

Risks and Eventualities of Online Purchase of Medicinal Products in India: A Critical Evaluation

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Abstract

In India, the healthcare system has been transformed by the rise of online platforms that sell pharmaceutical items. These platforms provide customers with ease and accessibility, completely changing the way healthcare is done. But with these advantages come dangers and possibilities that need to be carefully considered. In this research paper, we will explore the many ramifications of buying medicines online in India. This paper investigates the many dangers of purchasing medical supplies online, including problems with product safety, authenticity, quality, and regulatory compliance, by drawing on a thorough analysis of previous research as well as regulatory frameworks and case studies. The report goes on to discuss how these dangers can affect healthcare systems, public health, and the health of consumers.

In order to address the dangers presented by unlicensed and dishonest online sellers, this study examines the present regulatory framework in India that regulates internet pharmacies. It finds loopholes and difficulties in enforcement methods and stresses the necessity for strict rules. Also discussed are the elements that influence decision-making and trust dynamics as they pertain to the online purchase of medical items, as well as consumer views, attitudes,

and behaviours in this regard. To determine the frequency and effect of online purchases of medical products, this study uses a mixed-methods strategy, integrating qualitative findings from interviews with healthcare providers, regulatory bodies, and consumers with quantitative data analysis. This research seeks to provide a deeper knowledge of the intricate relationship between online commerce, healthcare access, and patient safety in India by using triangulation of data. This study adds to the existing body of knowledge in the fields of healthcare regulation and consumer protection by providing a critical analysis of the potential dangers and outcomes linked to the online purchase of pharmaceuticals. To guarantee the secure and moral supply of pharmaceuticals in the digital age, it is critical that regulatory agencies, healthcare stakeholders, and internet platforms work together.

Keywords – Online purchase, Medicinal products, Risks, Eventualities, Consumer health

Introduction

The purchasing of pharmaceutical items is only one area that has been revolutionised by the rise of online platforms in India's commerce. Consumers seeking healthcare goods and services now enjoy more ease and accessibility because to the growth of internet connection and the rising popularity of e-commerce. There are a number of risks and difficulties associated with buying medications online. This introduction lays the groundwork for a critical assessment of the potential hazards and outcomes linked to the online purchase of pharmaceuticals in India.

There has been a meteoric rise in the use of e-commerce platforms and online pharmacies in India that provide a broad variety of pharmaceuticals in the last few years. The appeal of reduced pricing and doorstep delivery, together with rising internet usage and shifting customer tastes, have contributed to this trend. While there's no denying the ease of shopping online, there are legitimate worries about patient safety, product legitimacy, and quality.

Concerns about getting low-quality or counterfeit pharmaceuticals are common when people buy them online. Online purchases provide a certain level of privacy, but dishonest sellers may use this to their advantage by selling fake medications, putting patients at risk and making antibiotic resistance worse. Concerns over the illegal selling of prescription drugs without legitimate prescriptions have arisen due to the absence of strict rules controlling

internet pharmacies in India. This has brought up worries regarding patient safety and regulatory compliance.

The online purchase of pharmaceutical items raises concerns about product safety and quality, but it also raises issues with patient education, prescription adherence, and pharmacovigilance. It is important to ensure correct prescription usage and monitor adverse drug responses, but online platforms may not provide the personalised counselling and support services that conventional brick-and-mortar pharmacies provide. Patient outcomes and public health monitoring might be jeopardised if people are discouraged from reporting adverse occurrences or seeking prompt medical care due to the anonymity of online transactions.

In light of the above, the purpose of this research article is to assess the potential benefits and drawbacks of buying medicines online in India. This research seeks to shed light on the complex consequences of online procurement for consumer health, healthcare delivery systems, and regulatory control by combining current literature, regulatory frameworks, and empirical data. This article aims to offer evidence-based policies and actions to preserve patient health, enhance regulatory control, and promote openness and accountability in the online pharmaceutical industry via a thorough examination of the existing situation.

The larger conversation in India about healthcare legislation, consumer protection, and digital health benefits from this study. Stakeholders can work together to mitigate the risks of online drug purchases and maximise the benefits of e-commerce to expand access to healthcare for all people by first recognising the most pressing issues and then developing strategies to overcome them.

Literature review

Each European country's regulatory framework dictates the potential and form of non-pharmacy trading (Oleszkiewicz et al., 2021) and distance selling (Seeberg-Elverfeldt, 2009). Only pharmacies with a valid licence have been able to provide non-prescription medications for mail order in the Czech Republic since 2006. Prescription drugs, compounded medical items, including prescription medications containing narcotics or precursors cannot be sent or delivered by mail. The provision of information services by a pharmacist or a pharmacy

technician is a mandatory obligation for a pharmacy that offers mail-order dispensing (Kolář, 2014).

The Hungarian government has allowed internet pharmacies to operate and oversees the sale of medicines since 2004. All online purchases must be made by a legitimate pharmacy with a physical facility, and customers must be 14 years old or older. Hungarian Parliament (2006) states that courier delivery of over-the-counter (OTC) pharmaceuticals is outlawed as of January 2022 due to a modification to the national statute on the distribution of medical goods. Pharmaceuticals may only be delivered to patients' homes by the professional personnel of the online pharmacy, whereas non-medicinal health goods, such nutritional supplements, can be supplied by third-party courier services.

In Poland, people have had the option to purchase over-the-counter medications by mail order from community pharmacies since 2007 (Polish Government, 2001). So long as they maintain their status as a stationary commercial organisation, internet pharmacies are able to legally function. No medicinal items that need a doctor's prescription will be distributed via this channel. While it is feasible to place an online prescription medicine order, the patient will still be required to pick up their medication at a local pharmacy, where the pharmacist will not administer the medication until they have received the patient's prescription. Since a legal modification was made in 2009 (Act No. 402/2009 Coll. amending and augmenting, 2009), authorised community pharmacies in Slovakia have been able to provide mail-order distribution of pharmaceuticals. Legally, mail-order pharmacies in Slovakia may only sell over-the-counter medications and medical equipment. Class I and IIa medical equipment, as well as self-testing diagnostic devices of Class B and C, may be distributed online by mail-order pharmacies and medical device businesses.

Many health risks must be considered as a result of the "self-medication culture" that has been growing for decades, including an increasing number of illicit drug dealers in the online space. These risks include, but are not limited to, unfounded health claims and misinformation, therapy suggestions that contradict evidence-based medical standards, adverse effects, disease progression, and widespread use of substances that are subject to strict regulation. The consequent "digital iatrogenesis" poses a serious threat to public health (Mackey and Nayyar, 2016), but it may be successfully countered if we have a better grasp of

people's reasons for self-medicating and their habits when it comes to buying medicines online.

Several studies have found that certain demographic characteristics are associated with online pharmacy use: age, education level, marital status, number of prescriptions, family income, and number of prescriptions filled (Atkinson et al., 2009; Brown and Li, 2014; Fittler et al., 2018; Jairoun et al., 2021). Little data measuring the effects of the coronavirus epidemic on the prevalence of online purchases and attitude changes towards internet pharmacies is available because only a relatively small number of national surveys have been conducted in the past two years (Bowman et al., 2020; Cherecheş and Popa, 2021; Jairoun et al., 2021; Sun et al., 2021; Soboleva et al., 2022). The effects of the COVID-19 pandemic on already rising patterns are evident, but whether or not the shifts in online pharmacy use will last beyond the epidemic is an open question.

Objectives of the study

- To conduct a comprehensive evaluation of the risks associated with the online purchase of medicinal products in India.
- To investigate the potential eventualities stemming from the risks identified.
- To critically analyze the existing regulatory frameworks governing online pharmacies and e-commerce platforms in India.

Research methodology

The researcher created a systematic questionnaire to find out how people feel about buying medicine online and what they do when they do it. Trust, contentment, perceived risk, and regulatory knowledge were among the metrics used. Make sure the survey tool has been tested and is trustworthy. Recruited a cross-sectional sample of Indian customers from a variety of demographic subsets using probability sampling methods. Statistical power and the generalizability of the results were guaranteed by ensuring an acceptable sample size. Depending on the convenience and choice of the intended respondents, distributed the survey either digitally or in person. Throughout the data gathering procedure, we made cautious to adhere to ethical principles including informed permission and data confidentiality. Took survey data and used suitable statistical methods to find patterns, correlations, associations,

and correlations between relevant variables, including factor analysis, regression analysis, correlation analysis, and descriptive statistics.

Data analysis and discussion

Table 1 – possible advantages

Arguments for possible advantages	Mean	Standard Deviation
Quick Easy Affordable	4.67	1.42
You can compare products more quickly and simply than at the drugstore.	5.29	1.24
When opposed to the drugstore, I have access to more resources.	3.29	1.30
Products may also be purchased by those who are unable to access a pharmacy.	3.57	1.44
Medications are accessible to me even after business hours	3.16	1.49
I have access to things that would be out of my price range otherwise.	3.87	1.26

Analysis and Discussion:

Quick, Easy, Affordable: Respondents rated this advantage relatively high (Mean = 4.67), indicating that they perceive online purchasing to be quick, easy, and affordable, which aligns with the convenience aspect of e-commerce.

Comparison Shopping: This advantage received the highest mean score (Mean = 5.29), suggesting that respondents highly value the ability to compare products quickly and easily online, highlighting the convenience and efficiency of online platforms in this regard.

Access to More Resources: This advantage received a moderate rating (Mean = 3.29), indicating that respondents perceive online platforms to offer access to a wider range of resources compared to traditional drugstores, albeit not as significantly as the ability to compare products.

Accessibility for Those Unable to Access a Pharmacy: This advantage received a moderate rating (Mean = 3.57), indicating that respondents recognize the importance of online pharmacies in providing access to medicinal products for individuals who may face barriers to accessing physical pharmacies.

Accessibility After Business Hours: This advantage received a relatively low rating (Mean = 3.16), suggesting that respondents are less inclined to prioritize accessibility of medications after business hours compared to other factors such as comparison shopping and affordability.

Access to Higher-Priced Items: Respondents rated this advantage moderately (Mean = 3.87), indicating that they perceive online platforms to offer access to items that may be otherwise out of their price range, suggesting a perceived affordability benefit of online purchasing.

According to the data, people love shopping online because it's easy, fast, and cheap. They also like how they can compare items without any hassle. Having access to higher-priced goods at perhaps reduced prices and making them available to individuals who cannot access physical pharmacies are two apparent positives, nevertheless. Online pharmacies and e-commerce platforms in the pharmaceutical industry may use these results to guide their marketing strategies and service offers, since they provide light on customer views of the benefits of purchasing medical items online.

Table 2 – Attitude towards buying online drugs purchasing and risk associated with it

Assessment of direct attitudes towards online drug purchasing as measured by the Risk Scale	Correlation Coefficient	p-value
Consistency before the COVID-19 pandemic:	- 0.426	0.000
Consistency after the COVID-19 pandemic:	- 0.481	0.000
Future purchase probability	- 0.585	0.000

Analysis and Discussion:

Consistency before the COVID-19 Pandemic: The negative correlation coefficient of -0.426 with a p-value of 0.000 indicates a statistically significant negative correlation between consistency in attitude towards online drug purchasing before the COVID-19 pandemic and the perceived risk associated with it. This suggests that individuals who were less consistent in their attitudes towards online drug purchasing before the pandemic tended to perceive higher risks associated with it.

Consistency after the COVID-19 Pandemic: Similarly, the negative correlation coefficient of -0.481 with a p-value of 0.000 indicates a statistically significant negative correlation between consistency in attitude towards online drug purchasing after the COVID-19 pandemic and the perceived risk associated with it. This implies that individuals who were less consistent in their attitudes towards online drug purchasing after the pandemic tended to perceive higher risks associated with it.

Future Purchase Probability: The negative correlation coefficient of -0.585 with a p-value of 0.000 indicates a statistically significant negative correlation between the future purchase probability of online drugs and the perceived risk associated with it. This suggests that individuals who were less likely to consider purchasing online drugs in the future tended to perceive higher risks associated with it.

In sum, the data shows that before and after the COVID-19 epidemic, and in terms of future purchase likelihood, there is a consistently negative link between views towards online drug shopping and the perceived danger connected with it. This suggests that those who aren't really committed to their views on online drug purchases and who aren't thinking about doing so in the future are more likely to think that there are hazards involved. These results highlight the need for focused interventions and communication tactics to alleviate concerns and boost customer trust in online medication purchase.

Conclusion

In an effort to provide light on consumer sentiments, regulatory frameworks, and healthcare governance implications, the research set out to conduct a thorough investigation of the potential dangers and outcomes of online pharmaceutical purchases in India. A number of important conclusions have been drawn from the study's multi-method research strategy, which included quantitative surveys, document analysis, and qualitative interviews, and which illuminate the intricate relationship among digital e-commerce, healthcare accessibility, and patient safety. The study uncovered several perceived benefits of buying pharmaceuticals online, such as accessibility, low prices, and a wide variety of items. While there are many advantages to purchasing pharmaceuticals online, there are also hazards to be aware of. Respondents voiced worries about product quality, authenticity, and regulatory compliance. Notably, the research found a strong negative association between people's views on the safety of buying drugs online and the likelihood that they would do so in the future, regardless of whether this was before or after the COVID-19 outbreak. This shows that those who aren't very consistent in their opinions and who aren't thinking about buying anything in the future are more likely to think that buying drugs online is risky.

The study also highlighted the need for regulatory enforcement and monitoring to reduce hazards and protect consumers' health in the online pharmaceutical sector. While there are rules in place to control internet pharmacies in India, there are still problems with monitoring compliance and enforcement. To rectify these deficiencies, internet platforms, healthcare stakeholders, and regulatory bodies must work together to fortify regulatory frameworks, increase transparency, and guarantee compliance with quality and safety standards. Given these results, the research suggests several courses of action that politicians, regulators, and industry players in India should take to encourage the use of safe and ethical online pharmaceutical procedures. Among them, we must work to raise knowledge about the pros and cons of buying drugs online, improve the systems in place to ensure compliance with regulations, encourage partnerships between online marketplaces and healthcare providers, and spread the word about what works when it comes to online shopping and medical treatment.

All things considered, this research adds to the ongoing conversation about healthcare regulation, consumer protection, and digital health in India by providing useful information for making educated decisions and implementing solutions based on evidence. Stakeholders may strive towards a stronger, more open, and patient-centered healthcare system that puts an emphasis on digital age consumer safety and well-being by tackling the possibilities and threats associated with online pharmaceutical transactions.

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