the features of the product. Also, under the main product picture we see other pictures that showcase every way to use the product, which helps the potential customer empathize with those already using the product. Under the title of the product, we see the price, and add to cart button and some trust badges in order to motivate the visitor to become a customer.

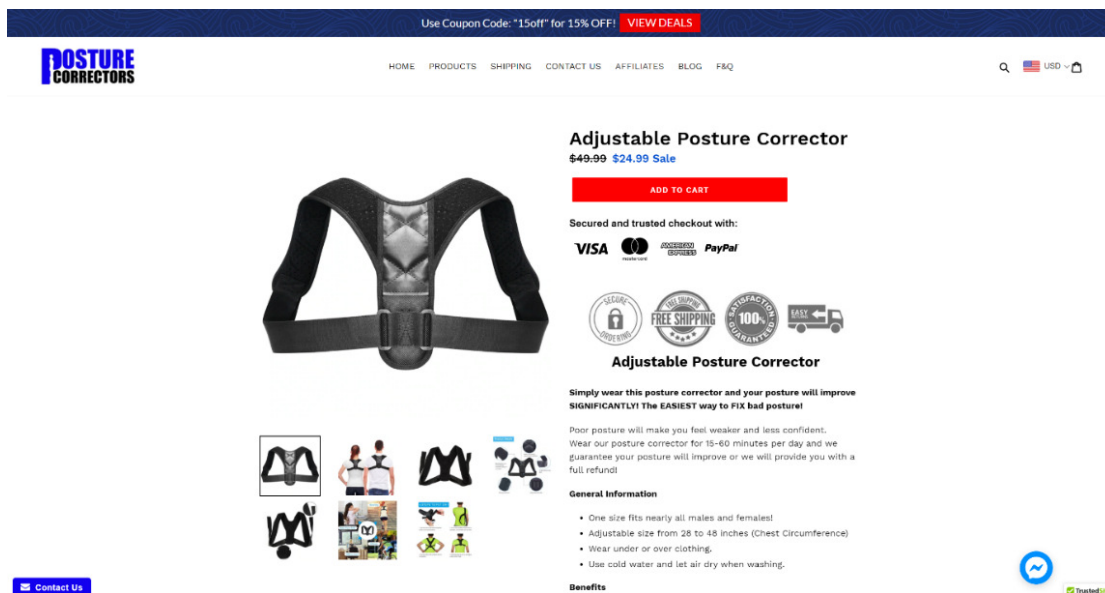


Fig 7. The product page of a drop-shipping store

Source: <https://posturecorrectors.com>

The advertisement

The first thing that the target audience sees for the posture corrector advertisement is a question that is to the point in a rather modern looking video introduction. The product is exactly as on the site and the video easily explains about how the product could help the customer.

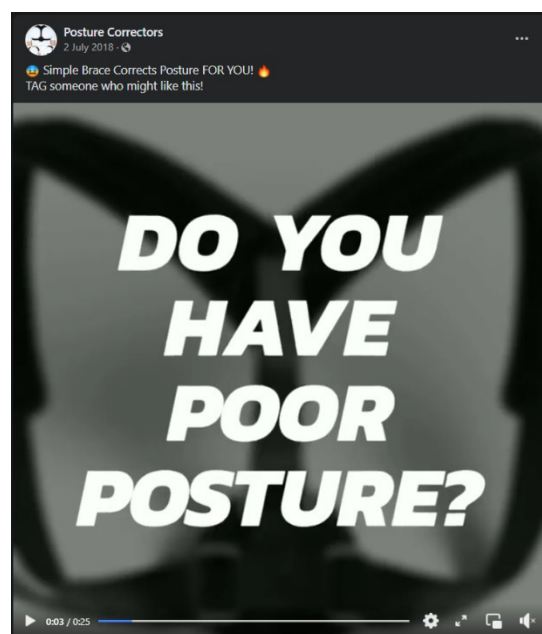


Fig 8. The product page of a drop-shipping store

Source: https://www.facebook.com/NewPostureCorrectors/?ref=page_internal

The marketing

Due to some privacy policies, it is very hard to gain access to the marketing channels of the store analyzed for this case study. However, we can estimate the target audience for this specific product. It would mostly consist of people of age above 30, with a decent income to allow themselves to impulsively buy products, with interest in health and natural remedies.

Conclusions

In conclusion, the drop-shipping business model is one of the most recent ways to start a business or test a product while using the minimal capital and basically no warehousing space. It allows even young entrepreneurs to start a business venture in order to learn the basics of marketing and delivering good value to the market. Even though there is a low barrier of entry for a drop-shipping business, it is not easy to start a profitable store, considering it either takes a large start-up capital for fast marketing, or just a great amount of time to invest in other, less costly marketing methods.

However, the purpose of this paper was to show that a store does not have to be perfect in order to work properly. Anyone can become an entrepreneur if there is enough will to develop the right set of skills and turn a virtual website into an income stream.

The most important limitation of drop-shipping is the dynamism of the market and the development of new products. Every day there are new products, new marketing channels and new needs in the market. Whoever manages to understand those elements and make a store that keeps track of all of them will find this business to be very profitable.

References

- Ayanso, A., Diaby, M. and Nair, S.K., 2006. Inventory rationing via drop-shipping in Internet retailing: A sensitivity analysis. *European Journal of Operational Research*, 171(1), pp.135-152.
- Cheong, T., Goh, M. and Song, S.H., 2015. Effect of inventory information discrepancy in a drop-shipping supply chain. *Decision Sciences*, 46(1), pp.193-213.
- Chiang, W.K. and Feng, Y., 2010. Retailer or e-tailer? Strategic pricing and economic-lot-size decisions in a competitive supply chain with drop-shipping. *Journal of the Operational Research Society*, 61(11), pp.1645-1653.
- Dennis, Z.Y., Cheong, T. and Sun, D., 2017. Impact of supply chain power and drop-shipping on a manufacturer's optimal distribution channel strategy. *European Journal of Operational Research*, 259(2), pp.554-563.
- Gan, X., Sethi, S.P. and Zhou, J., 2010. Commitment-penalty contracts in drop-shipping supply chains with asymmetric demand information. *European Journal of Operational Research*, 204(3), pp.449-462.
- Hovelaque, V., Soler, L.G. and Hafsa, S., 2007. Supply chain organization and e-commerce: a model to analyze store-picking, warehouse-picking and drop-shipping. *4OR*, 5(2), pp.143-155.
- Kamalapur, R. and Lyth, D., 2020. Impact of stockout compensation in e-commerce drop-shipping supply chain. *Operations and Supply Chain Management: An International Journal*, 13(1), pp.82-93.
- Khouja, M., 2001. The evaluation of drop shipping option for e-commerce retailers. *Computers & Industrial Engineering*, 41(2), pp.109-126.
- Li, G., Zhang, X. and Liu, M., 2019. E-tailer's procurement strategies for drop-shipping: Simultaneous vs. sequential approach to two manufacturers. *Transportation Research Part E: Logistics and Transportation Review*, 130, pp.108-127.
- Li, G., Zheng, H. and Liu, M., 2020. Reselling or drop shipping: Strategic analysis of E-commerce dual-channel structures. *Electronic Commerce Research*, 20(3), pp.475-508.
- Ma, S., Jemai, Z., Sahin, E. and Dallery, Y., 2017. The news-vendor problem with drop-shipping and resalable returns. *International Journal of Production Research*, 55(22), pp.6547-6571.
- Park, C., 2017. A partial backordering inventory model with a drop-shipping option under purchase dependence. *Asia-Pacific Journal of Operational Research*, 34(04), p.1750016.
- Peinkofer, S.T., Esper, T.L., Smith, R.J. and Williams, B.D., 2019. Assessing the impact of drop-shipping fulfilment operations on the upstream supply chain. *International Journal of Production Research*, 57(11), pp.3598-3621.
- Shi, S., Sun, J. and Cheng, T.C.E., 2020. Wholesale or drop-shipping: Contract choices of the online retailer and the manufacturer in a dual-channel supply chain. *International Journal of Production Economics*, 226, p.107618.
- Yao, D.Q., Kurata, H. and Mukhopadhyay, S.K., 2008. Incentives to reliable order fulfillment for an Internet drop-shipping supply chain. *International Journal of Production Economics*, 113(1), pp.324-334.

- Zeng, N., Zeng, D., Liu, A. and Jin, L., 2020. Drop-shipping and backup-sourcing strategies under the risk of supply disruption. *IEEE Access*, 8, pp.169496-169515.
- Zeng, K. and Xu, X., 2019. Supply chain choice with financial constraints on the internet: Drop shipping vs. traditional channel. *Computers & Industrial Engineering*, 137, p.106093.