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Multi stakeholders of health and industries perspectives on medicine price transparency initiative in private health care settings in Malaysia

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ABSTRACT

Introduction: Medicine price transparency initiatives provide public or government on information about the product's prices and the components that may influence the prices, such as volume and product quality. In Malaysia, medicine price transparency has become part of the government's strategies in ensuring adequate, continuous and equitable access to quality, safe, effective and affordable medicines. Since the effect of medicine price transparency depend critically on how prices are presented, this study aims to evaluate the stakeholders' perspective of medicine price transparency practice in the private healthcare system in Malaysia.

Methods: This study was conducted as face-to-face, semi-structured interview. Respondents from private pharmaceutical industries, community pharmacists, general practitioners, private hospital pharmacists, governments, academicians and senior pharmacist were recruited using purposive sampling. Using phenomenological study approach, interviews were conducted, and audio recorded with their consent. Data were transcribed verbatim and analysed using thematic analysis with Atlas.ti 8 software and categorised as strengths, weaknesses, opportunities and threats (SWOT).

Results: A total of 28 respondents were interviewed. There was a mixed perception regarding the price transparency implementation in Malaysia's private healthcare settings. The potential strengths include it will provide price standardization, reduce price manipulation and competition, hence allowing the industry players to focus more on patient-care services. Moreover, the private stakeholders were concerned that the practice may affect stakeholders' business and marketing strategy, reduce profit margin, increase general practitioner's consultation fees and causing impact on geographical discrepancies. The practice was viewed as an opportunity to disseminate the truth price information to consumer and strengthen collaboration between healthcare industries and Ministry of Health although this may become a threat that affect the business survival.

Conclusion: Price transparency initiatives would benefit the pharmaceutical industries, consumer and countries, but it needs to be implemented appropriately to prevent price manipulation, market monopoly, and business closure. Future study may want to evaluate the impact of the initiatives on the business in the industry.

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1. Introduction

In recent years, the increase in the prices of medicine has led to greater attention to how prices are determined by pharmaceutical companies (Gabay, 2016). Part of the solution to understanding how prices are set is to require that all parties, including manufacturers and pharmacies, to be transparent about their pricing methods and provide adequate reasons for raising them (Kaitlyn et al., 2017). Price transparency in healthcare can be defined as readily available information on the price of healthcare services that, together with other information, helps define the value of those services and enables patients and other care purchasers to identify,

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compare, and choose providers that offer the desired level of value (Healthcare Financial Management Association, 2014). A recent scoping review reported that transparency initiatives are able to lower market medicine prices through the utilisation of certain mechanisms. This entails recording the price information provided by the industries as “a reference price in an economic evaluation for price negotiation, effective procurement through drug reimbursement lists, and for setting wholesale, retail, or logistic fee mark-ups” (Ahmad et al., 2020). However, reporting on price transparency does not necessarily ensure that medicine prices will be reduced. For example, in some countries, the improper implementation of medicine price transparency has led to unsatisfactory outcomes such as price variation and even increase in medicine prices (Bangalee et al., 2016). This is because “manufacturers and pharmaceutical industries manipulated or adjusted their ex-factory, logistic, and wholesale prices such that the negotiated price or price set was not based on the actual ex-factory price and logistic fee” (Ahmad et al., 2020).

Medicine price transparency initiatives were found to be successful in reducing medicine prices when they were voluntarily implemented by pharmaceutical companies and when appropriate and clear contract structures of medicine procurement and reimbursement allowed for price negotiations between governments and the pharmaceutical industry (Ahmad et al., 2020). In order for it to be successful, the initiatives were perceived to require proactive collaboration from all stakeholders such as industry players, policymakers, healthcare providers, and insurance companies or payers (Healthcare Financial Management Association, 2014; Pasquariello, 2018). A lack of collaboration between stakeholders could be perceived to lead to dissatisfaction from and legal challenges by the pharmaceutical sector as reported in South Africa (Ngozwana, 2016). In addition, an increase in price transparency measures was also reported to reduce access to innovative and affordable medicines, especially in lower-income countries (Ridley, 2005). Therefore, it was concluded that medicine price transparency initiatives may need to be assessed on a case-by-case basis (Mats Bergman, 2006) as catastrophic practices may cause unforeseen effects, including the escalation of medicine prices and reducing access to medicines.

Following the recommendation by the World Health Organization (WHO), which encourages medicine market stakeholders to openly share information about their supply chain, the Malaysian government included medicine price transparency as part of its pharmaceutical pricing strategies to “ensure adequate, continuous, and equitable access to quality, safe, effective, and affordable medicines” (Pharmaceutical Services Division, 2012). Starting in 2011, the country’s National Medicine Policy (NMP) has encouraged the voluntary disclosure of medicine prices by pharmaceutical companies so that the information can be published as market reference prices (Pharmaceutical Services Division, 2012). Although the declared prices of medicine have a significant association with retail prices, the voluntary disclosure of prices among companies in the pharmaceutical industry to the Pharmaceutical Service Department of Malaysia’s Ministry of Health was low, thereby limiting the price references available to consumer or healthcare providers (Ahmad et al., 2019). Unlike the public healthcare sector in which prices are controlled through concession supply and national tenders, private healthcare in Malaysia functions as a ‘free market system’ in which there is no control over medicine prices (Hassali et al., 2015). Medicine prices in private healthcare settings in Malaysia were thus reported to be even higher than those of Australia (Hassali et al., 2012). Therefore, proactive action is needed to control the price of medicines in the private healthcare sector.

While policymakers are advised to achieve more price transparency and establish contract structures that address dispropor-

tionate pricing differences within and between countries, it is necessary that the initiatives are explored according to country-specific industry stakeholders’ perspectives as local impacts may differ. Therefore, this study aims to explore the perspectives of stakeholders in the industry and healthcare such as policymakers, pharmaceutical companies, and healthcare providers on medicine price transparency initiatives in Malaysia’s private healthcare sector.

2. Methods

Sampling and recruitment

The qualitative study was conducted according to the Consolidated Criteria for Reporting Qualitative Studies guidelines (Tong et al., 2018). Semi-structured interview using phenomenological study approach was conducted between May and November 2018 with aims to explore respondents’ experiences and insights on the issues (Creswell, 2009). The respondents of this study were selected purposively based on their affiliation in the industry stakeholders inclusive of the product holders from local and imported manufacturer, community pharmacy, general practitioners’ clinic and pharmacist in private hospital located in Kuala Lumpur, Putrajaya and Selangor, Malaysia. These three states were selected as the sampling sites for the respondents in this study as most healthcare stakeholders (such as policymakers and pharmaceutical companies) are located here. The respondents from industry players were senior management or directors of the company or registered pharmacists and doctors practicing in the chain or independent pharmacy or clinics who involve in medicine purchasing and price-setting at their practices. The respondents were purposively sampled as they were known to hold an important position in their respective professional bodies or organizations and/or involved in the proposal discussions on medicine price-setting mechanisms with the Malaysian Ministry of Health. Other stakeholders were policy makers and academics who were involved in medicine pricing policy or conducting research in this area. Identified respondents were contacted through formal email and followed by phone calls. They were briefed about the study and were invited to participate. Respondents who were interested in joining the study received an interview topic guide and information sheet which was emailed to them beforehand. The appointment for the interview was set according to respondents’ convenience after they had gone through the interview topic guide. Participation in this study was voluntary and no incentive provided to the respondents.

2.1. Study instrument and procedures

An interview guide was developed using relevant literature from previous studies (Hassali et al., 2010; Malaysia Competition Commission, 2017; Pharmaceutical Services Division, 2012; Siang et al., 2014a). The interview guide included questions asking the respondents to share on their views on price transparency initiatives such as the practice on price disclosure to the government, the government’s online price reference for consumer guide, price information display at the setting and the detailed billing practice. It also covers questions on stakeholder’ perceptions of the impact of the price transparency initiative on the business, industries, patients and the country. Before the interview, the research team evaluated, and content validated the interview guide. Then, the interview guide was piloted on two practicing pharmacists, one from community pharmacy and one from a private hospital and changes were made accordingly to improve the content. The finalized interview guide is presented in Appendix A.

The semi-structured interviews were conducted as face-to-face and in English language at respondents’ office, pharmacy or clinics

at their convenience. Upon consent from the respondents, the interviews were audio-recorded with each interview lasted between 30 and 60 min. The fields notes were taken during the interview and the notes were used to summarize the key points with the respondents at the end of the interview. Respondents were offered to revise, to add or clarify their opinions should they think that the key points were not according to what they really mean. Respondents were continued to be recruited until saturation was achieved in which no new coding or themes aroused from two consecutive interviews.

2.2. Data analysis

The interviews were transcribed verbatim and analysed using the framework method of analysis with Windows software ATLAS.ti version 8 (ATLAS.ti Scientific Software Development, 2017). Coding was done by NA, EH who listen and review the interview transcription also conducted an independent coding for the first five of the interviews. A discussion between EH and NA was done to discuss the labels that had been assigned to each passage and achieved an agreement on set of codes that will be used for the analysis. At the end of the coding process, EH and MMB independently cross checked the coding to ensure validity of the coding process. After completion of the coding, the team discussed the codes that were conceptually related and therefore grouped them together as overarching categories. The data was then summarized using framework matrix comprised of one row per participant and one column per code and a separate sheet for each category using Microsoft Excel. The abstracted data from transcripts were then inserted to their corresponding cell in the matrix and themes were generated by reviewing the matrix and making connections within and between participant and categories. The example of tree-coding is presented in Table 1. The themes then compiled according to the strategic planning analysis of strength, weakness, opportunity and threats (SWOT). The study was approved by the Human Research Ethics Committee, Centre for Research and Instrumentation Management, Universiti Kebangsaan Malaysia (UKM PPI/111/8/JEP-2018-046).

3. Results

3.1. Characteristics of respondents

A total of 28 respondents participated in the study. They comprised of seven respondents from pharmaceutical companies, six from community pharmacies, five from private hospital pharma-

cies, five general practitioners, two from the Pharmaceutical Service Department in the Ministry of Health, two from various academic fields and one from the society representing the pharmacy profession in Malaysia. Respondents in this study aged between 30 and 63 years old and had more than 6 years of experiences in the industry players and other pharmacy-related field. The summary of respondents' demographic and characteristic is presented in Table 2.

3.2. SWOT Theme

The respondents in this study provided a mixed perspective on medicine price transparency initiatives for private health care setting in Malaysia. The summary of respondents' perceptions on the price transparency initiative is presented in Table 3.

3.2.1. Strengths for the price transparency initiative

The respondents from pharmaceutical companies, community pharmacies, general practitioners, government departments, and various academic fields perceived some strengths in the price transparency initiatives in the private healthcare sector of Malaysia. This includes the perceptions that it may help to standardize the medicine prices, reduce price variability, hence making market to have a uniform medicine price. Currently the medicine prices in the market includes tier-pricing, confidential bonus, rebate or discount agreement which causing the market medicine prices to be variable. In addition, stakeholders from the government perceived that the uniform medicine prices will benefit the consumer through fair pricing.

"Tier pricing practice by pharmaceutical industries give an inconvenient situation to us in community pharmacy. . .[but] with price transparency we could have a standard price for medicine" (CP2)

"Most definitely, we need to improve with a mechanism in order to improve the current practice. We need to standardize the medicine prices so its benefit the consumer for fair pricing. (GOV2)

The respondents in this study also perceived that the medicine price transparency initiative may provide consumer and service providers with price reference that can be used as a guide when purchasing or setting the price at their facilities. This could be seen to benefit the industry player in-term of strategizing their business direction for example, set the price lower than their competitor.

".Currently, our price depends on volume and they [the pharmaceutical company] give bonuses and we set the price

Table 1
Example of tree-coding.

Theme	Strenght	Definition
Code 1 Subcodes	Standardize medicine price and reduce price variability Similar price across all facilities Similar bonuses and discount Remove tier pricing Fair prices across all facilities Prevent mark-up by certain facilities Reduce price variability	All facilities will have similar price for the medicine Pharmaceutical industries apply same bonuses and discount to health care providers Selling price to retailers and practitioners will be the same regardless of purchased volume All facilities will get the medicines at the same price from the pharmaceutical industries Facilities will not be able to put high mark-up on medicines Medicine price become standard across all facilities
Code 2 Subcodes	Provide reference price to consumer and health care providers Reference price for healthcare providers Reference price for consumer Allow the practice of price comparison Prevent over-charge of medicine price Would help to explain the cost of medicines	Healthcare providers will have a reference in setting the market price for consumer Consumers will have a reference on medicine price Allow consumer to compare price across different facilities Prevent consumer from being over-charge by their health care providers or prevent facilities to over-charge their consumer Reference price would explain the price charged to consumers

Table 2
Demographics of the respondents.

No	Group	Participants	Gender	Years of Working Experience
1	PI1	Pharmaceutical Industry	Male	30
2	PI2	Pharmaceutical Industry	Male	30
3	PI3	Pharmaceutical Industry	Male	20
4	PI4	Pharmaceutical Industry	Female	28
5	PI5	Pharmaceutical Industry	Male	30
6	PI6	Pharmaceutical Industry	Male	6
7	PI7	Pharmaceutical Industry	Male	23
8	CP1	Community Pharmacist	Female	22
9	CP2	Community Pharmacist	Female	10
10	CP3	Community Pharmacist	Female	19
11	CP4	Community Pharmacist	Female	18
12	CP5	Community Pharmacist	Female	16
13	CP6	Community Pharmacist	Male	6
14	PH1	Private Hospital Pharmacist	Female	19
15	PH2	Private Hospital Pharmacist	Female	28
16	PH3	Private Hospital Pharmacist	Female	12
17	PH4	Private Hospital Pharmacist	Female	17
18	PH5	Private Hospital Pharmacist	Female	18
19	GP1	General Practitioner	Female	10
20	GP2	General Practitioner	Male	28
21	GP3	General Practitioner	Female	15
22	GP4	General Practitioner	Male	16
23	GP5	General Practitioner	Male	22
24	GOV1	Government	Female	35
25	GOV2	Government	Female	8
26	ACAD1	Academician	Male	21
27	ACAD2	Academician	Male	20
28	SOC	Senior Pharmacist	Male	36

Note: PI; respondents from pharmaceutical industries, CP; respondents from community pharmacies, PH; respondents from the private hospital, GP; respondents from general practices, GOV; respondents from the Ministry of Health, ACAD; respondents from academic field, SOC; respondents from professional society.

Table 3
Stakeholders' view of medicine price transparency initiative: SWOT Analysis.

Strengths	Weaknesses
<ul style="list-style-type: none"> Standardize medicine price and reduce price variability Provide reference price to consumer and health care providers Prevent profiteering Increase consumer empowerment in value-based purchasing 	<ul style="list-style-type: none"> Reduce business profit margin, hence jeopardizing business survival Remove good price for certain facilities through abolishment of tier pricing or bonusing Reduce geographical discrepancy pricing
<p>Opportunities</p> <ul style="list-style-type: none"> Strengthen pharmaceutical industries and government collaboration Prevent unreasonable increase in medicine price Resolve consumer's suspicion on industries for setting high mark-up for medicine price Promote healthy competition between the industries Healthcare providers could focus more to service and treatment care Ease the process of itemized billing 	<p>Threats</p> <ul style="list-style-type: none"> Reduce profit margin from medicine price mark-up could increase other relevant health care cost such as consultation fees Increase risk for price manipulation Price transparency without price control may lead to market monopoly by certain industries Reduce profit margin, will reduce budget for research and development. Hence, innovation of new products will be affected Reduce good price to least developed countries due to the medicine price is no longer confidential to other countries

considering the bonuses as well. I prefer to set the price based on the no-bonus price so that I don't adjust too much. If the price is transparent, we will know the range price that [pharmaceutical] company offered in another setting and if bonusing involved. [The pharmaceutical] company may need to give standard price to all the clinics" (GP3)

"I don't know the price outside. I mean, based on what I see at the pharmacies, sometimes when we [general practitioners] look at the price, we try to adjust accordingly" (GP3)

Price reference was also perceived by the respondents to allow consumer to exercise their rights of knowing the medicine prices before paying or purchasing them. The information on medicine prices will help consumer making more informed choice and prevent them from being overly charged, hence empowered them with value-based purchasing.

"Price transparency may prevent overcharge of the medicine to the consumers. It is consumer rights to know the price so they can evaluate whether it is reasonable or not" (PI7)

"We always talk about the rights of the consumer to know their cost of medicine and treatment but it's not being practiced...How on earth is the consumer going to know what is the actual price and how do they compare? ..[if we don't provide the information] They are not able to do that, and we are victimizing the consumer." (SOC 1)

The government stakeholder also perceived that the strength of medicine price transparency includes that it may help medicine prices regulation in the market. This may occur, for example, through increase consumer awareness to report high or unreasonable medicine prices to the government that appropriate actions can be taken.

“The consumers, as much we want the price regulation, we need to be aware that we as a consumer also can help with the price regulation, by providing information to MOH.” (GOV2)

3.2.2. Weakness for the price transparency initiative

Several weaknesses were identified as reasons for hesitation for medicine price transparency initiative. This include that price transparency initiative may remove potential medicine good price in certain facilities which can be obtained from tier-pricing, rebates, bonusing and discount. This is potentially important for industry players who have chain businesses whom purchased their medicines as in bulk or high-volume or general practitioner who have the authority to prescribe and dispense their own prescriptions. In these facilities, the medicine price transparency mechanism may remove some of the advantages of getting a good price, which may include reductions in the price mark-up and profit margins, thereby preventing competitive pricing competition among industry players.

“We have several clinics and do centre purchasing so could get a cheaper price. We can get more profit because we purchase [medicines] in bulk compared to a small clinic. When the price is transparent, we may lose the good price through bonusing and discount” (GP2)

“I have a concern when we are giving only standard pricing [for medicine]. One price for all. It does not matter if you bought thousands. Us, as a group, our purchases are very high, our volume is a lot. If the price offered to all is standardized, we feel that the price will not be competitive anymore.” (PH5)

The stakeholders from the government perceived that a bit difficult to get price from the companies because they set the price differently for different facilities and have many tiers.

“A few companies that shared price with us gave different price for according to facility, pharmacy, clinic or private hospital and many tiers involved. Most of price shared was wholesale price, not many companies have RRP. We need retail price (RRP) to share with public, so with current system, it's a bit difficult for us.” (GOV1)

Some of the private healthcare stakeholders perceived price transparency as a weakness as it may reduce their profit margin, hence jeopardizing their business survival. General practitioners and stakeholders from private hospital requires the medicine prices profit margin to cover their high operational cost. To avoid this, the industry players hope that the government will consider appropriate profit margin in medicine price transparency initiative to allow them to survive. The representative from pharmacy society perceived that pharmaceutical companies should be allowed to make profit but not profiteering in which it includes unreasonable price mark-up and profit margin. With price transparency government may be able to identify whether companies are profiteering. Nevertheless, the stakeholders from pharmaceutical companies perceived that they have offered similar price to all players but the price different is depending on what is set by the facilities.

“To set the price, I depend on the price that the supplier gives me and put some profits. Of course, in business, we would like to have some profit and margins, but without any control of medicine prices it may affect our clinic operational as well. We cannot charge much on consultation fee except followed as the range in the schedule” (GP2)

“When you are in business, you have to make a profit. But you cannot be profiteering. That is, we need the price transparency practice because we do not know the cost of medicine. We did not say they cannot make a profit; they must make profits but not profiteering” (SOC1)

Meanwhile, stakeholders from community pharmacy perceived that the price transparency should include appropriate profit mar-

gin for their business survival as currently they do not charge for their professional fees unlike the general practitioners.

“If they [government] made the medicine price transparent and the price considering our margin, we don't think it will be an issue for that. But if the published [medicine] price a bit low and we can't make any profits, it will be a problem for us. We [community pharmacy] don't get a dispensing fee for medicines [community pharmacies]” (CP6)

Some of the stakeholders perceived that price transparency will lead to standardize medicine prices that price segmentation following geographical discrepancies would not be able to be implemented. For example, the business in urban may have higher operational cost than those in rural due to expensive rental and staff salary. Hence, they perceived that the medicine prices in urban cannot be offered as the same as in rural. Nevertheless, respondent from academic perceived that it would be not practical for the government to consider geographical price discrepancies as it will be too complicated.

“We afraid price transparency did not consider the price in the urban area. The [medicines] price set in urban and rural is not similar, especially the operational cost such as rental cost etc. It's also double than the ones in rural areas. Staff, right? We cannot pay them the same amount as in the village, right?” (GP3)

“... I don't think you should distinguish between the urban and rural. The price set by the government should be the same in urban and rural. Otherwise, it'll become too complicated.” (ACE1)

3.2.3. Opportunities for the price transparency initiative

With medicine price transparency, the stakeholders perceived that the collaboration between pharmaceutical companies and MOH will be strengthen through several mechanisms such as clear direction of policy, increase in communication between the two for example during price information sharing and greater involvement of the industry players especially the pharmaceutical companies in policy development and discussion.

“The collaboration between MOH and industry is very important to make this transparency successful. If we're to make it as policy, government policy with a good understanding with an industry I think the industry will somehow abide. Unless if you really press us[industry]” (PI7)

“Agree yes all levels should play the roles [to implement price transparency], we need collaboration especially the pharmaceutical industries” (PH1)

The industry players such as general practitioners and community pharmacists perceived that price transparency initiative may prevent medicine prices to be changed frequently. This was particularly a concern among industry players as they need to keep update on price changes and conduct price adjustment frequently. Price transparency was also seen as an opportunity to prevent sudden increase of medicine prices that commonly occur when there is a high demand and shortage in supply.

“Small clinic, like us, will feel the pain every time the [medicines] price increase and our profit margin reduce from time to times. Sometimes we have difficulty in getting stocks of medicine, then when the new stock comes, the price increase” (G2P)

“I think with price information available, we at community pharmacy would not worry much about the sudden of the price increase, which we need to make a price adjustment. I guess transparency would ease our operational” (CP6)

The stakeholders also felt that price transparency could be an opportunity to resolve the suspicion between the industry players on high medicine prices mark-up along the supply chain. With price transparency, price mark-up will be transparent, and appropriate justification for high mark-up can be gathered from the involved party and this will prevent blaming the wrong players.

“I don't give [medicine] different prices, all of them [medicine] have the same prices. We follow the GPTP (Good Pharmaceutical Trading Practice) directive. However, when it comes to patients, Why A B C [at facilities] got different prices? It's not my mistake, I gave a good reasonable price” (P13)

With price transparency, some stakeholders felt that it will reduce price war and prevent unhealthy competition among the industry players. Currently, the stakeholders feel that price competition would benefit those who received discounted, rebate or bonuses from the pharmaceutical companies in which it creates market monopoly through lowering the medicine prices. The stakeholders also perceived that without the price war, competition among the industry player will be concentrated on patient-oriented care and the services provided which will benefit the patients by improving their treatment outcomes.

“I think, with transparent of price, to organization or setting – [it's] actually less headache [for us] about the price. It will solve unhealthy competition among the settings. Retail that monopoly the market should be more ethical” (PH1)

“If there's transparency in price and the price may be standardized, I think that's a good move. So that the pharmacies could really give the pharmaceutical care to the patients, not like price war and etc...” (CP4)

“So, rather than this professional focusing on the pricing of the medicine, we have to stabilize the medicine prices so that they can do the professional jobs. Now, if the pharmacists are not able to do the professional jobs, who is going to lose? The consumer is going to lose. The nation is going to lose.” (SOC1)

The stakeholders also perceived that the price transparency initiative would improve the process of itemized billing for the patients. Despite it has been regulated in the Private Hospital Act, the practice of itemized bill in Malaysia is not standardized and practitioners were reported to provide a lump sum bill for medication to avoid consumer to compare the medicine prices with other settings. Awareness on medicine prices will help patients to choose their value-base service or medication and reduce their out-of-pocket money.

It's [price transparency practice] actually a good practice for itemized billing. But the private practitioner doesn't itemize the billing of the charges. Instead what the general practitioner does is they bundle the charge [charge patients as single cost] (CP1)

The stakeholder from the government perceived that medicine price transparency initiative will be an opportunity for the government to set medicine price in the private health care settings.

“I think price transparency can really help to reduce the medicines price. will we use [price information] to create a mechanism for controlling the medicine prices” (GOV1)

3.2.4. Threats for the price transparency initiative

The stakeholders in the study also perceived some threats of medicine price transparency initiative such as it may affect the business survival. This is due to lower profit-margin following price standardization and/or price control. In such, other source of income such as consultation fee must need to be increased to cover the operational cost. This was seen could burden the consumer.

“Since we are not able to charge based on our skills [consultation fee], we must rely on our medication but if the medications are fixed, then the doctor will be done [unable to survive running the clinic]. Stuck in between. So, the government has to allow doctors to charge higher for consultations. We need to have a minimum consultation fee. The doctors tend to compete. Some will undercut, some will overcharge” (GP4)

“...problem of creating transparency in price is that the company might be subjected to a bigger loss because more people will

low down the cost and the selling price. They might to increase other costs to survive” (CP1)

Other threats to price transparency include weak or no clear regulation or policy on price transparency initiative. The industries stakeholders perceived that strong regulation or policy will ensure that everyone is clear with the government directive and will work towards achieving it. Unlike the current practice when there is a weak or no regulation for example with the voluntary price declaration, not all stakeholders will contribute in sharing their medicine price information. In addition, the absence or weakness of a regulation or policy to govern the initiative may cause some industry players to manipulate the system; therefore, instead of reducing medicine prices, their actions may increase it.

“[Government must have] clear and transparent plan to all stakeholders, if not you will see like what happened currently that I can give the information on my medicines price, but others don't report it to the government. We cannot say that the ones whom did not report is wrong or right as currently there is no regulation” (PI3)

“There is a need for act and regulation. It will prevent the lying/-manipulating of pharmaceutical industries. I think it's a bit challenging to the government to implement it at the start. However, with Act and regulation people will obey” (PH5)

Moreover, some perceived that the price transparency initiative will not be successful in controlling the market price without the price setting mechanism by the government. For example, without regulation and policy, the price transparency initiative could not achieve the level that will benefit the consumers. Without the law, price declaration may not be done appropriately, and company may manipulate the information to suit their business interest.

“Actually, if the government just published price [and] not control, not all the pharmacy will follow the published price. This is because they might not get a good price from supplier [product holders or manufacturers]. The consumer may demand the price if a pharmacy sells higher price than price published. They [consumer] might not consider other costs that pharmacy has to cover” (CP6)

“Without the law binding, the outcome is just a voluntary reporting so we have voluntary reporting you can never obtain the level of price transparency that is best for the consumer because you are limited what information voluntary giving by the industry only” (GOV2)

Price transparency without the price control was also perceived could be a threat to small business industries. For example, bigger companies usually able to offer attractive prices for their customers unlike the small companies. Hence, by cutting the competition with price reduction, the small companies will not be able to survive and induce market monopoly by the bigger companies. In addition, price transparency may also be a threat to innovation of new products. This is because, the initiatives may introduce the standardize or control medicine prices that reduce business' profit margin. With reduction in profit margin, companies may not be able to invest in their research and development activities or bring in patent medicines into the country's market. This may affect the accessibility of consumer to newer and innovative products.

“Pricing transparency cuts both ways, actually pricing can cut two ways. Example, my company is bigger than him that I can cut my price, so that he cannot survive. Transparency can create bully and remove competition” (PI2)

“In the pharmaceutical sector, the patents medicine monopoly the market. Well, the government recognize patents as companies that have invested in their R&D. . . and when pattern medicine monopolized the market, the price will become distorted. You can-

not cut down their profit as they invest, and they need to get benefits” (PI2)

Price transparency is also perceived as a threat to pharmaceutical companies as medicine prices will no longer be confidential within the country. Furthermore, access to the country’s confidentiality agreement or medicine price setting mechanism was perceived to interfere with the pharmaceutical industry’s international business strategy.

“Because every country in this region looks at your price, everyone will be careful because the minute the price is exposed, it reflects that you will lose your edge” (PI6)

4. Discussion

The current study explored the stakeholders from industries and healthcare’ perspective on price transparency initiatives for the private health care service in Malaysia. There was a mixed perceptions regarding the price transparency implementation in Malaysia’s private health care settings. The stakeholders perceived the initiative may possess some strengths, weaknesses, opportunities and threats to business, consumer and the country. The potential strengths include it will provide price standardization, reduce price manipulation and competition, hence allowing the industry players to focus more on patient-care services.

Consumer will benefit the price transparency by being able to practice value-based purchasing and received more standard services. Previous study reported that consumers usually contemplate the price of medicine for a lower price by visiting more pharmacies (Hassali et al., 2010). The transparency initiative will make medicine price information available for consumer to refer and prevent them from being overly charged. It also prevent frequent changes in market’s medicine prices and inappropriate mark-up. Price information from the transparency initiative may serve as a reference for consumer to compare and choose different brands or generic that are available in the market (Hinsch et al., 2014; Pharmaceutical Services Division, 2012). Previous national survey on medicine survey shows 68% of consumer in Malaysian indicated that price information label helps them in making a choice when purchasing medicines (Mohamad Azmi and Fahad, 2016). This may empower the consumer for a more value-based purchasing which will help to reduce medicine prices in the market through healthy competition. In the long run, reduce medicine prices will increase consumer accessibility to more affordable medicine (Hinsch et al., 2014; Vogler and Paterson, 2017).

Currently, price discrimination occur at different settings through confidential arrangement in tier-pricing, bonusing, rebate and discount (Austin et al., 2007). Bonusing and rebates were given usually to general practitioners as they were the leading decision-makers in prescribing and in Malaysia they were allowed to dispense their own prescription (Hassali et al., 2010; Siang et al., 2014b). Pharmaceutical companies were also reported to fix different prices for different practitioners, markets, even within the same state or country. The unfair price discrimination create medicine price war between the industries players (Hassali et al., 2010; Siang et al., 2014a) and create market monopoly and reduce business opportunity for small companies. With price transparency, medicine prices will be standardized, hence competition in the industries can be focus on providing quality patient-care services to the patients (Hassali et al., 2010). For example, the health care providers such as pharmacists could play more roles in pharmaceutical care such as providing medicine management services, provide intervention required, advice, and medicine counseling to their customers (Cheah, 2018; Mubarak et al., 2019). In addition, general practitioners would have more time to enhance their patient care and treatment outcome. This creates healthy com-

petition among healthcare providers and increase consumers’ access to a more quality services which may improve their health outcomes (Mubarak et al., 2019). With price transparency initiative, market monopoly through price cutting can also be prevented and safeguard the interest of the small companies which often belongs to the local pharmaceutical industries. This could contribute to strengthen the economic development in the country and stimulate economic growth by providing employment opportunities to local people and taxation payment to the government.

Although medicine price transparency may benefit the consumer and business, it also perceived to possess some weaknesses and threats to consumer, industries and countries. One of the important concerns includes that it may jeopardize companies’ survival. Currently community pharmacy in Malaysia did not charge their professional fee to their customers (Shafie et al., 2012) and the professional fee for general practitioners was reported to be among the lowest in the region of RM25 (USD 6) per consultation compared to other neighbouring countries (Loh Fong Foon, 2018). This is particularly a concern for the industry players as their business orientation depends very much on medicine profit margin. This is also the case for private hospitals as high mark-up of medicine is oftenly required in their setting than in general practice or community pharmacy to cover the high operational cost (Ahmad and Islahudin, 2018; Malaysia Competition Commission, 2017). Foreseeing this, the industry stakeholders perceived that they need to increase or started to offer charge for their professional fees to cover their loss of profit from medicine price mark-up. This may increase consumers’ out-of-pocket expenditure on other-related costs for healthcare services. As reported in a current scoping review, medicine price transparency may not necessarily reduce the market medicine prices (Ahmad et al., 2020). Only three of 12 studies in the scoping review evaluated the outcomes of medicine price transparency initiatives. Two studies reported that the market medicine price increased and only one reported a significant reduction following the application of medicine price transparency and price-control mechanisms (Ahmad et al., 2020). An increase in medicine prices may occur due to weak or unclear laws and monitoring practises as well as manipulation by pharmaceutical companies when they declare their prices to the government (Nguyen et al., 2010). As claimed by the respondents in this study, this may be done to ensure the survival of their business. Since none of the included studies reported the outcomes or impacts that the medicine price initiatives had on businesses in the industry, future studies may want to investigate this to confirm the situation.

Based on these findings, the Malaysia government may need to come up with appropriate strategy to ensure the medicine price will not be manipulated during the transparency initiatives. Although the foundation for price transparency in Malaysia has been laid out in the National Medicine Policy and GPTP (Pharmaceutical Services Division, 2015, 2012) they were not governed by law or regulations and only implemented based on voluntary reporting. Hence, the reporting practice was found low and decrease over the year despite MOH active encouragement (Ahmad et al., 2019). Moreover, price setting mechanism need to be in place following price transparency initiative as the medicine prices was still found to be high with voluntarily price declaration (Ahmad et al., 2019). In ensuring price transparency initiative that lead to effective price control mechanism to be successful, engagement between the industries with the government need to be improved. As shown in the Medicines Transparency Alliance (MeTA) initiative by the World Health Organization, the engagement of multi-stakeholder of pharmaceutical sector in price information sharing and price settings had lead to greater incentives to pioneer changes and instilled greater responsibility and accountability upon those needed to instigate the changes (Vian et al.,

2017). This is in agreement with the market review done in Malaysia which reported that price transparency initiative should involve all relevant parties in the industries (Malaysia Competition Commission, 2017). This is to ensure that fair and competitive market continue to foster the industry players' business development (Malaysia Competition Commission, 2017). This include discussion, agreement and compliance from all the parties to ensure the practice benefit consumers, industries players and the country.

This study is subject to a few limitations. The stakeholders that were agreed to participate were more likely to have positive views compared to those who decided not to participate. Furthermore, during the study period, MOH had an ongoing discussion with the industries stakeholders for the medicine price setting mechanism proposal in the private healthcare setting. Hence, respondents might have felt uncomfortable expressing views that could be perceived as something negative about the government initiatives. However, during the interviews they were told to speak freely and honestly without worrying of any implication to their business and/or their good selves. Although the stakeholders were purposively sampling to represent their industries or organization, the provided views may include their personal insights on the issues and not necessarily representing their industries and/or organization's views. However, since the respondents were known to be the expert in their area, their personal views are also considered to be important for study analysis.

5. Conclusion

Stakeholders in the Malaysian health and pharmaceutical industries have perceived the strengths and opportunities that medicine price transparency initiatives may hold. This entails the standardisation and regulation of medicine prices in the market that will help consumers make more informed choices. Nevertheless, they also perceived that adequate implementation is needed in order to prevent price manipulation, market monopoly, and business closure. This would mean that laws and regulations for compulsory price transparency initiatives need to be introduced as well as appropriate price control mechanisms and the active engagement of industry players across all levels. To confirm these findings, future studies may want to evaluate the impact that medicine price transparency initiatives have on the business in the industry.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jpsp.2020.06.003>.

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