



Implementation of BPOM Regulation No. 8 of 2020 Concerning Online Drug Distribution at 4 Pharmacies in Purworejo Regency, Indonesia

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ARTICLE INFO

Keywords:

Food and drug supervisory agency
Drug distribution
Drug regulation
Pharmacist

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All authors have reviewed and approved the final version of the manuscript.

<https://doi.org/10.37275/amcr.v4i3.334>

ABSTRACT

The high number of internet users has an impact on the development of trade transaction models from conventional to electronic or online, known as e-commerce. The web-based or e-commerce business action plan in Indonesian regulations is called trading through electronic systems (PMSE). This study aimed to find out the implementation of BPOM regulation No 8 of 2020 concerning online drug distribution in 4 pharmacies in Purworejo Regency, Indonesia. This research is an observational study with a qualitative approach using information-gathering techniques through perception directly and meetings with several sources or witnesses related to this check. At the data analysis stage, the results of the interviews will be used as material for analyzed thematically by looking at and connecting with the problem formulation and research purposes. Interview data were analyzed using NVIVO 12 pro software. The implementation of BPOM Regulation No. 8 of 2020 related to the circulation of drugs distributed online in 4 pharmacies in Purworejo Regency has been running with a percentage of 79.55% in accordance with and 20.45% not in accordance with existing regulations. The implementation of BPOM Regulation No. 8 of 2020 concerning the Circulation of Drugs Distributed Online in pharmacies in Purworejo Regency has a significant impact on the supervision and safety of drug circulation through online platforms or e-commerce. In conclusion, based on the provisions contained in BPOM Regulation No. 8 of 2020 related to the circulation of drugs distributed online, most of the regulations have been implemented in the 4 pharmacies but improvements are still needed in the media used.

1. Introduction

Technological developments are currently developing rapidly, and this can be seen by internet users in Indonesia in 2017, increasing to 143.26 million people. The high number of internet users has an impact on the development of trade transaction models from conventional to electronic or online, known as e-commerce. The web-based or e-commerce business action plan in Indonesian regulations is called trading through electronic systems (PMSE). Currently, PMSE is a business that is generally utilized by the local area because it enjoys the benefits of a wide market reach and can reduce costs that

should be incurred. Internet trade exchange in the sale of drugs is unavoidable, especially now that many outsiders work with exchanges, for this case, through the web-based business stage. Accordingly, advances in technology and data can be misused by street drug sellers to sell drugs without marketing authorization or counterfeit drugs via the web. This is a very big risk to government assistance to the people of Indonesia. Since it is impossible to determine whether the product was made by the actual manufacturer, it cannot be guaranteed to be healthy, adequate, beneficial, or of high quality.¹⁻³



Drugs are one of the important elements to realize health in health administration. The distribution of drugs is subject to various regulations, even though drugs are not commodities like groceries. The Food and Drug Supervisory Agency (BPOM) has issued and disseminated regulation number 8 of 2020 concerning the control of drugs and food circulating online. According to the Deputy for product supervision, therapy, and drug control by the Food and Drug Supervisory Agency (BPOM), the free sale of counterfeit and illegal drugs has increased by 10%. According to estimates World Health Organization (WHO), the supply of illegal drugs will increase by 10% -20% in other Asian regions and 20%-30% in Africa, Latin America, and parts of South Asia. The duty of pharmacists to be involved in overseeing online drug delivery is critical to protecting the general public from the risk of harmful, effective, and poor-quality drugs being distributed online.⁴⁻⁷ This study aimed to determine the implementation of BPOM regulation No. 8 of 2020 concerning online drug distribution in 4 pharmacies in Purworejo Regency, Indonesia.

2. Methods

This research is an observational study with a qualitative approach using information-gathering techniques through direct perception and meetings with several sources or witnesses related to this examination. The first stage is to review regulations related to online drug distribution, and the next stage is a subjective examination to review the implementation of BPOM Number 8 of 2020 through interviews that investigate the role of pharmacists and community behavior. Related to online distribution of food and medicine. The research subjects were 4 pharmacists, and the people interviewed were sufficiently representative. The location and time of the research were carried out at the Pharmacy in Purworejo Regency, Indonesia. This study was

approved by the medical and health research ethics committee of the Faculty of Medicine, Universitas Sebelas Maret (UNS), Indonesia (No: 142/UN27.06.11/KEP/EC/2023).

This study uses primary data and secondary data in the observation process. Primary data was obtained from interviews with research subjects, while secondary data was obtained from library research and BPOM regulation No. 8 of 2020 concerning online drug distribution. At the data collection stage, it was carried out by means of field research or interviews. Interviews were conducted to find out the role of pharmacists and the behavior of people visiting pharmacies and buying medicines. At the data analysis stage, the results of the interviews will be used as material for thematic analysis by looking at and connecting with the problem formulation and research objectives. Interview data were analyzed using NVIVO 12 pro software.

3. Results and Discussion

Table 1 presents the Implementation of BPOM Regulation No. 8 of 2020 regarding the circulation of drugs that are circulated online at 4 pharmacies in Purworejo Regency, which have already sold drugs online. It was found that 79.55% were in accordance with BPOM Regulation No. 8 of 2020, and 20.45% were not appropriate. The implementation that is not yet appropriate is: the inclusion of the name of the pharmacy, pharmacy license, name of the owner of the facility, name of the pharmacist, number and license to practice pharmacists, location of the global positioning system, and complaints or reporting features in the media are not available. Even so, most of the provisions contained in BPOM Regulation No. 8 of 2020 regarding the circulation of drugs that are circulated online have mostly been implemented in the 4 pharmacies, but improvements are still needed in the media used.



Table 1. Implementation of BPOM Regulation No. 8 of 2020 regarding the circulation of drugs that are distributed online in pharmacies.

No	Description	Pharmacy	Results	BPOM regulations No. 8 of 2020	Information	
					Appropriate	Inappropriate
1.	Selling drugs online	Pharmacy A	√	Allowed	√	
		Pharmacy B	√		√	
		Pharmacy C	√		√	
		Pharmacy D	√		√	
2.	The media used to sell drugs online uses its own application	Pharmacy A	√	It is permissible to use one's own application or another party's	√	
		Pharmacy B	X		√	
		Pharmacy C	√		√	
		Pharmacy D	√		√	
3.	The media used to sell drugs online use other-party applications	Pharmacy A	√	It is permissible to use one's own application or another party's	√	
		Pharmacy B	√		√	
		Pharmacy C	√		√	
		Pharmacy D	√		√	
4.	Record and report drugs sold online	Pharmacy A	√	Required to record and report drugs sold online	√	
		Pharmacy B	√		√	
		Pharmacy C	√		√	
		Pharmacy D	√		√	
5.	Media used to sell drugs online include: Pharmacy name	Pharmacy A	√	Informed the name of the pharmacy	√	
		Pharmacy B	X			√
		Pharmacy C	√		√	
		Pharmacy D	√		√	
	Pharmacy license	Pharmacy A	X	Informed pharmacy license		√
		Pharmacy B	X			√
		Pharmacy C	X			√
		Pharmacy D	X			√
	Facility owner	Pharmacy A	X	Informed the name of the facility owner		√
		Pharmacy B	X			√
		Pharmacy C	X			√
		Pharmacy D	X			√
	Pharmacist name	Pharmacy A	X	Informed the name of the pharmacist		√
		Pharmacy B	X			√
		Pharmacy C	X			√
		Pharmacy D	X			√
	Pharmacist practice license and number	Pharmacy A	X	Informed number and license to practice pharmacist		√
		Pharmacy B	X			√
		Pharmacy C	X			√
		Pharmacy D	X			√
	Pharmacy address and telephone number	Pharmacy A	√	Informed of the address and telephone number of the pharmacy	√	
		Pharmacy B	X			√
		Pharmacy C	√		√	
		Pharmacy D	√		√	
Global positioning system location	Pharmacy A	X	Informed the location of the global positioning system		√	
	Pharmacy B	X			√	
	Pharmacy C	X			√	
	Pharmacy D	X			√	
Trade/generic name, active substance, strength, package contents, and product distribution permit number	Pharmacy A	√	Informed about the trade/generic name, active substance, strength, package contents, and product distribution permit number	√		
	Pharmacy B	√		√		
	Pharmacy C	√		√		
	Pharmacy D			√		
6.	The media used to sell drugs online can be accessed at any time	Pharmacy A	√	Can be accessed at any time	√	
		Pharmacy B	√		√	
		Pharmacy C	√		√	
		Pharmacy D	√		√	
7.	The medium used to sell drugs online provides prescription copy	Pharmacy A	√	A copy of the recipe is provided	√	
		Pharmacy B	√		√	
		Pharmacy C	√		√	



No	Description	Pharmacy	Results	BPOM regulations No. 8 of 2020	Information	
					Appropriate	Inappropriate
	functionality	Pharmacy D	√		√	
8.	The medium used to sell drugs online provides the system with backup data	Pharmacy A	√	Prepared system backup data	√	
		Pharmacy B	√		√	
		Pharmacy C	√		√	
		Pharmacy D	√		√	
9.	The media used to sell drugs online provides information on drug availability and drug prices	Pharmacy A	√	Provided information on drug availability and drug prices	√	
		Pharmacy B	√		√	
		Pharmacy C	√		√	
		Pharmacy D	√		√	
10.	Serving the communication function realtime between patient and pharmacist	Pharmacy A	√	Served communication in realtime between patient and pharmacist	√	
		Pharmacy B	X			√
		Pharmacy C	√		√	
		Pharmacy D	√		√	
11.	The medium used to sell drugs online provides the function of delivering electronic prescriptions and electronic prescription copies	Pharmacy A	√	Electronic prescriptions and copies of electronic prescriptions are provided	√	
		Pharmacy B	√		√	
		Pharmacy C	√		√	
		Pharmacy D	√		√	
12.	The media used to sell drugs online displays information on the obligation to submit original prescriptions of hard drugs by patients	Pharmacy A	√	Information on the obligation to submit the original prescription of hard drugs is displayed by the patient	√	
		Pharmacy B	√		√	
		Pharmacy C	√		√	
		Pharmacy D	√		√	
13.	The media used to sell drugs online has a complaint/reporting feature for every drug sold online	Pharmacy A	X	A complaint/reporting feature is provided for each drug sold online		√
		Pharmacy B	X			√
		Pharmacy C	X			√
		Pharmacy D	X			√
14.	The media used to sell drugs online sell class drugs: Free	Pharmacy A	√	Allowed	√	
		Pharmacy B	√		√	
		Pharmacy C	√		√	
		Pharmacy D	√		√	
	Limited free	Pharmacy A	√	Allowed	√	
		Pharmacy B	√		√	
		Pharmacy C	√		√	
		Pharmacy D	√		√	
Hard	Pharmacy A	√	Allowed by attaching the original recipe	√		
	Pharmacy B	√		√		
	Pharmacy C	√		√		
	Pharmacy D	√		√		
Precursor	Pharmacy A	X	Prohibited	√		
	Pharmacy B	X		√		
	Pharmacy C	X		√		
	Pharmacy D	X		√		
Implant preparations whose use requires the assistance of a health professional	Pharmacy A	X	Prohibited	√		
	Pharmacy B	X		√		
	Pharmacy C	X		√		
	Pharmacy D	X		√		
Narcotics and psychotropics	Pharmacy A	X	Prohibited	√		
	Pharmacy B	X		√		
	Pharmacy C	X		√		
	Pharmacy D	X		√		
15.	Online drug delivery is carried out directly to patients	Pharmacy A	√	It is permissible to go directly to the patient or use a third party	√	
		Pharmacy B	X		√	
		Pharmacy C	√		√	
		Pharmacy D	√		√	
16.	Online drug delivery to patients through third parties	Pharmacy A	√	It is permissible to go directly to the patient or use a third party	√	
		Pharmacy B	√		√	
		Pharmacy C	√		√	
		Pharmacy D	√		√	



No	Description	Pharmacy	Results	BPOM regulations No. 8 of 2020	Information	
					Appropriate	Inappropriate
17.	Third parties in shipping drugs online have legality	Pharmacy A	√	Third parties in shipping drugs online have legality	√	
		Pharmacy B	√		√	
		Pharmacy C	√		√	
		Pharmacy D	√		√	
18.	Documenting drug handover online	Pharmacy A	√	Documented	√	
		Pharmacy B	√		√	
		Pharmacy C	√		√	
		Pharmacy D	√		√	
19.	Third parties who make deliveries are prohibited from providing information about drugs	Pharmacy A	√	Prohibited	√	
		Pharmacy B	√		√	
		Pharmacy C	√		√	
		Pharmacy D	√		√	
20.	All online transactions are archived and traceable for a minimum of 5 years	Pharmacy A	√	Archived and traceable for a minimum of 5 years	√	
		Pharmacy B	√		√	
		Pharmacy C	√		√	
		Pharmacy D	√		√	
Total			132		105	27
Percentage			100%		79,55%	20,45%

Table 2 shows the capability of pharmacists. Table 2 shows that in the knowledge of BPOM regulation No. 8 of 2020, it is known that there are 2 pharmacists who do not know about these regulations (pharmacists 2 and 3), but they are already selling drugs online. This is because the system of the pharmacy is already in place to support so. It would be nice if online drug sales were also supported by knowledge of regulations. All pharmacists have sold drugs online and are of the opinion that they have done this in accordance with existing regulations. For obstacles in selling drugs

online, it is known that 3 pharmacists have problems, and there is 1 pharmacist who has no problems. The obstacles experienced in selling drugs online are communication with patients, patient locations are difficult to reach, and unable to submit original prescriptions directly. Supporting factors for increasing drug sales online from what pharmacists convey include: increasing information to patients, completeness of drugs, promotions, and improving patient systems and knowledge.

Table 2. Project map capability pharmacist.

No	Capability	Frequency	Pharmacist
1.	Knowledge of BPOM Regulation No.8 of 2020		
	Know	2	1,4
	Don't know	2	2,3
2.	Already selling drugs online It complies with regulations	4	1,2,3,4
3.	Constraints in selling drugs online		
	Communication to patients		
	The location of the patient is difficult to reach	1	1
	Cannot submit original recipe directly	1	3
		1	4
4.	Supporting factors to increase drug sales online		
	Increase information to patients	1	1
	Medicine supply	1	2
	Promotion	1	3
	Increase system	1	4
	Patient knowledge	1	4



Table 3 about opportunity pharmacist shows that the parties who support online services are management, the pharmacy team, and the community. Meanwhile, support in the workplace for online services is in the form of systems or applications

such as sales media, third parties to make deliveries, the team from the pharmacy itself, SOPs, Handphone facilities, internet, packing places, manuals, drug kits, and computers.

Table 3. Project map opportunity pharmacist.

No	Opportunity	Frequency	Pharmacist
1.	Parties that support online services		
	Management	3	1,2,4
	Pharmacy team	2	3,4
	Public	2	2,4
2.	Workplace support for online ministry		
	System	3	1,3,4
	Third-party delivery	2	1,3
	Team	3	1,3,4
	SOP	2	1,4
	Handphone facility	2	2,3
	Internet	1	3
	Packing	2	1,4
	Guidebook	1	4
	Medicine supplies	1	2
	Computer	1	3

Table 4 about motivation pharmacists indicated that there were 3 responses regarding online drug services, namely: increasing turnover, helping the community, and being easy to do. Of the 4 pharmacists, increasing turnover was easy to do, and only 1 answered helping the community, namely pharmacist 4. As for continuing to provide drug

services online, pharmacist 1 answered that as long as there were requests, they would continue to provide services, and the same answer was put forward by the pharmacist 2,3 and 4, namely that they would continue to provide drug services online because they can help the community and increase turnover.

Table 4. Project map motivation pharmacist.

No	Motivation	Frequency	Pharmacist
1.	Responses regarding online drug services		
	Increase turnover	4	1,2,3,4
	Help the community	1	4
	Easy to do	4	1,2,3,4
2.	Continue to provide drug services online		
	As long as there is still demand	1	1
	Help the community	3	2,3,4
	Increase turnover	3	2,3,4

Table 5 about behavior pharmacists pointed out that there are 9 tips for improving online drug services, namely: delivery order, drug availability, prompt delivery, good packing, the system could be even better, increased promotion, thoroughness, team

spirit, and according to SOP. As for the hope after carrying out drug services online, the answers to the 4 pharmacists obtained: stable turnover, easier delivery, clearer regulations, a better system, and helping the community.



Table 5. Project map behavior pharmacist.

No	Behavior	Frequency	Pharmacist
1.	Tips for improving online drug delivery		
	Drug delivery	1	3
	Drug availability	2	2,3
	Prompt delivery	1	1
	Good packing	1	1
	The system could be better	1	1
	Increase promotions	1	2
	Accuracy	1	4
	Team spirit	1	4
According to SOPs	1	4	
2.	Hope after carrying out drug services online		
	Stable turnover	3	2,3,4
	Simplify delivery	1	1
	The rules are clearer	1	1
	Even better system	1	1
	Help the community	1	2

Table 6 about the capability of the community indicated that in knowing about online drug distribution, all of them answered that they knew. However, when asked about regulations regarding online drug distribution, all of them also answered that they did not know. For the skills needed to get medicine online, it is enough just to operate a cell

phone, and the informants' answers are all the same. Meanwhile, the reasons for wanting to get medicine online include the following: it's easy, you don't need to leave the house, it's only in online stores, you don't need to go to the pharmacy, and there is a delivery order.

Table 6. Project map capability of the community.

No	Capability	Frequency	Community
1.	Knowledge of drug distribution online		
	Know	8	1,2,3,4,5,6,7,8
2.	Know the regulations regarding online drug distribution		
	Not know	8	1,2,3,4,5,6,7,8
3.	Reasons for wanting to get medicine online		
	Easy	6	2,3,4,5,6,7
	No need to go out of the house	2	4,7
	Only available in online stores	1	1
	No need to go to the pharmacy	3	3,6,8
Delivery order	2	5,8	
4.	Skills needed to get medicine online		
	Handphone operation	8	1,2,3,4,5,6,7,8

Table 7 about the opportunity the community shows that the way to access online drug purchases can be through the cellphone application or via the

internet. As for the ease of getting medicine online, all informants answered very easily.



Table 7. Project map opportunity of the community.

No	Opportunity	Frequency	Community
1.	How to access buying drugs online	2	3,8
	Application Internet	6	1,2,4,5,6,7
2.	Ease of getting medicine online	8	1,2,3,4,5,6,7,8
	Very easy		

Table 8 about motivation in the community shows that the motivations for getting medicine online include: it is easier to get medicine, there is no need to leave the house, delivery order, no need to go to the pharmacy, cheap, and there are discounts. Meanwhile, the advantages of purchasing drugs online

from the community's answers were obtained: discounts, cashless, simpler, saving time, and delivered to the house. The disadvantages of buying drugs online, such as not being able to consult in person, waiting time for delivery, and not being able to return.

Table 8. Community motivation.

No	Motivation	Frequency	Community
1.	Motivation to get medicine online		
	Easier to get medicine	3	1,2,8
	No need to leave the house	4	4,5,6,7
	Delivery order	2	5,7
	No need to go to the pharmacy	1	3
	Cheap	2	3,6
	There's discount	2	6,8
2.	Advantages and disadvantages of buying drugs online		
	Advantages		
	Discounts	5	1,2,4,7,8
	Cashless	1	2
	Simpler	2	3,6
	Save time	1	5
	Delivered to the house	3	5,7,8
	Disadvantages		
	Cannot consult directly	6	1,2,3,5,7,8
	Waiting time in delivery	1	4
Cannot return	1	6	

Table 9 about behavior, the community indicated that they continued to purchase drugs online, and all the community answered yes. As for the expectations for online drug services, the community provides expectations such as there are discounts, there are counseling services, they are still available, there are more medicinal items, and there is a guarantee of safety.

Application of BPOM Regulation No. 8 of 2020 concerning Drug Distribution Online at pharmacies in

Purworejo Regency has a significant impact on the supervision and safety of drug distribution through online platforms or e-commerce. This regulation aims to maintain the quality, safety, and security of drugs sold to the public, as well as regulate drug distribution activities in a more structured and controlled manner. BPOM Regulation No. 8 of 2020 has a very important goal in regulating the circulation of drugs that are carried out online in pharmacies.



Table 9. Community behavior.

No	Behavior	Frequency	Community
1.	Continue to purchase medications online Yes	8	1,2,3,4,5,6,7,8
2.	Expectations for online drug services		
	There's discount	3	5,6,7
	There is a counseling service	5	1,2,4,6,8
	Still there	2	1,2
	More medicinal items	1	3
	There is a guarantee of safety	1	6

One of the main aspects of this regulation is the special registration and licensing required by pharmacies wishing to operate online. By requiring pharmacies that wish to operate online to register and obtain special permits, BPOM can better monitor the existence of these pharmacies. This helps to identify legitimate pharmacies and ensure that they comply with the standards set. Special licensing from BPOM includes an assessment of the quality and safety standards of the pharmacy. Pharmacies wishing to operate online must meet certain requirements regarding storage, delivery, drug information, and drug-related practices. This aims to ensure that medicines sold through online platforms are of quality and safety according to standards. By requiring special permits, BPOM can minimize the risk of circulating counterfeit or illegal drugs on online platforms. Pharmacies that have gone through the licensing process will tend to be more committed to the integrity and quality of the drug products they offer. The licensing process also ensures that pharmacies provide accurate and transparent information to consumers. Information such as dosage, side effects, composition, and others must be clearly available on the online platform so that consumers can make wiser decisions when buying drugs. The existence of a special license from BPOM gives confidence to consumers that pharmacies operating online have passed a strict assessment and evaluation. This can increase consumer confidence in the drug products they buy online.⁸⁻¹³

Collaboration between pharmacies and e-commerce platforms has a crucial role in

implementing BPOM Regulation No. 8 of 2020. Within the scope of this regulation, e-commerce platforms need to collaborate with pharmacies that comply with BPOM regulations with the aim of maintaining the safety, quality, and safety of drugs sold online. Collaboration between pharmacies and e-commerce platforms allows for more effective monitoring of medicinal products sold online. Pharmacies that comply with BPOM regulations will sell products that have passed the licensing process and meet quality standards. By working together, e-commerce platforms can ensure that the products sold on their platforms are of guaranteed quality and safety. This collaboration also plays a role in preventing the circulation of counterfeit or illegal drugs. E-commerce platforms can verify pharmacies that wish to operate on their platform so that only pharmacies that are legal and meet BPOM requirements are allowed to sell. This helps minimize the risk of consumers purchasing inappropriate drug products. E-commerce platforms can have monitoring systems to check the products sold on their platforms. If a product is suspected of violating regulations, the e-commerce platform can report this to BPOM or the relevant authorities. This helps maximize the monitoring of online drug distribution. Through the e-commerce platform, pharmacies that comply with regulations can provide clearer and more accurate information to consumers. This includes information regarding quality, dosage, side effects, etc. This education helps consumers make wise decisions when purchasing drugs. E-commerce platforms can also play a role in law enforcement. In case of violations committed by pharmacies or sellers



on the platform, the e-commerce platform can cooperate with the authorities to take appropriate action. This collaboration can increase consumer confidence in drug products sold online. Consumers will feel more confident that the products they buy have passed verification and evaluation from the authorities.¹⁴⁻²⁰

4. Conclusion

Implementation of BPOM Regulation No. 8 of 2020 regarding the circulation of drugs that are circulated online in 4 pharmacies in Purworejo Regency has been running with a percentage of 79.55% being appropriate and 20.45% not complying with existing regulations.

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