



THE NATIONAL
RESEARCH INSTITUTE
PAPUA NEW GUINEA

DISCUSSION PAPER

MANAGING MARKETPLACES:
LESSONS FROM A COMPARATIVE
STUDY OF FOUR MARKETS IN
PAPUA NEW GUINEA

Elizabeth Kopel
Lewis Iwong

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Authors' contributions

Elizabeth Kopel: Conceptualisation, design, data collection, writing and editing.

Lewis Iwong: Data collection and preliminary analysis

Abbreviations and Acronyms

DNPM	Department of National Planning and Monitoring
JICA	Japan International Cooperation Agency
LLG	Local Level Government
MFAT	Ministry of Foreign Affairs and Trade
MOU	Memorandum of Understanding
MTDP	Medium Term Development Plan
NSO	National Statistical Office
NCD	National Capital District
NRI	National Research Institute
PNG	Papua New Guinea
SMEs	Small and Medium Enterprises
UN	United Nations

Abstract

Markets provide food and income for households, revenue for local and provincial authorities, and are vital spaces for informal meeting and socialisation. This paper is based on a comparative study of four provincial markets in Papua New Guinea (PNG). It aims to analyse critical success factors and the challenges that impede creation of an enabling environment for markets to operate, and to better understand why some markets work well while others do not. Using a preset interview schedule, data were collected from interviews with market managers and local and provincial authorities, and analysed under various themes. The findings show important good practices and provide lessons for the establishment and management of markets. Ensuring that the function of markets is part of provincial or local authority responsibilities provides a policy and regulatory framework and facilitates sustainable resource allocation for markets. Better management of infrastructure and market services, including improved access to water, hygiene and sanitation services, creates a genuinely enabling environment with better opportunities not just for vendors, but for all market users, and generates revenue for local and provincial governments.

Introduction

The last Papua New Guinea (PNG) national Census figures showed that only 360,732 people were in formal employment out of a population of 7 million (National Statistics Office [NSO], 2013). This means that the livelihoods and the wellbeing of the majority of the population are supported by agriculture and the informal economy. Open markets remain the biggest and most visible part of the informal economy. PNG has set itself ambitious economic and human development targets to see improvement in the wellbeing of citizens (Department of National Planning and Monitoring [DNPM], 2010, 2018). An important vehicle to drive efforts towards realising actual improvement in human wellbeing is through the provision and improvement of marketplaces. Given the importance of the function of markets, it is crucial that an enabling environment is created to facilitate economic activities as well as generate spinoff businesses. Nationally, the National Policy for the Informal Economy 2011–2015 committed the state with the responsibility to provide the necessary enabling environment for business activities (GoPNG, 2011). For open markets, the enabling environment translates to creating, facilitating and supporting the development of policy and regulation, provision of sustainable support infrastructure, facilities and services in markets as well as effective management.

This study was informed by evidence from recent research conducted by the Informal Economy Research Program of the National Research Institute (NRI) on markets in the National Capital District (NCD), which revealed two important points. First, open market trading is increasingly becoming a full-time activity, transforming it into the equivalent of a job (Kopel, Hukula, Kutan, & Iwong, 2017). Second, the biggest vendor concerns relate to the need for provision of an enabling environment: improved services and facilities to improve markets and improved management in a secure and safe environment (Kopel, Hukula, & Iwong, 2017).

While improved market infrastructure, amenities and effective management remain wanting and is characteristic of many markets around the country, two markets – Alotau in Milne Bay Province and Kokopo in East New Britain Province – are often considered as great models, in terms of management, provision of facilities and services and safety. The purpose of this study was to compare these two markets with two of the biggest markets outside of Port Moresby: Mt Hagen and Lae markets. The objective of the study was to analyse critical success factors of open markets and the challenges that constrain the facilitation of an enabling environment for users of markets.

The findings of this study will provide a better understanding of the reasons why some markets work well by identifying best practices for other markets to learn from, while identifying lessons from those markets that do not manage as well.

Literature review

Marketplaces play an important social and economic function in sustaining and improving the lives of people and the economy. Early work on French Polynesia by Pollock and Crocombe (1988) highlighted that markets play a vital role performing a dual function of providing access to fresh locally produced food for urban residents and an opportunity for income generation for market vendors, thereby improving food security. Keen and Ride's (2019) recent study of informal markets in Honiara, Solomon Islands affirms the argument that livelihoods are supported to a great extent by income from market vending, rural-urban connectivity and food security.

Markets contribute to the local and national economy by providing employment and business opportunities for small and medium enterprises (SMEs) and utility service providers (Dewey, 2011; Foundation for Development Corporation, 2010). Revenue generated through market gate fees and rental of other market facilities is an important source of income for local governments. For instance, Dewey (2011) noted that in Suva, market-generated revenue comprises almost half of all income for local government in some areas.

Further, markets are vital hubs of social, cultural exchange, meeting and socialisation in PNG as they are throughout the Pacific Islands (Dewey, 2011; Foundation for Development Corporation, 2010; Keen & Ride, 2019; Pollock & Crocombe, 1988). In an article on global market cities, Flynn (2014) described markets as "the spaces in the city where culture and commerce invariably intersect". Early studies of markets in PNG conducted by Epstein (1982) found that markets provide a social function as a critical avenue for both rural and urban people to exchange news and information and socialise.

Market selling in PNG's major urban centres has increasingly become a full-time income generation activity to support livelihoods (Kopel, Hukula, Kutan, & Iwong, 2017). Given the significant social and economic benefits of markets, there is a strong argument for market policy, planning and implementation to be integrated into the mainstream municipal and local government policy and regulatory systems. This would provide ongoing support, resourcing and services as part of the municipal authority's normal function (Keen & Ride, 2019). Further, Dewey (2011) suggested the need for authorities to recognise that markets are a major source of revenue and invest in improving the market system, including infrastructure and promotion of agricultural production.

However, research conducted in Port Moresby's municipal authority managed markets revealed that many markets need major work to provide adequate shelter, seating and display spaces, safety, access to clean water and improved sanitation facilities (Kopel, Hukula, & Iwong, 2017; Kopel, Hukula, Kutan, & Iwong, 2017). A positive step in this direction has been the establishment of a market services division within National Capital District Commission to oversee market functions, with technical assistance from UN Women as part of the Safe Cities Project (Hemelrijck et al., 2019). At the same time, the local Member of Parliament for the Port Moresby South Electorate has been instrumental in funding and overseeing the establishment and improvement of markets in this electorate over recent years (Kopel, Hukula, & Iwong, 2017). The widespread lack of market policy and regulation in PNG is similar to other Pacific Island countries. For instance, Dewey (2011) noted that in Suva, policy makers undervalue and routinely ignore the contribution of market trading to the local and national economy. Keen and Ride (2019) found that informal markets in Honiara continue to remain excluded from policy and planning systems.

PNG's National Informal Sector Development and Control Act 2004 and the National Informal Economy Policy 2011–2015 to develop and regulate this area is a testament of the government's recognition of the importance of the fact that 85% of the population derive their livelihoods from agriculture and the informal economy. Out of two categories ('arms') of objectives of the policy, one is to create an enabling environment for the provision of public goods and services, with the other being financial inclusion. Markets are essential, as the main form of engagement with the modern economy for much of the population is through selling fresh food and other goods.

Further, PNG's current Medium-Term Development Plan III 2018–2020, sets the government's development priorities and its overall objective to secure PNG's future through inclusive and sustainable economic growth (DNPM, 2018). To achieve this, MTDPIII emphasises bringing development to the district level with a focus on developing district infrastructure and economic enablers, including markets, roads and utilities such as water, electricity and telecommunications (DNPM, 2018). Sectoral and provincial and district level policies and plans are expected to be aligned to national plans and development goals. For inclusive development to be realised by the majority, policy, planning and delivery of market services need to be incorporated into the provincial and local level policy and regulatory systems. As markets are under the responsibility of provincial and local governments, it is their duty to develop policy and plans and implement activities.

However, market services have for a long time not been made part of the policy and planning framework of provincial and local government systems. Investment in improving market infrastructure with improved facilities, services and effective management is critical to create an enabling environment for economic activities to be set up, grow and contribute to achieving inclusive and sustainable growth. Provision of improved markets is also vital for promoting agribusiness development and long-term development opportunities for income generation and facilitating broad based growth (Bonney et al., 2012). Access to infrastructure and services can facilitate connectivity between urban and rural areas and contribute substantially to increasing incomes, improving livelihoods and reduce poverty (Keen & Ride, 2019). This was shown by the socio-economic impact assessment of the redeveloped Mt Hagen market (Chang et al., 2014; Uniquist, 2013), which brought huge social and economic benefits by providing thousands of vendors, mainly women, an opportunity for income generation through selling of fresh produce and handicraft. These positive outcomes have extended well beyond the area to places where produce sold at the Hagen market reaches, such as neighbouring provinces and other parts of the country, including Lae and Port Moresby.

The next section outlines the methods for data collection.

Background to the markets under study

This section provides a brief background to the markets under study.

Mount Hagen market

Hagen market is located in the heart of the Highlands with road connections extending to Lae and Madang on the coast, and it is also connected by road to several resource enclaves (Kutubu, Porgera and Mt Kare). It is the biggest market in the highlands region and one of the busiest markets in the country, renowned for the rich variety and abundant supply of fresh food. In 2006, major redevelopment of the market was undertaken with funding from Australian Aid under the Incentive Fund at a massive cost of K7 million (Chang et al., 2014; UniQuest, 2013).

The market is owned by the Hagen Rural Local Level Government (LLG) and market revenue is retained by the Hagen Rural LLG, while services are provided by the City Authority. This is a major source of conflict as the market is a considerable source of revenue. The city authority is of the view that the market owner, Hagen Rural LLG, should be responsible for its waste and that it is not the job of the urban authority to remove waste (PNG Post Courier, 2019). In contrast, Hagen Rural LLG is of the view that its business arm, Hagen 2, is responsible for market cleanliness (Taime, 2018). At the time of fieldwork for this study, in a personal interview, the General Manager for Hagen 2, who is caretaker manager for the market, stated that market management is responsible for organic waste from inside the market and any waste outside the market is the responsibility of the City Authority. The ongoing argument over who should be responsible for cleaning prevents any dialogue between stakeholders to take constructive action to find a solution to the issue. This explains why so much waste is piled outside the market and it has become a subject of intense criticism in both print and social media for ruining the image of the market and the city (Taime, 2018; Yopson, 2017).

A socio-economic impact study of the market revealed that it has significant issues of overcrowding, breakdown of law and order, sale of prohibited store goods, illegal collection and misuse of market fees, and deterioration of market facilities and services (Chang et al., 2014; Uniquest, 2013). A number of recommendations were made to improve performance and management, including separation of livestock and store goods from fresh produce and separation of wholesale from retail produce sales, conduct of public awareness activities and enforcement of market rules and regulation, as well as engage ongoing independent third-party monitoring and assessment of market management. None of the recommendations appear to have been implemented at the time of data collection for this study.

Alotau market

Alotau is the capital of Milne Bay Province, a maritime town that does not have any road connection to any other province except by air. Due to this, the Alotau market serves only the local population, and it is owned by the Huhu LLG. Similar to the case of Mt Hagen market, Huhu LLG keeps the revenue whereas the Milne Bay Provincial Administration provides garbage and utility services. There is a suggestion that the revenue should be shared with the provincial administration. This is a potential source of conflict that needs to be ironed out between the two authorities. The building used as the market at the time of data collection for this study was funded by the national government through the National Fisheries Authority. It is a temporary market with plans for a bigger market to be built adjacent to the existing market by the sea front with donor aid from Japan International Cooperation Agency (JICA). Construction work on the new market was expected to start in 2019.

Alotau market is the smallest of the four markets covered in this study, but it has an excellent system of management and accountability, with detailed daily, weekly and monthly records of revenue raised.

Alotau has two types of markets. The main market is for the sale of fresh produce, betelnut and seafood whereas the 'informal' indoor markets are intended for the sale of manufactured or store-bought goods and cooked food. Two informal markets were built, one by the Provincial Government while the second informal market is owned

by the District Women's Association. Revenue collected from informal markets are kept by the respective market owners.

This unique approach provides a safe and clean shelter for vendors to sell and prevents street vending all over the town. Locating store goods and cooked food for sellers in one venue protects vendors from the elements but also eliminates the negative perceptions of street vendors and ongoing confrontation with law enforcement agencies that is often witnessed in Port Moresby and Lae.

Lae market

Lae market was planned by the Lae Urban LLG in consultation with the Lae District Administration and Morobe Provincial Government. It is owned by the Urban Authority and the City Council. The original market was built in the 1960s and redeveloped in 2016 by Lae Urban LLG and the National Fisheries Authority at a cost of K950,000. This market is connected to Madang and the highlands provinces by road with huge, ongoing supplies of fresh produce. It also has a huge supply of locally produced food. This has led to extreme overcrowding in the current market and there is no space at all to provide any additional services. Management noted that there is a Lae District Plan with a memorandum of understanding (MOU) between the Lae Urban LLG and New Zealand Ministry of Foreign Affairs and Trade (MFAT) to jointly fund redevelopment of the market, but this is yet to be confirmed.

Kokopo market

Kokopo market in East New Britain Province serves only the local population, like the Alotau market, and it is the biggest of three established markets in East New Britain Province, with Rabaul and Kerevat being the other two. The East New Britain Market Authority is responsible for all three markets in the province. The Market Authority was created by the provincial government under the Provincial Markets Act with a full governing board to oversee activities of the Market Authority. Membership of the board comprises key stakeholders (town manager, and representatives from commerce and industry, women, non-Government organisations, market vendor representatives) and is chaired by the Provincial Administrator. The Market Authority is self-sustaining and funds its activities and pays staff salaries and its operations using revenue generated from the markets. The market management seeks sponsorships and engages in fundraising activities when additional funding is required for special projects. The next section presents the results of the interviews with the provincial administrations and LLG authorities and managements of the four markets under study.

Methods

This study was conducted in four provincial markets at Lae, Mount Hagen, Kokopo and Alotau. Initial contacts were made by writing formal letters to Provincial Administrations in each province requesting permission and assistance to conduct the study in the selected markets with follow-up phone calls for confirmation. Upon arrival in the provinces, the research teams obtained clearance from the provincial administrations prior to commencement of data collection. Milne Bay Province Administration has a formal system of registration to carry out research, which the research team had to comply with upon arrival in Alotau. The research teams comprised of three NRI staff and four local research assistants recruited from each location and trained in half a day to administer the market vendor instruments. The assistants were two males and two females, who were either graduates or senior university students with basic research skills.

The questions were pretested with staff at Gerehu market and revised prior to printing. Field data collection was done over three days in each market over a period of three weeks from August to September 2018. Data were collected using two prescheduled questionnaire instruments through face-to-face interviews. One instrument was used to collect data from market management (see Appendix A). The other instrument was used to collect data on policy, regulation and management of municipal markets from key informants in the provincial administrations and LLGs (Appendix B). This paper is based on the analysis of the results of information obtained from the provincial administrations and their respective market managers, as well as key informants.

Sampling of markets and respondents

The selection of markets was purposefully done, given resource constraints and local knowledge. Lae in Morobe Province and Mount Hagen, Western Highlands Province, were chosen as these are the biggest markets outside of Port Moresby and are located in the second and third biggest towns in the country. These markets are compared with Kokopo in East New Britain and Alotau in Milne Bay as the latter two markets are considered to be better established with adequate infrastructure and services, and are well managed. We aimed to include Provincial Administrations, LLG representatives where markets are owned by LLGs (Alotau and Mount Hagen) and market managers in the sample. However, this was not possible and the sample was comprised of 8 out of 10 target respondents from the four markets. Three provincial administrators, one LLG representative and four market managers or coordinators were interviewed. Responses from interviews of respective respondents from each market were analysed in MSWord under specific themes and presented in the results section. Refer to Appendix C for the list of people who were interviewed.

Limitation

The small sample size is a limitation and the findings of the current study cannot be interpreted as nationally representative of all markets. However, it provides an indication of how markets are managed and the types of issues that exist in other markets.

Results

The results of the study are presented in this section. Tables 1–4 outline the results of policies, regulations and management aspects of the four markets covered in this study that are seen as crucial.

Table 1 : Policy, regulation and management of markets

Market	Policy and regulations	Ownership	Market governance	Management	
				Manager	Management team
Kokopo	Market authority created by Provincial Government under Provincial Market Authority Act	ENB Provincial Government	Market authority responsible for three markets (Kokopo, Rabaul and Kerevat). Market board setup under the Act. Membership of market board comprises membership of different stakeholders including a women's representative and is chaired by the Provincial Administrator. Management reports to the market board on a quarterly basis.	Career manager, appointed by the board. Manager recruited in 2015 through provincial recruitment process.	Market manager oversees recruitment of management team and it comprises: <ul style="list-style-type: none"> • Environmental Officer for public health • Nutritionist to monitor and ensure that healthy and nutritious food is sold. • Officer in charge of law and order • Accounts team for fee collection and record keeping • Human Resources section East New Britain Market Authority has a total of 74 staff across the three markets.
Lae	Market has bylaws	Lae City Authority under Lae Urban LLG	Market operates under Lae City Authority. Market Coordinator reports to Lae City Authority. Currently employs 3 women	Manager is employed by the Lae City Authority	Lae City Authority Management oversee recruitment of Market Manager, Coordinator and other employees through the formal recruitment process of Lae City Council.
Alorau	Market bylaws in place	Huhu LLG	Management Committee manages market. LLG President chairs Market Management Committee. Women not represented.	Management report to Huhu LLG area manager	Managed by Market Management Committee. Those on the management committee apply to the area manager and he appoints the committee.
Mount Hagen	Market has bylaws	Owned by Hagen Rural LLG	Board comprises of councilors/ elected leaders No market board at time of study due to 2013, failed LLG election. market is managed by Hagen 2 under the Company's Act. (Hagen 2 is a business arm of Hagen Rural LLG). Women not represented in market governance and management.	Current manager employed by Hagen 2 has been tasked to oversee the market.	Market manager is usually appointed by the Board. Management is selected by Hagen Rural LLG. These are political appointments. The president of Hagen Rural LLG has a major influence on market management and the team that works under him. Caretaker manager does not know the number of market workers at each of the three gates.

Table 2: Provision of market infrastructure, services and utilities

Market	Infrastructure	Services and utilities	
		Utility services	Provision of other services
Kokopo	<ul style="list-style-type: none"> Permanent shelter for protection from the elements Concrete tables for display of goods and seating Separate enclosed buildings for cooked food and sea food/raw meat sales Paved footpaths No fencing, but it's not necessary; it is quite safe Separate enclosed buildings for sale of cooked food and raw meat and fish. 	<p>Wash services available for market users on user pay system:</p> <ul style="list-style-type: none"> Water to wash produce. Taps opened couple of times a day. Toilets Showers Regular collection of waste Rubbish bins. 	<ul style="list-style-type: none"> Communal area for free community use or pay to use for commercial events Banking (BSP ATM and agent) Private medical practice Cafeteria sells food and drinks AG Mark Kiosk sells agricultural supplies Billboard for advertisers Law and order office.
Lae	<ul style="list-style-type: none"> Permanent shelter for protection from the elements Concrete tables to display goods and seats Paved path for walking Gravel-lined floors. 	<p>Wash services available for market users:</p> <ul style="list-style-type: none"> Water to wash and clean produce Toilets Rubbish bins. 	<p>Market is too crowded, not much space to provide any additional services.</p> <ul style="list-style-type: none"> No additional services in current market as it is temporary Plans in place to provide additional services in new planned market.
Alotau	<ul style="list-style-type: none"> Shelter Paved floor Concrete table spaces for goods and seats Secure fencing Storage space for unsold goods in the main office. 	<ul style="list-style-type: none"> Limited access to office to charge phones at K2. Water and toilets available at nearby informal market as current location is temporary Regular waste removal by Provincial Government. 	<ul style="list-style-type: none"> Market manager was not aware of who collects rent from shops outside the market Plans in place to provide additional services in new planned market.
Mount Hagen	<ul style="list-style-type: none"> Permanent shelter Concrete slab tables for goods and seats Space under sheltered roof is insufficient, Many vendors sell on the pavement in the open 	<p>Currently no access to wash services:</p> <ul style="list-style-type: none"> Water was disconnected by PNG Water for high unpaid bills running into K6000/month Toilets closed due to blockage (e.g. flushing sanitary pads down toilets, rocks and sticks were also thrown into drainage pipes). Electricity was disconnected for unpaid bills 	<ul style="list-style-type: none"> Market manager was not aware of who collects rent from shops outside the market Podium for public use has been turned to storage space for vendors due to increased demand No space for additional services, the market is too crowded Caretaker manager mentioned that they need a second market for wholesale produce.
	<ul style="list-style-type: none"> Poultry and tobacco sales are not separated from food sales section. 	<ul style="list-style-type: none"> Blocked rainwater drains towards back end of the market creates pools of dirty water that take up selling space. 	

Table 3: Management of operations

Market	Operations team	Security	Goods banned from sale at the market
Kokopo	Supervisors are responsible for day-to-day functions of collecting fees, conducting safety inspections and cleaning. They report to market section managers	Security has been outsourced to a private firm to provide guards. Those responsible for disturbing peace in the market are fined K50. Serious incidents are referred to police. There are occasional incidents of pick-pocketing by town youth. If security guards do not see them first, the public usually help to apprehend such individuals.	Rules about what goods can or cannot not be sold are set by the Market Development Authority Act. Management implements these sanctions. The market is for the sale of fresh food, betelnut and goods that vendors make at home, such as meri blouses, and art and craft. Processed store goods are not allowed to be sold here. Food sanitation is highly emphasised and vendors are told not to sell food that can be contaminated easily (e.g. ice blocks in cups).
Lae	Supervisors are responsible for operations and daily running of the market. These include functions of cleaning, collection of fees and safety in the premises.	Security are employed by Lae City Council. When incidents of violence occur at the market, security intervene and sort these out. Serious cases are referred to the police.	Goods not allowed to be sold in the market include: <ul style="list-style-type: none"> • Imported vegetables • Store goods, manufactured items. Goods that cannot be sold in the market are informed by Lae City Council management.
Alorau	Management committee appoints an operations team who are responsible for daily functions of collection of fees, conducting safety inspections and cleaning.	Violence is not a major issue in the market. Management intervene and deal with minor incidents as needed.	Food market is only for sale of food. Manufactured goods are sold in the informal markets. Indigenous and traditional baskets are sold in the food market. Betelnut is sold in food market. Obviously betelnut issues of spitting and litter that are distinctively widespread in the highlands and Port Moresby are absent in Alorau.
Mount Hagen	Supervisors report to the market manager. Market supervisors are in charge of operations, responsible for day to day running of the market. Vendors pay carriers to remove decomposable rubbish. Cleaners responsible for inside the market. Surrounding area outside the market is where all the waste is deposited in huge piles awaiting removal. Market management and the Urban Authority do not agree on whose responsibility it is to remove waste accumulating outside the market.	Incidents of violence and pick-pocketing are common and occur daily. Use of home-brewed alcohol and smoking marijuana by the back entrance and moving into the market premises towards the end of the day occurs after 4.00 pm onwards. The research team observed this occurring. Vendors are often abused and their earnings and goods are snatched and/or destroyed. Management call in police for help when things get out of hand, but they do not always turn up.	Sale of betelnut and cooked food is not permitted. While this rule is applied inside the market, a lot of cooked food is sold outside by the back entrance on the rotting organic waste. It is far better for cooked food to be sold inside the market or a building in a separate section instead of vendors selling on the ground out in the open. Store goods are not allowed inside the market but a few of them were noted selling in the meri blaus (ladies blouses) section. Several store good vendors were observed selling on the pavement outside the market fence.

Table 4: Market revenue generation and usage

Market	Sources of revenue		How revenue is used
	Gate fees	Other sources	
Kokopo	<p>Rate of market fees stipulated in ENB Market Authority Act. Management applies the set rates (gate fees, fines, services and kiosk rentals) as follows:</p> <p>Fresh produce: K2</p> <p>Fish: K4</p> <p>Water/bucket: K1 (Taps open 2X daily)</p> <p>Storage: K2</p> <p>Toilet: K1</p> <p>Shower:K2</p> <p>Fine for litter: K 20</p> <p>Fine for causing trouble: K50</p>	<p>Communal area free for community use or hire for commercial purposes</p> <p>Lease of Kiosks:</p> <ul style="list-style-type: none"> • BSP ATM and BSP agent • Private medical practice • Cafeteria • AG Mark kiosk sells agricultural supplies • Advertising billboard for advertisers • Law and order office. 	<p>Authorised ticket sellers collect daily fees, reconcile and submit to accounts. Collected funds are submitted to accounts with ticket butts and this ensures that the fees go to the market authority and not into someone's pocket. Customers and the public hold ticket sellers to account by insisting payment upon issue of receipt. No receipt, no payment.</p> <p>How is the revenue used?</p> <p>Since creation of the ENB Market Development Authority, the market has been self-sustaining.</p> <p>Market revenue is used to finance operations and pay employee wages. Ongoing maintenance, security and upkeep of the market is also done with market revenue.</p> <p>Fee collectors have a target to reach through gate takings, service charges and fines.</p> <p>To further expand on its operations outside of routine expenses, management do fundraising or seek funding from alternative sources.</p>
Lae	<p>Lae City Council sets fees.</p> <p>Gate fee:K3</p> <p>Toilet:K1</p> <p>Storage: No space within premises to create office or storage space.</p>	<p>Lease of 5 kiosks at K400/month: K2,000</p> <p>Vendor pays:</p> <ul style="list-style-type: none"> • Load/ unload: K5 (Carriers) • Cleaning: K2 (to cleaners to remove waste). 	<p>Daily takings amount to about K6,000</p> <p>Funds are deposited to the trust account of Lae Urban LLG.</p> <p>It is a new trust account created recently (3 months) and all market revenue is deposited into that account.</p> <p>Revenue is collected by Guard dog security and deposited to the Trust Account at the end of each day. Deposit slip is given to Lae Urban LLG revenue section.</p> <p>How is the revenue used?</p> <p>Lae City Council uses it to pay for ongoing expenses; wages for workers; payment of utility bills, maintenance work and other social services.</p>

<p>Alotrau (Temporary market pending construction of new market)</p>	<p>Vendors pay set market fees:</p> <ul style="list-style-type: none"> • Gate fees: K3.50/day • Storage: K2/night • Charging phone: K2 • Spot fine for litter: K20. 	<p>Market committee set fees. Since the market opened (early 2018) daily revenue has amounted to almost K2000 daily.</p> <p>Lease of “informal market” kiosks at:</p> <ul style="list-style-type: none"> • K150/month (Each informal vendor pays rent to Alotrau Urban (75 stalls). Authority for kiosks is near the main market. • Informal building near the transit lodge is owned by District Women’s Association so they collect rentals (K150/month) from SME operators of kiosks. • Transit lodge rent of K5/night also goes to District Women’s Association • Toilets: K1 (owned by Alotrau Urban). 	<p>Vendors are given a ticket to show evidence of payment; no receipt, no payment.</p> <p>Daily takings are recorded and submitted with ticket butts to accounts by supervisor for banking.</p> <p>Management reports to LLG monthly.</p> <p>Operations team have IDs and uniform.</p> <p>The new market that is planned to be built is to be maintained by the LLG and will have a reserve account to cater for maintenance needs.</p> <p>How is the revenue used?</p> <p>Alotrau Urban provides services but revenue goes to Huhu LLG.</p> <p>Conflict: Urban authority feels that they should get some of the revenue.</p> <p>LLG uses market revenue to pay employees, costs of operation, sponsor local projects and delivery of local services and programs such as health and education.</p>
<p>Mount Hagen</p>	<p>Gate fees have been set but their application is not consistent.</p> <p>Charges vary depending on produce type and quantity ranging from K1 - K8.</p> <p>Higher value fresh produce fetching higher earnings like pineapple, cooking banana or peanuts are charged more than low value goods.</p> <p>Wholesale: ‘Sanap’ vendors with bulk produce such as cabbages or potatoes are charged per bag (40 litre stock feed)</p> <p>Retail: ‘Sindau’ vendors pay K1 per day/ metre selling space</p>	<p>Lease of kiosks outside market:</p> <ul style="list-style-type: none"> • Caretaker manager does not know whether SME owners who lease shops outside the market pay rentals and to whom. • Use of podium: Initially the podium was intended for public use, but the market is too crowded that vendors are permitted to use it for storage. <p>Utilities:</p> <ul style="list-style-type: none"> • Water and toilets were free when services were available, but people were careless with usage. • Electricity: Not available for vendors • Storage: No proper storage space. Vendors make individual arrangements with workmen on night duty and store goods at their own risk. • Carriers: Vendors pay carriers- ‘Taxi’ K2/bag 	<p>No clear system of accounting for collected fees by fee collectors.</p> <p>Manager is well aware that they need to tighten up the system of collecting and accounting for market revenue as it is open to abuse and pocketing of collected funds.</p> <p>Use of market revenue:</p> <ul style="list-style-type: none"> • Maintenance and upkeep of market. • Employee wages. <p>Conflict: Hagen Rural LLG as market owner keeps the revenue whereas services are provided by Hagen Urban, who feel that revenue should be shared. There has been a relentless disagreement between the two authorities over who should be responsible for waste removal services. Waste outside the market is often not picked up by town waste removal trucks, leaving piles of organic and general waste to accumulate, leading Hagen to be known as a dirty market.</p>

Table 5: Challenges and need for improvement

Market	Challenges		Skills and resources needed for improvement			
	Political	Safety and security	Resources	Skills	Self-reflection of what the market does best	
Kokopo	Elected leaders played a key role in setting up the market development authority. Now, there is no political influence in the way the market is operated.	Very safe. No law and order issues in the market. Emergence of minor disturbances are swiftly addressed by imposing penalties on perpetrators and referring serious matters to police	Need to provide sufficient space for vendors to store unsold commodities. Conduct more public education and awareness for vendors on food production, safe food handling and sales. Improving the market and taking it to the next level; for example, provide an avenue for wholesale, storage and packaging of food crops that grow best in East New Britain like taro and sell to Port Moresby, Lae or Highlands towns.	Management skills for supervisors. Staff need to have skills to work with people. A few were sent on short courses to learn negotiation skills and how to manage people. Certain sections need to learn to work together and this requires specialised skills; for example, a nutritionist, public health and cooked food vendors need to work together.	Fundraising to meet financial commitments. Strive to raise standards and follow rules of market authority to keep the market clean and safe.	
Lae	Elected leaders have a positive influence on the market. Lae MP is the CEO of the LLG. Market is owned by the LLG so there is a direct link, but in a good way. Due to previous mismanagement, the MP intervened to change management and it is now more effective.	Safety is not a major issue. Market is quite safe.	<ul style="list-style-type: none"> Market is overcrowded, too many vendors and not enough space inside: Need to extend shelter for vendors Refill gravel/pave all surfaces No room to provide storage spaces Not enough parking spaces. Need to provide additional services such as ATMs. There is a plan (Lae District Plan 2018–2022) to redevelop the market. Council signed an MOU with MFAT, but it is yet to be confirmed and implemented. 	<ul style="list-style-type: none"> Need skilled people (i.e. clerks and coordinators) to manage daily operations within the market. Workers need training in management skills. Also provide more water for vendors Need to renovate existing infrastructure, provide more tables and seats for vendors. 	Currently working on improving revenue management. After previous management was changed, sufficient revenue is coming in. Market is consistently raising K6,000 a day (Market opens 6 days a week (6 x 6000 = 36,000/ week (K144,000 a month plus K2000 from kiosk rentals bring the monthly revenue to K146,000).	

Alorau	No political influence Only issue is that vendors have raised complaints on market fees being too high for the amount of daily earnings.	Management deal with emerging issues in market operations and update LLG leaders on a regular basis.	New market construction should have commenced in 2019. Services and resources that management would like to have in the new market: <table border="1" data-bbox="948 853 1385 1384"> <thead> <tr> <th>All users</th> <th>Vendors</th> <th>Management</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> Banking agent Utility (water, toilets, lighting) </td> <td> <ul style="list-style-type: none"> Kiosks for rental Freezer for fishermen Fish-cleaning facility </td> <td> <ul style="list-style-type: none"> Waste removal vehicle Staff Office Computer to write reports LLG to have a business arm </td> </tr> </tbody> </table>	All users	Vendors	Management	<ul style="list-style-type: none"> Banking agent Utility (water, toilets, lighting) 	<ul style="list-style-type: none"> Kiosks for rental Freezer for fishermen Fish-cleaning facility 	<ul style="list-style-type: none"> Waste removal vehicle Staff Office Computer to write reports LLG to have a business arm 	To maintain and improve the market LLG needs staff with knowledge and skills (e.g. people management skills, food safety, book keeping and financial management skills) or training for staff in these areas.	Area of work management does best Transparent process of collecting, reporting and accounting for market revenue.
All users	Vendors	Management									
<ul style="list-style-type: none"> Banking agent Utility (water, toilets, lighting) 	<ul style="list-style-type: none"> Kiosks for rental Freezer for fishermen Fish-cleaning facility 	<ul style="list-style-type: none"> Waste removal vehicle Staff Office Computer to write reports LLG to have a business arm 									
Mount Hagen	Extensive political influence in running of the market: Every councillor wants his people to manage the market, because it involves money. Even when one management team does a good job, the next group in power will get rid of them and put their own people in. There are market rules but enforcement is not effective.	The biggest challenge in operating this market is interference by local land owners. Need to work closely with police to address the issue of crime and widespread drug use around the market	A second market is needed. There are plans to build another market for wholesale activities. Togoba Junction is a proposed site for a wholesale facility. Cool storage facilities need to be provided. Restore utility services (water and toilets) to the market and introduce a user pay system so that people can use these responsibly.	Stop the current practice of picking up workers off the street. Employ better educated staff with appropriate skills to manage the market. Need to tighten up system, close loopholes where money from takings is not adequately accounted for.	Previous management used to communicate better with farmers. Can't think of anything that current management is doing well. It's really challenging to manage the people who work in this market						

Analysis and discussion

A number of key findings of best practices and lessons have emerged from this study. Markets offer the opportunity for vendors to earn incomes and provide food to consumers to maintain livelihoods but they also provide business opportunity to SMEs, as well as providing a vital source of revenue for local and provincial authorities. Emerging from this study are also best practices, valuable lessons and common challenges in areas that need further improvement in the establishment and management of markets. The discussion is organised around these key themes.

Policies and regulations

Establishment of local or provincial policy and regulatory frameworks with governance structures is critical for ongoing planning and resource allocation to sustain markets in the long term. Policies and regulations can set the framework within which markets can operate, define the roles and functions of different stakeholders and provide guidelines for implementation. Policies and regulations combined with market bylaws can guide the work of market management. This was exemplified by the East New Britain Provincial Government, which formulated the Market Development Authority Act with a governing board. The Act sets all the rules and regulations for operation and penalties for noncompliance. Market management implements the Act and reports to the Board, which is comprised of all key stakeholders, including vendors and women's representation, and it is chaired by the Provincial Administrator.

East New Britain's case demonstrates Keen and Ride (2019) and Roever and Skinner's (2016) suggestion that introducing legal reforms, market policy and regulations has the potential to create business opportunities for SMEs, increase employment and government revenue, provide fresh food for consumers, and enable market vendors to generate incomes. The other three markets do not have established policies and regulations except for market bylaws. Alotau and Lae markets monitor and ensure that market bylaws are followed. However, in Mount Hagen, market rules are not enforced due to underlying issues of poor management.

Political influence

Managements that conduct business without any political influence are freer and better able to plan, implement and manage their activities effectively. In the absence of policy and regulatory frameworks with independent governance systems, some markets can easily be subjected to political influence and manipulation by vested interest groups.

The Mount Hagen market is a good lesson for how political influence has huge ramifications on a market with the potential to raise substantial revenue and create employment and business. Management of this market is deeply influenced by elected LLG leaders (Councillors). The general manager of Hagen Two, business arm of Hagen Rural LLG, expressed that every councillor wants to have his people looking after the market because there is money in it. This stems from mounting pressure exerted on councillors by voters of traditional landowner clans surrounding the Mt Hagen market who view entry to employment at the market as a quick way to earn an income. Market staff are not recruited through any formal recruitment process; without any formal training and skills, they are tribesmen of Ward Councillors who also happen to be strong supporters of the LLG President.

Since the failed 2013 LLG elections, the general manager of Hagen Two, which is the business arm of the Hagen Rural LLG, was tasked to oversee the operations of the market. He stated that it is hard to get the young men responsible for ticketing to cooperate insofar as acquittal of gate takings is concerned. Proper acquittal of revenue from gate fees is a major concern and this is common knowledge among the community and vendors, as mentioned by a regular producer seller who served as key informant on the data collection team.

Effective management

Objective recruitment processes enable the employment of skilled staff. Kokopo, Lae and Alotau markets advertise vacant positions and staff are recruited following formal recruitment processes. Skilled workers with relevant qualifications are employed in markets where provincial and local government authorities apply formal processes of employee recruitment. A core team of dedicated, skilled employees led by skilled managers are better

able to perform their functions effectively and contribute to the sustainability of the market. This was observed in the cases of Kokopo, Alotau and Lae markets.

The East New Britain Market Authority specifically stands out as being highly effective, and this is partly due to the oversight provided by an experienced manager. He is supported by a dedicated team of skilled staff, including an accountant, human resource manager, public health and nutrition specialists, as well as an operations supervisor, who were all employed through the formal provincial government recruitment process. Skilled and dedicated employees contribute massively to improving the productivity and the quality of market services. For instance, food hygiene and sanitation is strictly enforced in the Kokopo and Alotau markets.

In contrast, the Hagen market provides lessons of what is to be avoided in managing a market. Market workers were not recruited following any formal process and come from local land-owner clans with strong political links to elected LLG leaders. Most of these young men lack formal training and skills and add little value to improved services. Attempts by the caretaker manager to introduce changes and enforce rules to improve the system are met with resistance by staff. One of the biggest challenges has been getting cooperation from staff to set a transparent and effective way for collection and acquittal of gate fees. This leaves a lot of room for market revenue to disappear into private pockets.

Effective systems of revenue collection

Establishing transparent and efficient systems of collecting revenue through vendor fees and letting of market property or provision of other services have the potential to substantially increase market revenue. Preset daily fee rates provide clarity and ensure consistency in how much vendors are charged. For instance, in Lae market, a preset daily gate fee (K3.00) is collected from all vendors. Revenue has increased tremendously since the current management came into place and the process for generating and accounting for revenue has been improved.

Kokopo and Alotau markets are self-sustaining and this obliges them to operate at a higher level of efficiency to afford the cost of all operational expenses, including employee wages. Ticketing clerks are required to raise as much revenue as possible through vendor fees. In fact, in Kokopo, clerks are given daily target amounts to reach. The aim to maximise revenue is commendable for self-sustaining markets. However, the focus on revenue generation through application of preset fees leaves no room for flexibility and does not take into account the variation in vendors' daily earnings. Market authorities need to be cognisant of this and ensure that fees are reflective of the value of commodities a vendor may be selling and the daily income earned. This is an issue that the Huhu LLG mentioned being aware of, as vendors raised concerns regarding the blanket application of gate fee amounts by ticketing clerks regardless of the value of produce that is sold in any one day.

In Hagen market, there is inconsistency in the fees charged by different clerks at different gates depending on the type and quantity of produce. Lack of clarity and consistency in the application of gate fees is not only unfair to vendors, but the process of acquittal of collected funds is not transparent and as noted earlier, this leaves room for market revenue to disappear into private pockets. Further, inability or refusal to pay the charged amount of gate fees often leads to verbal harassment and intimidation of vendors by ticketing clerks. Many of the victims are from outer districts like Tambul, Baiyer or Dei, compared to townspeople who are in a better position to identify ticketing clerks and argue their way through.

Managing security and safety

Effectively addressing safety and security issues in markets is vital to create a safe environment for vendors, customers and the public. Establishment of clear market regulations and bylaws helps management to take decisive action on offenders as penalties are already prescribed and serious incidents are referred to police.

Management of Kokopo opted to outsource security to a private firm with a law and order office set up in the market, while the other markets directly employ security staff. Alotau and Kokopo markets present best practice examples of taking decisive action to maintain safety compared to Mt Hagen market where safety and security has deteriorated over the years (Chang et al., 2014; Uniquet, 2013). The situation appears to be beyond

the ability of management to address effectively as incidents of bag snatching, harassment of vendors, open consumption of marijuana and home-brewed alcohol are daily occurrences. Police presence and assistance is vital to help management bring a sense of safety and normalcy back into the market. Hagen's situation of safety in the market reflects similar concerns of poor and deteriorating safety in NCD markets (Kopel et al., 2017, Bonney et al., 2012).

Creation of separate venues for sale of store goods

Markets are set up for the sale of fresh produce, therefore processed or manufactured store goods are banned in all the markets under study. Homemade craft and *meri blaus* (home-sewn ladies' blouses) are permitted for sale in Mount Hagen, Lae and Kokopo markets. An innovative approach in Alotau has been the construction of two buildings for the sale of store goods, known as the 'informal markets'. One of the buildings is owned by the provincial government and the other is owned by the District Women's Association, and they collect the monthly rentals from stall operators. This approach takes vendors selling store goods off the streets and provides a secure venue for them to sell under one roof, protected from the elements. It prevents people selling on the streets and eliminates negative public perceptions of street vendors and confrontation with law enforcement agencies that are often witnessed in Port Moresby (Kopel, Hukula, & Iwong, 2017).

There are also other commodities that are not permitted to be sold in markets. For instance, live animals are not allowed in Kokopo, Lae and Alotau markets, mainly on the grounds of hygiene and public health, but also due to lack of space. In Mt Hagen, poultry is permitted for sale, but the area for selling poultry is not cordoned off from the rest of the vendors selling food items, and it is unhygienic as the wind blows the chicken droppings and feathers on the nearby vendors and their fruit and vegetables. The Uniquist study (2013) made note of this and recommended that poultry and tobacco sales areas be separated with barriers from the rest of the market, but nothing has changed.

Kokopo and Alotau markets allow cooked food and raw meat and fish to be sold with strict monitoring and supervision to ensure that health and hygiene is maintained. Mount Hagen market management does not permit the sale of cooked food except for winged beans, which has a thick outer skin and does not go off easily. Similarly, the sale of betelnut is banned in Mount Hagen market whereas it is permitted in the coastal markets.

Creating markets as places of business

Markets should be created as places of business where people can do more than just buy and sell fresh food. Kokopo market illustrates how an idyllic marketplace could be established and managed. Management provides kiosks for SMEs to rent and conduct business within the market premises, including a doctor's surgery, banking agent and ATM, cafeteria, horticulture supplier for seeds, fertilisers and pesticides, and kiosks for sale of essential items like phone cards. Toilets and showers are provided on a user pay basis. Billboards are hired by advertisers, and the market arena is free for community use for conducting educational or awareness activities, but use of the space for commercial purposes attracts a fee. This makes it convenient as a place of doing business for all market goers and benefits everyone while raising substantial revenue for the market authority. This finding is consistent with Dewey's (2011) contention that market revenue forms a large part of local government revenue.

There are massive potential benefits to replicate such an approach to create and manage markets across the region, as well as for hosting important community education and awareness activities in an area where a large part of the community regularly meet and interact. However, some markets like those in Lae and Mount Hagen are already crowded and do not have any room for community use or to attract SMEs to set up stalls and operate. These markets require additional room to expand or need to secure alternative land and relocate to be able to provide necessary services.

Conflict between different levels of government over distribution of market revenue

Conflict over distribution of market revenue is a potential concern between provincial and LLG authorities in areas where the provincial government provides services such as garbage collection, while the LLG owns the market and retains revenue. This has been demonstrated by the Hagen Rural and Huhu LLGs, which own the markets. As owners, the LLGs keep the generated revenue and they are not obliged to share financial reports or revenue with the provincial governments.

However, urban authorities and provincial governments strongly feel that part of the market revenue should be shared with them as service providers. For instance, in Mount Hagen market, there is a long-standing disagreement between the city authority and Hagen Rural LLG persistently arguing over whose responsibility it is to remove waste outside the market. It is important for the provincial and LLG authorities to work together to provide improved market services. This requires stakeholders to have roundtable discussions and reach an agreement on the roles and responsibilities of each layer of government and sharing or distribution of market revenue so that markets can work well and benefit all users.

Infrastructure, facilities and services

Investment in improving existing market infrastructure and facilities, and ongoing maintenance is critical. With good management, these services can be sustained over time. Many municipal markets lack basic infrastructure and amenities not only due to lack of resourcing and maintenance but also due to poor design and management of facilities (Kopel, Hukula, & Iwong, 2017; Kopel, Hukula, Kutan, & Iwong, 2017). For instance, redevelopment of the Mt Hagen market cost millions of kina, but in less than 10 years, sewers were blocked and toilets were dysfunctional, while water and electricity supplies were disconnected. As most vendors are women, involving women in close monitoring and supervision in the use of utility services can contribute to make these services sustainable. Also charging a nominal fee for use of toilets and water can ensure responsible use of services and contribute towards paying bills.

Shared needs for intervention to improve management and delivery of market services

Some of the key areas of need highlighted by managers reflect the challenges and barriers facing specific markets. A shared area of need recognised by managers across the four markets is the demand for an educated and skilled workforce and the need to sponsor ongoing training and upskilling of workers. This is regarded as essential to enable workers to improve their performance, which in turn will enhance delivery of market services. Currently, operations staff are all male, as supervisors, ticketing staff and security guards without any prior training or people management or conflict resolution skills. The market managers recognise the value of employing better educated staff with skills. For instance, in markets where cooked food is sold, it is vital that a trained food-handling person provides ongoing training for vendors and conducts regular inspections.

Kokopo

As noted earlier, while Kokopo is ahead of other markets by employing skilled staff and sponsoring operations staff to attend short courses, the manager considers that all staff need training on people management and conflict resolution skills. He hopes to continue with this initiative and have all employees undergo training. Other areas that were identified to need improvement relate to continuing with education and awareness for vendors on nutrition, food handling and hygiene in all the markets. Management needs to create extra storage space and establish a wholesale facility for crops like taro that grow best in East New Britain so that these commodities can be aggregated for sale to other parts of the country.

Mt Hagen

The biggest issue to be addressed immediately to improve the Mt Hagen market was identified as the need to employ a core team of qualified staff with appropriate skill sets in financial management, people management and resolving conflicts amicably without resorting to use of violence. There is an urgent need to reduce the number of people working in the market and set a clear division of roles and responsibilities by allocating staff to specific functions to improve efficiency and productivity. A dedicated market security team is needed to effectively address safety and security issues, including disturbing the peace, bag snatching, arguments and drug use around the market. The loophole in the system where market takings are not adequately accounted for has also been recognised as a critical issue that needs to be tightened up to improve the accounting of market takings. Kokopo and Alotau provide fitting examples of how this can be achieved.

Poor management, wastage and carelessness in the use of utility services has led to problems with blocked toilets and excessive water and electricity bills, so the caretaker manager has recognised the need for a complete change in management of these services. Once services are reconnected, management will need to provide awareness and education for vendors on responsible use of services and facilities. Close monitoring and supervision of the use of these services (toilets, water and electricity) at nominal fees can contribute to responsible use, and the payment can go towards settling the bills. As noted earlier, overcrowding has been a major concern and this has made it necessary to consider establishing a separate wholesale market facility with sufficient room to cater for cool storage, and the current market can then be used for retail sales.

Alotau

The Huhu LLG would like to develop a business arm that can manage the market and a transit centre or lodge to provide rental rooms for people coming into Alotau from the islands. Once construction of the new market is completed it will have adequate room to offer other services such as a fish cleaning area and a fish storage freezer and kiosks for rental by SMEs, as well as a truck for waste removal. Management takes care of operational activities and provides updates to the LLG, but when things go wrong the LLG staff are not there to provide the required supervision or support to sort out issues. For instance, staff reported that vendors have complained about market fees and that this is something the LLG needs to sort out.

Acquiring resources and providing training for staff were identified as important to improve management and market services. For instance, management needs to purchase computers to provide monthly reports and keep financial accounts. Before this happens, staff have to be computer literate or management will have to employ someone who already has these skills. If management decides to train and upskill existing staff, they will have to be trained on using computers, book-keeping and financial management skills. Also recognised as vital is the need for extra space to provide an office for management and a bank agent/ATM at the market.

Lae

One of the biggest challenges for the Lae market is overcrowding. There is insufficient space to expand it to accommodate more vendors, create storage and/or to increase parking spaces. Existing infrastructure needs to be renovated with provision for additional shelter, tables, seats and water. The market grounds need improvement in terms of paving or refilling the bare areas with gravel to keep it dry. Management also recognises the need to provide banking agents and ATMs in the market, not just for vendors, but also customers and visitors. Market clerks and coordinators need training and skill building to improve their performance in managing daily operations.

Conclusion and policy implications

This study of four provincial markets at Mount Hagen, Lae, Kokopo and Alotau aimed to analyse the critical success factors of open markets and the challenges that impede creation of an enabling environment to obtain a better understanding of why some markets work well while others do not. The findings are intended to provide lessons that can inform positive interventions that can improve local markets. Using a preset interview schedule, data were collected from interviews with market managers and provincial administrators or their representatives of the markets under study.

The study reveals important good practices and lessons on the establishment and management of open markets. Best practices are offered by Kokopo under East New Britain Market Development Authority and the Alotau market, which other markets can learn from. While the management of the Lae market is improving revenue collection systems and management. Mount Hagen demonstrates lessons of how not to manage a huge market with immense potential to benefit vendors, local SMEs and generate revenue, and so much needs to be done to realise this potential.

First, establishing the function of markets as part of provincial or LLG responsibilities is vital, as it will provide the policy and regulatory framework and facilitate sustainable resource allocation for markets. This was exemplified in the case of the East New Britain Market Development Act under which the Market Authority was set up.

Second, political influence has a huge negative impact on the operation and management of markets. Management and operation in markets where there is little to no influence from politically appointed leaders perform much better under transparent and reliable systems and processes in place such as staff recruitment and accountability for generated revenue.

Third, having a market manager and workforce comprised of professionally skilled and qualified staff contributes to improved performance. Skilled staff are better able to contribute to achieving their roles and responsibilities.

Fourth, better management infrastructure and market services including access to water, hygiene and sanitation services contribute to making these services and facilities sustainable and creates a genuinely enabling environment not just for vendors, but all market users. Other lessons relate to challenges that limit revenue generation for vendors and local authorities.

Addressing key challenges and constraints can create markets that provide better opportunities for producers and vendors to generate income, fresh locally grown food for consumers and revenue for local and provincial governments. This will contribute to ensure that inclusive growth becomes a reality for most ordinary people .

Potential strategies to improve markets

Below are potential strategies that can improve market services, operation and management.

1. *Markets must be made part of the responsibility of provincial or local authorities with appropriate policy and regulation.*

The function of planning for and resourcing markets as part of the municipal or local authority's recurrent planning and budgeting process would contribute to improvement and sustainability of markets.

2. *Establish independent market governance systems*

Market policies and regulations accompanied by a governing body with membership of key stakeholders, including government representation, law enforcement agencies, women, church, commerce and industry and vendor representatives will provide oversight on how the market should be operated. This may reduce political interference in market operations and management and improve performance and accountability.

3. *Collaborative action to address real or potential conflict over the distribution of market revenue*

In areas where markets are owned by rural LLGs in urban settings that are serviced by urban authorities such as Mount Hagen and Alotau, conflicts and disagreements emerge over the sharing of revenue and the responsibility for provision of services. Provincial and LLG authorities need to work collaboratively the details of revenue-sharing arrangements and also establish clear roles and responsibilities of respective stakeholders in implementing market functions. This can be done in a cohesive manner through established policies and regulations and governance arrangements that can be sustained over time.

4. *Robust processes for recruitment of skilled workers*

It is vital to employ qualified market managers to provide leadership and a core team of skilled workers. The case of the ENB Market Authority shows that a skilled workforce can contribute immensely to improve market services and provide a conducive business environment for local SMEs and market vendors to operate in while raising revenue for market authorities.

5. *People management skills are vital in carrying out market duties.*

Market managers of three out of the four markets suggested the need for staff, especially ticketing clerks and security personnel, to undergo training and acquire conflict resolution and people management skills. Facilitation of appropriate ongoing capacity building training for semi-skilled and unskilled workers is vital to enable them to conduct their duties effectively.

6. *Ensure that enabling infrastructure and utility services are provided*

Provision of well-maintained market infrastructure and functioning utility services is important for all market users. It provides a comfortable place to conduct business, whether it is buying, selling or just enjoying it as a place for meeting and socialising.

7. *Ensure safety in markets*

Safety is vital for market users, and managements need to ensure that markets are safe. In addition to outsourcing or directly employing security staff, the experience of Kokopo to have a law and order post at the market helps to address issues immediately, and serious cases are referred directly to police and this deters bad behaviour. Other managements, like the Mt Hagen market, could learn from this and set up a police post in the market to address law and order issues and maintain market safety.

8. *Collaboration with key stakeholders*

Management need to collaborate with key stakeholders that have a role to play in markets and reach an agreement on the roles and responsibilities of each party to iron out differences that may impact on the performance of the markets; this includes policing, public health, and awareness raising on food handling and hygiene.

9. *Provide markets as complete places of business*

Where possible, markets should provide a comprehensive range of related services that can contribute to them becoming places for conducting all sorts of business. This could include space for services such as the sale of agricultural products like Agmark (for seeds, fertilizer and pesticides), health services like mother and baby clinics, banking agents, and law and order offices to maintain peace and safety in markets. Again, Kokopo has demonstrated that this can be done and other markets can learn from it.

10. *Self-sustaining markets*

To be self-sustaining, markets require diverse sources of revenue to augment income from gate fees and the establishment of robust revenue collection and accountability mechanisms. The raised revenue can then be used to pay wages and ongoing bills as well as financing other expenses. However, increasing revenue should be done in a manner that does not disadvantage vendors by charging excessive fees. Management need to

diversify sources of revenue through other ways, such as letting of kiosks to SMEs, as suggested above.

11. Women should be represented on market boards and management

The ENB Market Authority has a women's representative on its Board, but none of the other markets have any women's representation in management or as ticketing clerks, or even working as security personnel. This is ironic as women comprise the majority of market users (vendors and customers). It is important to have women represented at all levels of the operation and management of markets, from ticketing to supervisory and management roles and membership on boards.

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Appendices

Appendix A: Key Questions for Provincial Administrations

COMPARATIVE STUDY OF AN ENABLING ENVIRONMENT FOR INFORMAL ECONOMIC ACTIVITY: Case study of four open markets in PNG

Key questions for Provincial Administrations

Province: _____

Market: _____

Date: _____

Interviewer: _____

Question
<p>1. Ownership of land on which market is located</p> <p>1 = Provincial Government 4 = Customary</p> <p>2 = LLG 5 = Other (Specify) _____</p> <p>3 = Private alienated land</p>
2. Who owns the market? _____
3. Who plans for markets? _____
4. When was this market built/ redeveloped? _____
5. Who built/renovated the market? _____
<p>6. How was building or renovation of the market funded? (Tick all applicable)</p> <p>1 = Provincial Government</p> <p>2 = LLG</p> <p>3 = Donor Aid</p> <p>4 = National Government</p> <p>5 = Other (Specify) _____</p>
7. How much did the building or renovation cost? _____
8. How is ongoing maintenance financed? _____
9. What are the sources of revenue from the market? _____

10. Does the market bring in sufficient revenue? Explain reasons _____ _____ _____
11. How is market revenue used? _____
12. What is the current system of collecting and accounting of fees? Is it effective? _____ _____
13. Does the Province have any regulation on markets, where people can sell? (If yes explain). _____ _____ _____
14. Does the administration have any plans to upgrade or re-develop the existing market? _____ _____ _____
15. Who manages the market? _____
16. How is market management selected? _____
17. How are employees recruited? _____
18. Who pays the market employees? _____
19. What additional facilities and services would you like to provide in this market? _____ _____ _____
20. What are the biggest challenges for the Provincial Administration to operate this market? _____ _____ _____
21. What skills and resources does the administration need to maintain and improve the market? _____ _____

Any comments

Thank you

Appendix B: Questions for Market Management

COMPARATIVE STUDY OF AN ENABLING ENVIRONMENT FOR INFORMAL ECONOMIC ACTIVITY: Case study of four open markets in PNG

Questions for market management

Province: _____

Market: _____

Date: _____

Interviewer: _____

Question				
1. How is the market manager and the management team selected?				

2. How many people are employed at this market?				
Function	Number of staff	Permanent	Temporary/Casual	Comments
General cleaning				
Monitor/clean toilets				
Security				
Fee collection				
Supervision				
Others (Explain their roles)				
3. Who is responsible for market workers' pay?				
1= LLG				
2= Provincial Government				
3= Market management				
4= Other (Specify) _____				
4. Who does market management report to? _____				

5. Do elected leaders (National or local) have an influence on market management and operations?				
1 = Yes				
2 = No (Go to 7)				

6. If yes, in what ways do elected leaders influence in how the market is managed and operated?

7. Who is responsible for setting market fees? _____

8. Is there a set fee sellers have to pay in this market?

1 = Yes (If yes how much? _____)

2 = No

9. If no set fees, how are market fees calculated and charged? (Tick applicable responses)

1 = By type of goods

2 = By volume of goods

3 = Amount of space occupied

4 = Other (Explain) _____

10. Does the market have extra space or property within its premises?

1 = Yes

2 = No (Go to 12)

11. If yes, what are these spaces used for? (Tick as applicable)

1 = Free for community/ public use _____

2 = Leased to businesses for rent

3 = Other (Specify) _____

12. Would management be willing to allow for space within the market to be used or developed for public purposes? (Eg. Space for health awareness campaigns to be staged)

13. What other services do vendors pay for in the market? How much and how these funds are used?

Service	Amount	How these funds are used?
Toilets		
Overnight storage		
Overnight security		
Carriers		
Other		

<p>14. Who is in charge of income collected from market fees? (Tick applicable answers)</p> <p>1 = Market management</p> <p>2 = LLG/Municipal authority</p> <p>3 = Provincial Government</p> <p>4 = Other (Specify)_____</p>
<p>15. Explain the process by which market funds get from fee collectors to the LLG or Municipal Authority?</p> <p>_____</p>
<p>16. Where does finance for ongoing maintenance come from?</p> <p>_____</p> <p>_____</p>
<p>17. Do incidences of violence, pocket picking and theft occur in the market?</p> <p>1= Yes</p> <p>2= No</p>
<p>18. If yes, how does management deal with issues of violence, pocket picking or theft in the market?</p> <p>1= Intervene and mediate</p> <p>2= Call police in</p> <p>3= Let them sort it out</p> <p>4= Other (Specify)_____</p>
<p>19. Are there specific goods that are not allowed to be sold in this market? (If yes explain).</p> <p>_____</p> <p>_____</p>
<p>20. Who makes decisions about what goods should and should not be sold here?</p> <p>_____</p>
<p>21. What area of work does management do best in?</p>
<p>22. Which area of responsibility does management need to improve on?</p> <p>_____</p>

23. What are the biggest challenges to manage this market well?

1. _____

2. _____

3. _____

4. _____

24. What skills and resources does management need to do its job better?

Any Comments.

Thank you

Appendix C: Number of respondents interviewed

Market	Number	Position
Kokopo	1	<ul style="list-style-type: none"> • Provincial Market Manager
Alotau	3	<ul style="list-style-type: none"> • Provincial Planner • Huhu LLG
Mount Hagen	2	<ul style="list-style-type: none"> • General Manager of Hagen Two/ care taker manager of Hagen Market • Provincial Administration
Lae	2	<ul style="list-style-type: none"> • Provincial Administration • Market Co-ordinator
Total	8	



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