

An Exploratory Study on the Usage of Technology among Retailers in Labuan, Malaysia

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Abstract This study attempted to explore and investigate the types of retail technologies used among retailers in Labuan, Malaysia. It also examined whether the same group of retailers were willing to invest their companies' time, money and employees' energy/effort to innovate their business processes/routine. The study was conducted in Labuan F. T. of Malaysia. Convenient sampling was used to gather data from the respondents. Based on the findings, the respondents were doing businesses related to five categories namely, "ICT related", "Supermarket and grocery related", "Fashion and accessories related", "Electrical and electronic home appliances" and "Printing services related" type of businesses. The researchers found that there were eleven systems of hardware and software application used by the respondents i.e. i) accounting system, ii) inventory billing system, iii) payroll and HRM system, iv) POS system including barcoding/scanner and digital receipt system, v) MS Office packages, vi) mobile applications vii) quick response coding (QR) viii) computer networking of internet and intranet for data transfer and communication between employees ix) CRM database x) ERP and xi) Asset registration with depreciation of fixed assets. There were 50 percent respondents using accounting system and also the POS system. This seemed the most preferred system among the respondents. The findings also showed that technologies based on hardware and soft wares were adopted by only a handful and it differ among the respondents between 50 percent to 8 per cent adoption rates. There is a need for them to make comparisons and learn from other retailers from the same area, be it the type of business as well as the geographical location so as to get the benefits of the technologies available in the market.

Keywords Retailer, System software, Hardware, Retail technology, Labuan

1. Introduction

Small and Medium Enterprises (SMEs) play a vital role in Malaysia's economic growth and contribute up to 32% of its Gross Domestic Product (GDP) in 2012 (National SME Development Council, 2013). In line with the SME annual report 2013/2014, SMEs are projected to contribute to 41% of GDP by year 2020. In the services sector 37 % consists of SMEs which was concentrated in wholesale, retail trade, accommodation and restaurants. The wholesale, retail trade and accommodation and restaurants subsectors have consistently remained as the prime mover in stimulating the SMEs GDP (Department of Statistics, Malaysia, 2014).

Small and medium sized enterprise/retailers exist in bigger quantities than wholesalers; the total quantity will keep on increasing. Berman & Evans (2010), Levy, Weitz & Grewal (2014) and Lusch, Dunne & Carver (2011) describe retailing evidently; thus, retailers are the businesses that deal with the final consumers and the purpose for purchasing is for

personal consumption, irrespective of whether they sell goods or services.

Labuan Island, which was declared as the 2nd Federal Territory of Malaysia in 1984 and later an International Offshore Financial Centre (IOFC) in 1990 is not seen as progressing at the same pace as its counterparts in other states in Malaysia. Even though the Federal Territories Ministry has identified the factors plaguing Labuan's slow economic development, it will take some time before advancement in critical areas can be realized (The Borneo Insider, 2013). The retailers comprise of mostly small and medium enterprises. A noteworthy fact for retailers is the findings from the World Bank Productivity and Investment Climate Surveys has revealed that one of the six factors which influence the performance of Malaysian SMEs is innovation and technology adoption (National SME Development Council (2013).

2. Retailing and Technology

Retailing has become a high-tech industry with retailing increasingly using communications and information systems technologies and analytical models to increase operating efficiencies and improve customer service. Some of the new

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technologies applications used in retailing are: i) Use of web sites to sell products and services to customers; ii) Providing multichannel interface so that customers can interact with retailers anytime and anywhere; iii) Radio Frequency Identification (RFID) technology to improve supply chain efficiency as in collaborative planning, forecasting and replenishment (CPFR) system for coordinating vendors and retailer activities, etc. (Levy, Weitz, & Grewal, 2014).

A number of technological innovations have allowed retailers the ability to create and offer new business models. Newer technologies such as electronic price tags and mobile applications have made it easier to implement market place offers (Grewal, Ailawadi, Gauri, Hall, Kopalle, & Robertson, 2011). Modern retailers, also have increasing opportunities to learn about consumers and their behaviours by tracking information about their search tactics, spending and even referral habits which can be captured through multiple channels including in-store loyalty card programs, facebook tracking, app tracing. Retailers in possession of advanced technologies also can better mine and model those data to understand their customers' behavior Grewal, Roggeveen, Compeau, & Levy, 2012).

The benefits that technology enabled tasks brings to a business organization is abundant as in the case of software product sourcing whereby firm seeks to build its capabilities by using "off-the-shelf" technology solutions from external vendors rather than to turn over its IST functions to another firm. One thing's for sure it is cost saving whether it is related to time, energy or financial matters. It all depends on how much an organization's top decision makers are willing to invest on the various and wide array of technologies, hardwares and softwares, that are available in the market for these corporate or industrial buyers of the retail related technology products (Tsai, Raghu, & Shao, 2013).

There is a need to understand and to investigate on the types of technology (hardware and software) used by retailers in a small island with the 96,000 population and the ever arriving inward bound tourists for every event in the Labuan calendar of Events, International Sea Sports, Borneo Arts Festival and Labuan Arts Festival being some of the events that had drawn tourists to this island (<http://www.statistics.gov.my/portal/> accessed 29.8.2014). The visitor arrival to the island in 2013 was estimated at 922,000 (BERNAMA, 2013).

The retailers are the final frontiers that do transactions and interact directly with these groups of customers. It is whether the retailers would want to innovate their processes and services in retailing to the end users compared to the other states in Malaysia. Therefore the idea of investigating the nature of retail technologies used in Labuan sampled from such retailers would provide a representative sample of technology used by retailers in Labuan.

This research aims to:

- i) understand and investigate the types of retail technologies being used among the retailers in Labuan
- ii) investigate whether the retailers would invest their

companies' money, time and effort in their respective businesses.

This is an exploratory research on Labuan retailers and how they fare in their level of technology usage among retailers in Labuan Island. To understand retailers and their use of retail technologies will answer the issue of how advanced the retailers are in using retail related technologies as well as applying the hardware and software where needed. This will be good information for the suppliers/vendors/manufacturers on their potential/existing corporate buyers/retailers i.e. their existing and potential distributors in Labuan. It will also be a source of information for the government to take action whatever the findings are because retailers and other businesses contribute a big chunk to the nation's GDP.

3. Method

3.1. Identification of Retailers in Labuan

In identifying a suitable sample of "retailers using technology", the research used convenient sampling method Sekaran, & Bougie (2013). The Labuan municipality area was chosen and retailers using 'some kind of retail technology' in their retail business were selected to be the samples. It did not matter whether they are large or small companies or how sophisticated they are in the use of technology as per se, as long as they dealt directly with the final customers. For the purpose of this research, all entrepreneurs or organizations, large or small, which conduct their business activities involved in selling goods and services to consumers for their personal, family or household use are considered as potential samples. These retailers deal with the final customers. They do retailing which is a set of business activities that add value to the products and services sold to consumers. The research work was conducted between October to November 2013.

3.2 Selection of Samples and Data Collection

The samples consisted of retailers using physical stores as their channel or one of their channels of distribution and retailing any kinds of tangible and intangible products. There were twelve retailers that were included in our samples. Their merchandise included these category of goods: i) Computer peripherals and services i.e. hardware software and office appliances, IT and telecommunication products and services, ii) grocery and supermarket items, iii) beauty services and products, iv) electronic appliances, v) printing and souvenirs and lastly but not the least vi) fashion, time pieces and accessories are included in these retailers' lists of merchandise items. The qualifying question to ensure whether they could be included in the research sample was that whether the retailers were observed like they were using any element of latest technology in retailing. All visits were carried out around the Labuan municipality. This was purposely done to reduce the financial and time constraints.

Indepth interviews were conducted and the interview instrument took the form of a series of questions designed to get as much information as possible which would enable a more detailed account of their businesses.

The questions asked were whether the retailers use any form of technology, emails, software to ease and simplify their tasks of time consuming and tedious operations, to speed up or save cost of operation/conducting the tasks. They were also asked on the retail business' background of the management activities and they dealt with merchandising what type of goods and services. All the questions asked were open-ended in order to explore fully what the participants could share on their retailing activities. The questionnaire was standardized to confine to the objectives of the study. After obtaining access to the companies, the researchers had no problem with the interview process, except for some minor matters.

4. Findings and Analyses

Twelve interviews were recorded and coded based on the type of technology they were utilizing in their administration and operational activities. A manual coding and data reduction method was used. In displaying the data, it was decided that the use of narrative text is adopted (Bloomberg & Volpe, 2008).

Through an examination of the general background and the analysis of retailers using retail technologies, it can be classified into 5 categories based on their array of merchandise and services rendered. They are i) "ICT related", ii) "Supermarket and grocery related", iii) "fashion and accessories related", iv) "electrical and electronic home appliances" and v) "printing services related".

Based on the interview data, there are 11 groups of systems by means of hard ware and software application used by the respondents. They are i) an accounting system, ii) inventory billing system, iii) payroll and Human Resource Management(HRM) system, iv) Point of Sale (POS) system including barcoding/scanner, digital receipt system and merchant machine, v) MS Office packages, vi) mobile applications vii) Quick Response coding viii)computer networking with full application of internet and intranet for data transfer and communication between employees ix) Customer Relationship Management(CRM) x) Enterprise Resource Planning (ERP) xi)Asset registration with depreciation of fixed assets.

The systems that were most preferred by the respondents are the Accounting and as well as the POS system; only 50% of the respondents were using both the two systems. The next most preferred system used by the respondents was to have a "Computer Networking, File Application, Internet and Intranet Communicating Amongst Employees and having an Electronic Invoice" function in their computer system (42%). The third most popular hardware and software system to ease the difficulty and reduce the tediousness of the repetitive tasks was the Inventory Billing System, Retail

Merchandising, MS Office packages, Payroll and HRM system (25%). The rest of the software systems which were not very favorable among the respondents were the mobile application (17%), CRM (17%), asset registration and depreciation of assets (17%) and ERP (8%).

4.1. Accounting System Software

The retailers use Accounting System Software to i) manage sales, inventory and calculation of stock of merchandize to avoid loss of items due to human error, intentionally or accidentally ii) manage the expenditure pertaining to financial and accounting records and preparation of financial statement, debts and other financial information (financial reports) to consequently allocate financial resources iii) establish a two-way communication between supplier and retailer whenever the retailer wants to order items; supplier may monitor from their bases. The availability and replenishment date may be notified after this supplier-retailer communication. Forecasting may also be done here because of this collaboration.

4.2. Point of Sale (POS)

The retailers use Point-of-Sale (POS) because they can accept payments for purchases by using cash, debit card or credit card. The POS also enables the staff to check the availability of stock items, check discounts for certain merchandise items or to check a particular product code. It enables the retailers to reduce pricing errors and speed up checkouts at the point of purchase.

4.3. Computer Networking System, Internet/Intranet Communication among Employees

This system and the ability to use softwares with file applications and communication between employees is meant to save energy to communicate minor or major matters and transferring files via the network system without having to do a face-to-face discussion. This is also a major choice among retailers to be among their retail technologies utilized.

4.4. Inventory and Billing System

The purpose of using this system is to keep track of their stocks. It is time and energy saving to check whether their stock has been taken out or replenished into the storage system.

4.5. Retail Merchandising Software

The retailers use merchandise software e.g. UBS to calculate their stock in the inventory system where stocks are recorded. They place a bar code for every merchandise item in their inventory. The bar code is scanned using a scanner every time the items are taken out from the inventory. Automatically, the system will calculate and detect how much stock is still available in the inventory. The software can extract a brief description of the inventory items including the model, name and reference number of the

product. The system is also able to provide the unit price, quantity of a product in stock and also the total cost or value in the inventory item automatically. This software is able to generate audit trail reports of their inventory.

4.6. MS Office Package

The retailers use MicroSoft Word for the purpose of preparing reports, memoranda, letterheads and formal letters and MS Excel an electronic spreadsheet for invoices. They are also used as files attached for sending emails as supporting documents of products and services to suppliers and customers. They also use it for image editing instead of using 'photoshop' software but they use Micro Soft Word image editing features which enable them to come up with a simple picture. This is done for the purpose of in-store promotion and with additions and labels of promotion prices with the items' images. MicroSoft Word is also used to produce the company's mailing labels. For presentation purpose MicroSoft PowerPoint is used for presenting business ideas.

4.7. Payroll and HRM System

Monthly salary payments are prepared using the payroll system. The accountants in charge do not have to go to the bank every time they need to credit the employees' respective bank accounts. The HRM software is used to help manage the employee personnel effectively and efficiently. The employees do not need to travel to the office to submit their claims and leaves. It is convenient for the staff to manage other activities and resources and appraisal done to complement the payroll system.

5. Discussion

A small percentage of retailers have started using social networking websites e.g. Facebook and mobile application e.g. Whatsapp, WeChat and Line to contact suppliers and customers or vice versa as well as communication between staff of a retailer company, for the purpose of getting information and problem solving. These mobile applications to contact customers are used because it is more preferable among their customers and some vendors. Mobile applications are used by the retailers to contact the employees within the same retailer company. They make the most of the free voice calls and message texting offered by the service provider. These possibilities also enhance the retailer-customer, retailer-supplier as well as employee-employee inter-relationships. Communication can be done generously without being controlled on the time spent on voice calls. Mobile apps are also used for promoting the retailers' merchandise.

Certain retailers use social networking e.g. Facebook to promote their company name, product and services. It is more convenient and easy for them to promote their products because they do not have to print the traditional promotional method of printed brochures for customers which also incur

unnecessary costs especially during this digital age when there is a better option, i.e. through electronic media.

Some promotion of goods and services in social networking are done on Facebook, a viral marketing where the pictures of products and its specifications are posted to an account holder's, i.e. the retailer's, friends list. Those friends will then post to their friends list. Customers or potential customers who are exposed to these forms of promotion who are friends of friends can order any item or enquire through the Facebook page.

For those retailers who still do not practice this, there is a need for the rest of them to create websites and social media accounts to promote their retail outlets. Nowadays the youths, especially the Generation Y & Z prefer and want to do most things with just the click of a button. With this method of promotion, they can be easily reached and informed with the latest product that the retailers want to sell in the market.

Generally the retailers still do not take advantage of promoting their merchandize and retail outlet through the social media especially when there is a new product offering or discount or sale when the customers would be encouraged or persuaded to visit their stores. They still depend on the conventional ways e.g. by distributing pamphlets and wait for others to spread the news through word of mouth instead of word of 'mouse'.

They should advance according to the retail technology changes because new changes may bring new opportunities for their retail outlets especially when they want to make their presence felt by customers and vendors.

In order to improve the managers of the retailing companies/retailers and the employees need to have a common discussion group, virtual or physical with the same like-minded groups of people who can share the latest but do not require heavy investments as long as they can build up their network within Labuan itself. With that existence they can make comparisons and learn from other retailers from the same area; either the same type of business or the same geographical location so as to get the benefits of the technologies available in the market. Training for retailers, managers as well as the employees, should be encouraged so that they are ready to move forward to using more advanced retail technologies and enhance their businesses. They can begin by using the most popular retail technologies among retailers in Labuan as customers are the end users and start comparing which retailers are up-to-date in dealing with customers. One example that we can see is the merchant machine and the other support system for retailing. The government or other stakeholders should encourage the retailing communities to improve their services.

6. Conclusions

The most preferred system used by retailers for business purpose according to their current usage are the a) Accounting System b) Point-of-Sale set and merchant machine for debit and credit cards c) Computer Networking

System d) inventory system e) retail merchandising f) MS Office package, Payroll and HRM system.

The retailers prefer investing into the accounting system software because they are able to produce the required financial statements. They also selected this system due to their ability to improve the management of sales account and the forecasting of future sales of merchandise goods/which can be translated into revenue and thus may reserve some allocations for future purchases of new inventories item. It assists the retailers share information with their vendors effortlessly to be able to collaboratively make an informed decision. With this, there is a probability of not making an error when more parties are involved with their specialization of tasks, experiences and effort to decide collaboratively. The systems software and hardware used help to ease the workload. Using them had been found to be less time consuming and more cost saving.

There are extents of retailing in Labuan that are being practised by a small percentage of the retailers but have not been fully utilized by their counterparts even though it has been popular among customers. They need to get their managers to introduce more of the modern and latest method of doing work and promotion to suit what the local and potential customers are using.

Due to financial and time constraints, suggestion for future research should be on the ICT systems (hardware and software) used among indigenous Sabah or Malaysian retailers in Malaysia and why they prefer to use the system.

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