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# Examining community-managed drug outlets' failure in geographically isolated and disadvantaged areas: insights from the consumers' end

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## Abstract

**Objectives** The article aimed to examine the impact of poor purchasing power, perceptions on the physical structure, and medicine demand to community-managed drug outlets or Botika ng Barangay (BnB) in the Philippines. The study investigated what contributes to program resiliency or failure in so far as the consumers in geographically isolated and disadvantaged area (GIDA) are concerned.

**Methods** Findings were drawn from five sets of focus-group discussion (FGD) among residents, four in-depth interviews (IDIs) with former operators of BnB and three IDI with former members of the village council specifically assigned in health sector.

**Key findings** The study found out that all our study variables namely; poor purchasing power, perceptions on BnBs' physical image, and limited medicines that do not match the consumers' medicine demand did not contribute to the failure of the program in their communities. However, the study found out that informal arrangements in the community which allowed people to just loan medicines without actually paying in return was intimately connected to BnBs' closure in the communities.

**Conclusion** The study suggests that, in the context of GIDAs, the failure of community-managed drug outlets rests as well on financially unsustainable practices in the community. This, we believe, can be negated through provisions for medicine subsidy.

**Keywords:** medicines in rural areas; community-managed drug outlets; medicine consumers

## Introduction

Urban and rural contexts pose differing consequences on population health.[1–4] Considering these spatial contexts, several studies attribute these health disparities on geographic factors,[5–7] and the socio-economic conditions in these areas.[8–10] Whatever the case is with their urban counterpart, the mixture of these identified factors shapes a different narrative in the rural scene. While the urban and rural poor may have the same problem in accessing health facilities and services owing to financial constraints, the latter faces challenges not necessarily shared with the former. Among others, for example, the rural poor struggles to physically access health-related facilities coming from remote areas,[11] which usually an alien reality among

urban or city dwellers. This situation discourages rural folks to avail health services and hence, compromises their health.[12, 13] Health challenges, in so far as they are caused by physical inaccessibility, are therefore more glaring in the rural areas.

Cognizant of this disadvantaged position of the rural population, diverse measures are thought of, and utilized to better address disparities in health outcomes and health services. These include, but not limited to, the development of rural health insurance,[14–16] creation of programs that assure physicians are available in the rural areas,[17–19] deployment of clinics on wheels,[20–22] application of telehealth home monitoring systems [21, 23–26] and the establishment of community-managed drug outlets.[27–29]

In the Philippines, these community-managed drug retail outlets are locally called Botika ng Barangay (BnB). BnBs began their operation as early as the 1970s. After 10 years, BnBs ceased and were revived in 2000. In 2010, more than 16 000 BnBs were operating serving 8.2 million people a month. Despite its achievements and the growing number of operational stores, BnBs were marred by underperformance in terms of its geographic distribution where poorest provinces and regions in the Philippines registered no operational or existing BnB stores. Essentially, this indicates how BnB partly failed to fulfill its original intention to allow the poor access to cheaper medicines. Apart from this, supervising pharmacists in these stores, which is a requirement under relevant government policies, were noted to have been lacking.[30] BnBs ceased its operations once again in 2011 citing internal issues such as stocks availability, operating hours, variety of medicines sold,[31] drug management system insufficiency, absence of standardized training program for operators and sustainability of operators.[32] Oversees and regulated by the country's Department of Health (DOH), these village drugstores aim to make medicines more accessible and affordable to underserved locations [33–35] which are especially helpful to poor residents of rural areas. BnBs, as mentioned, were pressed against challenges in different aspects of its operations and management.[30–32,36] Taken together, these hurt the sustainability aspirations of the BnBs as a program. Similar issues have also plagued their foreign counterparts [37–39] thus countermeasures were advanced to address some of these issues.[40, 41]

The challenges were clearly logistical, operational and financial constraints on the part of the BnB itself. This study, on the other hand, would like to explore how BnBs' failure is shaped by the consumers. Previous studies as mentioned have focused on what is going on "within" the BnBs, thus, there is almost no shortage of knowledge as to how they fail in so far as the "internal workings" of the same are concerned, while this study would like to address the gap of understanding the failure of BnBs "outside" their daily operations. This is not to discount nor invalidate earlier findings. However, approaching the study from a different perspective may give additional insights as to how these (government) programs can be more resilient and sustainable.

We argue that consumers' purchasing power, perception about the BnB as a store, and medicine demand are three factors or variables that shape BnBs' failure in these areas. In terms of purchasing power, poor purchasing power means low spending rates too.[42] This substantiates our assumption that since geographically isolated and disadvantaged area (GIDA) areas are poor areas too, spending for BnBs medicines would also be constrained and therefore might hurt BnBs as a business. Aside from considering purchasing power, the article takes a focus also on the consumer's perception about the BnB as a medicine store. The physical image of stores is believed to have positive influence on consumer behavior.[43, 44] We therefore argue that their perceptions on BnBs physical environment greatly affect their purchase intention, which would in turn contribute to its resiliency. Several studies evidenced the connection of positive perception and favorable purchase intention.[45–47] Since BnBs in these areas are not that "well packaged physically", we think that there is a considerable bias against buying medicines in these areas. Likewise, this study examines how consumers' medicine demand impacts or shapes the failing outcome of BnBs within these GIDA. The article argues that some BnBs do not thrive precisely because medicines therein, for one, are not responsive to the needs of the community, or that the supply is too limited to be patronized. Especially that there are reports showing demands for specific medicines but which are normally unauthorized by the government to be available in BnBs.[30, 48] In a survey conducted by the EU some years ago, some BnBs were forced to shut down due to poor medicine demand as one of the major reasons.[49] The government understandably regulates the range of allowable over-the-counter medicines that can be dispensed in BnBs. However, the fact that not all BnBs have been successful invites an examination as to what contributes to this phenomenon.

This study came about at this time when BnBs are no longer operating. The study hopes to contribute to understanding the sustainability of government programs like BnBs in rural areas. Our study could be a small step in reexamining BnBs in the country, most especially in the face of unsuccessful efforts to establish the same. If not a full-blown reassessment and revision of policies, the study still provides theoretical orientation in understanding how local environment shapes program outcomes. The study is part of an undergraduate research among mentees and mentors without external funding.

## Method

This article is a qualitative study, utilizing focus-group discussion (FGD) and in-depth interview (IDI) techniques to gather primary data. The study had two sets of participants, for the FGDs, we gathered mother-residents living in the village where a BnB operated before and for the IDIs, we spoke with former BnB operators and the village councilmen specifically assigned on health sector during the time of the BnB's operation in their village. We were able to conduct five FGDs with a total of 36 participants, five IDIs with former BnB operators, and four IDIs with former councilmen. We went to our locations with confirmed failed BnBs which are no longer existing or operating today. These BnBs were confirmed a failure because they were reported to have suddenly ceased to operate without government instruction to close them. While consumers are the main subjects of this study (as the title suggests), former BnB operators and councilmen were reached also to participate as a means to triangulate or verify the statements made by the consumers. This increases the veracity of the consumers' claims in the study.

The data gathering took place in the provinces of Nueva Vizcaya and Aurora, both in Luzon Island. From these provinces, we determined the specific municipalities for our study on the basis of their GIDA character and low-economic class levels. The choice of the municipalities was intended to allow us to test whether or not lower purchasing power has contributed to the failure of the program despite the fact that BnBs are mandated to sell medicines at affordable level. In Nueva Vizcaya, we were able to gather data in communities, in which the farthest community from another town center that could cater to health needs is at 14 km. In Aurora, our farthest community, located uphill, from the capital is at 63 km. With the exception of two among five sites where we conducted our FGDs, public

transportation is relatively expensive and limited depending on the time of the day. Special arrangements though with single motorcycle units can be made but is also costly.

Before proceeding in the data gathering proper, we sought permission first from the village officials. The visit to the village hall or at times, to the house of the village leader involved a courtesy call and an introduction on what the study was all about. Once the permit was secured, the researchers asked the assistance of the village leader or their Barangay (village) Health Workers (BHWs) to identify participants both for the FGDs and the IDIs. We also used a snowball sampling technique, where an identified participant was asked to refer other participants in the FGD. Prior consent was asked for the use of voice-recording device.

Voice files were then transcribed. For purposes of presenting the results to wider audience, the transcriptions were translated into the English language. The transcripts were thematically analysed, allowing us to identify major themes that emerge in the transcripts. By examining these themes, the researchers were able to analyze the extent by which the variables contribute to the failure of the BnB in their particular locations and contexts.

The study was sent for prior ethical evaluation of the university ethics board.

## Results

We present first the attitudes of participants pertaining to their health-seeking and medicine purchase behavior whenever they or a family member feels ill. We also show the narratives that explain why there was a regular BnB patronage among participants. We then proceed to stress the narratives on purchasing power including perceptions on BnB image as well as medicine demand. Statements from the BnB operators and former councilpersons assigned in the village health sector were also imbedded after the participants' narratives for triangulation purposes.

### Preference on health-seeking measures without financial cost

Participants from these GIDA communities seem to tell a common story. Whenever they feel sick or one of their family members, they tend to follow a pattern of health-seeking behavior that does not carry fees or costs. Financial constraints among the participants led them to these strategies. Aside from seeking free medical check-up usually in village health centers, participants also admitted having to prioritize getting free medicines therein sometimes even in the absence of prior consultation;

> We go first to the health center because it's free there. It's difficult if you do not have something to pay for medicines so we really need to get the free ones.
>
> Our life here is hard, we do not have money. We just rely on the health center. If there are no free and available medicines, then we cannot have what we need.

Some others try alternative strategies even before going to village health centers to "personally medicate" without the financial burden such as relying on herbal medicines and consulting spiritual healers. Relying on these strategies "work well" for the participants since herbal ingredients and healers' services were (almost) free and accessible;

> Sometimes, before I consider going to the center, I try herbal medicines like the Lagundi leaf for cough. I do that if the condition has not yet worsened. But if I really need to take antibiotic, that's the time I consult so that I can get free medicine.
>
> There was a time when we really had no money, I brought my second child to a spiritual healer because my child was suffering from a form of severe skin rushes. The healer rubbed the skin with a mixture of oil and gas then instructed us not to allow the child to eat some seafood within three days. The rushes dried off eventually.

This was also confirmed in the IDIs

> People here try to use herbal medicines, they boil leaves and use the water to gently massage their forehead, feet and their back muscles.

### Botika ng Barangay **as secondary source of accessible and cheap government medicines**

For the participants, village health centers are the generous drug outlet in the community where medicines can be accessed freely. This is evidenced by the narratives revealing the pattern of seeking cost-free treatment and medication therein. However, medicines are not always available as these health centers also run out of supply. In these cases, the BnB becomes the next source of medicine in the community. Only this time, access to medicines requires payment;

> "If the health center has no available medicine which I could have freely, then I am forced to buy in the Botika ng Barangay (BnB). If the BnB does not have what I need then I go to the town."
>
> "I go to rural health unit for my medical consultation and as much as possible to get free medicines from them but if they don't have the medicines, then I just go home and buy the medicines in the BnB."

However, despite being ideally affordable, some participants admitted simply not to have the purchasing power to acquire the needed medicines whenever they needed to.

> "I could not just buy medicine even if they are cheap. Our life is difficult. I rely on massage and steaming of leaves to ease the pain I feel."
>
> "I do not have the capacity to buy whenever I need medicines. So, what I do is that I borrow money then I just pay afterwards."

### Botika ng Barangay is patronized due to proximity, cheap medicines and credit accessibility

Participants perceive BnBs as a very accessible drug outlet. Located in their very communities, participants avoid costly transportation going to town centers to purchase medicine needs. True to the intention of BnB program, the BnB stores were recognized as sources of cheap medicines by the participants. In addition, as already stated, participants in these GIDA communities do not have the financial capacities to just purchase medicines whenever the need arises. Under these conditions, participants appreciate BnBs since they could negotiate with the operators regarding payment (sometimes, participants admitted not paying at all for the medicines they took). These seemingly positive points attract the participants to patronize the BnBs;

> "The BnB was really helpful to us. It was just here in our village and we could ask the attendant to just give us what we

need for our children even without immediately paying for the medicines in times when we really had no money."

"Aside from having cheaper medicines, I buy from BnB so that I can instantly take the medicines that I need since it is just located nearby."

This was also reflected from the IDIs;

"BnBs were really helpful especially for our very poor constituents because they do not have the financial capacity to buy in town. Here, they can just walk towards the store. That's why it was really helpful especially during emergencies."

While respondents express gratitude about the existence of these small drug outlets in their communities, participants lament the limitedness of the available medicines, or their lacking medicine supply;

"Sometimes, I think that the BnB here in our community was not that good because they run out of the medicines that I needed to buy. They told me that they were not yet issued the medicines and a lot more reasons. So, I could not do anything about it."

"I think it was better if medicines were not limited in our BnB. What if there was an emergency and the patient was dying? It is doubly hard for us because transportation here is also difficult especially during nighttime. If medicines are readily available to us, we can have them whenever we need."

"Medicines were not complete. They only had few chosen sets of available medicines. So, the BnB was not that responsive to our needs."

### Perception about Botika ng Barangay image

The physical image of BnBs bears no negative consequences on the participants' trust to BnB medicines. BnBs' structures were not quite physically appealing, and medicines were not normally stored ideally similar to regular drug outlets. Our visit to the villages allowed us to see the former spaces for BnBs. Interestingly, it was wrong to think that all BnBs had a separate physical structure since in some locations, BnBs were just a mere cabinet of medicines located within the operators' house or within the village hall. Despite these, participants deem these ideal physical set-ups as irrelevant to their quest for cheap and accessible medicines;

"Our BnB was small. But I admired it. I was really grateful that we had something like that because it allowed us to access medicines whenever we need."

"It did not matter to me. Big or small drug outlet for me is the same. They contain the same medicines. The paracetamol in big drugstores is the same paracetamol in small ones."

### Preference for the branded medicines over generic ones

There appears to be a perception of the supremacy of branded medicines versus the generics in terms of their effectivity. Participants express how they preferred purchasing branded medicines thinking that they were more effective and could take effect immediately. This mental disposition was in fact unfavorable for BnBs since BnBs' medicines are all generic as required by the government.

"The branded ones are really effective. You can feel the effect of branded medicines quickly."

"One time, I was able to compare the two ointments that I used. One was generic, and the other was branded. The branded one was expensive. And I really saw the difference. The expensive one is more effective."

"The branded medicines have higher contents and therefore can easily treat the illness. The generic ones have lower quality, but they are usually purchased because they are cheaper."

While the preference is clear, the purchase intent is actualized in buying generic medicines. The shift is obviously because of the lower purchasing power of the participants;

"I end up buying generic medicines. If I only have enough money, I will buy branded medicines in order to get well immediately."

"Because of our financial difficulties, we choose to buy the cheaper ones. But in times when I feel that the generics are not effective, that's the time I am forced to buy branded medicines."

### Speculations about BnBs' failure

Participants appear clueless about the fate of their respective BnBs in their communities. They were surprised that BnBs just ceased to operate unannounced. Nonetheless, they had ideas on why their BnBs just suddenly stopped operating;

"It was I think has gone bankrupt because people continued to loan the medicines without paying them in due time."

"Though there were unpaid credits, there should have been additional budget to buy medicine supplies. I think that was the problem. There was no available money in order to resupply the medicines."

This was consistent with the remarks during the IDIs;

"Others do not really have the money to pay, so they just loan the medicines. Until now, some of them haven't really paid."

"That was it. The debts piled up. Life here is difficult, when you tell them to pay, they would just tell you not to bother so much since the medicines were from the public funds anyway."

The participants were unhappy about the closure of these drug outlets since it meant greater cost and difficulty in physical accessibility;

"This time, we are spending so much energy, time and money in just buying medicines. We have to go to town centers which is very costly for us."

"Nowadays, you need to go farther and spend money for transportation in order to buy medicines. Unlike before, you just have to walk. So, you have to spend for your fare aside from the medicines."

## Discussion

### Botika ng Barangays' proximity, affordability and credit accessibility attract community consumers

The three variables – purchasing power, perception on BnBs as a medicine store, medicine demand – by which we built our argument in this study have no influence on BnBs' failure in GIDA communities. We found out that BnBs were even the top go-to drugstores

for the community consumers. This despite having poor purchasing power. The idea that BnBs are patronized, however, is not really surprising given that people's limited resources match the price of BnB products. Such entails that consumers' lower purchasing power has nothing much to do with the failure of the BnBs. That is because as a program, BnBs are designed to really cater to people with poor financial ability to purchase medicines. Moreover, BnBs are far from the usual "look" of medicine stores in the markets; some others are built within the local village hall or inside the operators' house where medicines are stored and sold in tight spaces of cabinets with unregulated temperature. BnBs, in other words, had poor physical image so to say. While store image is found to be important in relation to perception of products' quality,[50] customer satisfaction,[51, 52] and repatronage,[53] participants seemed to care less. Consumers maintained that physical aesthetics had no bearing in their overall perception of the quality or effectivity of medicines therein. This is evidenced by the fact that BnB medicines continued to attract consumers despite being placed in not so presentable spaces. Consumers, after all, return to purchase in stores they perceive having quality products.[54] This suggests that the relatively poor physical image of BnBs does not hurt purchase intention among residents. Hence, we infer that the material condition of these drug outlets does not produce bad reputation and contribute to BnBs' failure. Our findings also indicate that unfulfilled medicine demand does not necessarily contribute to BnBs' failure. In fact, the narratives consistently showed that, despite the limited range of medicines being sold in BnBs, it did not have discouraging effects on consumers' intent to purchase, providing us with no strong evidence that may link unfulfilled medicine demand to BnBs' failure. Nonetheless, we do not think that there is any other way for the residents to negotiate the situation but to really patronize BnBs whether or not these small drug outlets offer a wide range of medicines. Being far from town centers and having limited financial resources, residents had no choice but to cling on what was presently and only available.

The reasons for patronizing BnB despite consumers' poor purchasing power, aesthetically challenging BnB stores, and limited available medicines which do not match consumer demands are deeply imbedded within the narratives. First, participants consistently praised BnB's proximity. Being nearby, BnBs had been the immediate source of medicines next to village health centers (especially if the latter do not have the needed free medicines). It allowed them to access medicines confidently within a walking distance. In addition, having a neighboring BnB means more than being able to access medicines immediately; it also means avoiding the transportation cost going to town centers just to buy some medicines. Participants therefore put more premium on BnB's proximate character than its "corporate image". This is consistent with many studies citing the significant and positive influence of geographic proximity to consumer behavior.[55–57] Second, participants commended BnBs' cheap medicine prices. Having very little capacity to purchase, residents deem medicine affordability as an extremely desirable feature of BnBs. Having cheaper medicines on-site, participants were spared from relatively expensive medicines and costly transportation fares when buying them in private drug outlets in town centers. It is worthy to note however that the preference for BnB medicines was molded by a limited purchasing power. As participants held the idea that generics were inferior to branded medicines and therefore should had been (partly) the reason not to patronize BnBs (as they only sell generics), the cheaper price of BnB medicines kept people from patronizing the same. This is not surprising considering that affordability shapes purchase intent among financially constrained consumers.[58–60] Third, across all our locations, residents were grateful about their credit accessibility to BnBs as poor consumers welcome access to loanable items.[61] This accessibility might have been facilitated by the fact that residents patronize BnB products to begin with. Viswanathan (2007) claimed that people patronize particular stores so that they may access credit in them in times of hardship.[62] And the fact that stores may offer credit without corresponding interest attracts further customer loyalty.[63] Indeed, Participants were able to loan medicines from BnBs without penalty. Hence, loaning medicines became a peculiar character of these tiny drug markets. Not only that they could access these medicines without the corresponding charges at first, consumers also admitted being able to access them outside the operation hours of the BnBs, sometimes even during the wee hours of the night. Perhaps, the fact that some of these medicines are nearing their expiration helped operators decide easily to just lend them away. Such practice added to a sense of highly informal arrangement. Overall, proximity, affordability, and credit accessibility reinforced confidence to BnBs as a dependable drug outlet in the community.

There was, however, a unified voice across our locations of participants' desire for BnBs to sell all kinds of medicines similarly available in regular pharmaceutical stores. Such a yearning prepares us to understand how GIDA areas reflect rural health aspirations. With struggles in physical accessibility, and relative expensive transportation costs, poor residents in these communities could only wish for a drug outlet that delivers an extensive list of medicines, cheap or not, generics or otherwise. Residents desire this especially because poor communities are battered with life-threatening diseases like malaria, influenza, and tuberculosis.[31] It appears that the un-readiness to dispense all kinds of medicines hinders the full appreciation of BnBs. This, however, may still be a very remote possibility in GIDA areas. Paying the salary of legitimate pharmacists or pharmacy assistants who will man the drugstores is an enormous barrier to financially constrained villages and localities. This is in view that only drugstores attended by them can legally sell wide range of medicines including the ones with prescriptions.[64]

## Informal arrangements contribute to Botika ng Barangays' failure in geographically isolated and disadvantaged areas

While consumers patronize BnBs, they do not always translate into actual profit. The medicines, despite being really cheap, were allowed to be loaned and never be paid in return, albeit unintentionally. The narratives convey a unique anomaly in these contexts. Therefore, unlike the usual business causality of more consumers means more profits, the program suffered financial setbacks in the process. Lower purchasing power and the inability to pay credit purchases, while both may play as poverty indicators, did not necessarily share the same blame on BnBs perceived failure. A consumer who has a limited power to buy is different from a consumer who does not know how to pay its debts. We found out that only the latter is gravely responsible for the failure of the BnBs as the unpaid debts effectively ended BnB operations in these GIDA areas.

The fact that BnBs became open for credits explains that situation. BnB operators or attendants are easily swayed to hand over medicines to their neighbors under the pretext of payment later scheme. Overfamiliarity to one another may have played a role in such leniency especially that residents in these villages are usually relatives to one another (evidenced by the narratives) so that giving away the medicine as a credit is a much easier decision to make.

It could also be out of humanitarian reasons as operators and attendants, being neighbors or relatives of the consumers who knew well their economic standing and unfortunate situation in life, could have been too sympathetic to them. These may appear particularly true since allowing people to borrow helps affirm and strengthen existing social ties.[65] In addition, operators rely so much on trust and confidence for assuring payment. They have no strict and strong mechanisms to force people to pay their debts. There were no collateral nor contract that can be enforced should BnBs decide to go to court. There is also no mechanism to exclude them from future borrowing. The absence of these mechanisms, however, is perfectly understandable since otherwise their presence would appear awkward and uncalled for due to the very casual nature of exchange in the community and the minimal amount of money involved. These lender-borrower arrangements are highly informal since they are built on social ties alone.[65] And when arrangements or agreements are less formal, there is less pressure to fulfill obligation on the part of the borrower.

Still, these debts remain unpaid. Though non-payment may harm personal relationships,[66, 67] the borrowers appeared indifferent. The extreme lack of money may explain the non-payment, but a particular response could further shed light about why there was unwillingness to be an aggressive payor. She mentioned that the BnB is a public program, thus, whatever cost will ultimately be shouldered by the government. Perhaps, this is also the same reason why the operators themselves were not keen and uncompromising enough to collect the payment since in the first place, the medicines and other financial costs were not from their own. To make the matter worst, there was virtually no accountability on the part of the operators with regard to these unpaid debts. Obviously, the BnB program does not intend to have these informal arrangements. Meaning, allowing medicine credit is not part of the program policy. In that sense, it is a mistake facilitated in the community level. These missteps are now proven critical to the sustainability of BnBs. Especially so because the sustainability of BnB stores lies in their ability to obtain profit returns to replenish medicine stocks and pay for the trained operators. Indeed, poor regulation practices do not help businesses to thrive.[68]

Allowing medicine loans and the absence of accountability became the hallmarks of informal arrangements which led to BnBs' gradual demise. Though it is the consumers' fault that directly results to BnBs' failure in GIDA areas, BnB managers or operators cannot be blameless. For at large, this is a management issue which ultimately paved way for the negative consumer behavior, specifically manifested in the unwillingness or the lack of aggressiveness among consumers to pay the loaned medicines. Overall, our evidence seems to suggest that informal arrangements thrive in GIDA areas where BnB operators are doing business within a community of relatives and common acquaintance.

## Conclusion

Government programs, which aim to better the conditions of the underprivileged, have to be consistently re-evaluated to ascertain their effectiveness and efficiency. Previous assessments and studies regarding BnBs were commendable as they shed light on why some BnBs were failing, and thus, help policymakers to focus on the identified areas to strengthen program resiliency. While those related studies allowed stakeholders to understand the phenomenon of dwindling BnBs owing to management and medicine supply issues, our attempt, on the other hand, took a different turn, and examined the phenomenon from the perspectives of the consumers.

Our study suggests that, within the contexts of GIDA areas, consumers indeed had big influence on the failure of BnBs. However, in so far as the study's variables were concerned, we found no empirical evidence that may directly link poor purchasing power, perception on the poor physical image of BnBs, and unfulfilled medicine demand to BnBs' failure. Instead, the phenomenon is found out to be closely related to narratives of non-payment of medicine loans. Unpaid debts over "purchased" medicines surfaced to be the strongest challenge against hopes of BnBs' sustainable operations. Uncollected "collectibles" as a challenge to business sustainability is not unique in this study. Many businesses are haunted by similar problems.[69–71]

The fact that the BnB medicines are not free means that the government is not prepared to shoulder all the cost. But because some of these BnBs are in extremely poor areas, informal arrangements which we observed in this study might still persist. We recommend that the government may begin to look at the feasibility of offering medicine subsidy in GIDA areas to help BnBs become more resilient. In addition, the government must also make sure that operators are accountable for the unpaid medicines.

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## Author contributions

Z.C.C. project administration, conceptualization, methodology, investigation, supervision, writing-original draft, formal analysis. A.A.S.R. project administration, conceptualization, supervision, investigation, writing-original draft, formal analysis. I.G.H., A.P.A.U. and A.T. investigation, writing-original draft, formal analysis.

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## Data availability

For request of original data, kindly contact Ms. Angeli Ann S. Rescober (angeli.ann.rescober@adamson.edu.ph).

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