# **CHAPTER 1**

# Introduction

#### 1.1. The Point of Sale system.

The Point of Sales System (POS) allows businesses to conduct transactions with their customer. Here, customers pay for their transaction, while business track, store, and take account of other factors such as inventory management, table management and employee management, among other things. There are many types of Point of Sales system, from manual register to automatic MPOS integrated in a tablet. The MPOS originated from the humble cash register invented by James Ritty in 1879, originally called "Ritty's Incorruptible Cashier". This machine did not have a cash drawer at its start, and was based on a ship's counting the revolution of the propeller. However, the technology did not catch on until later, after it was bought by John H Patterson, who turned the invention into a fortune (James Ritty - Ohio History Central, 2020). Soon, the cash register was developed with more of its modern features with the ability to store cash using a drawer and tracking transaction on a paper roll.

Over the course of the 20<sup>th</sup> century, new technology was done, leading to the further growth of the humble cash register. The addition of electronics, integration with new methods of payment such as magnetic strips from credit/debit cards and thermal printing, this was both a response to new developments and to improve the cash register technology. Developed by IBM for McDonald in the late 1980's the use of the cash register now called ECR or Electronic Cash Registers became ubiquitous and mandatory for most stores in the late 20<sup>th</sup> century.

In the early 90s, Gene Mosher's technology under ViewTouch, Martin Goodwin and Bob Henry's first POS system which ran on a windows platform (Getting Down To Business, 1988). This is what the modern POS system is most akin to, with many of the features that we recognize today developed here. Features such as; but not limited to, better inventory manager, customer relationship manager, and financial management, new marketing tools, back office integration, customizability of niche industries, and a better visual to aid a growing company.

After entering the new millennium, cloud technology started to slowly become an important part of data management. Consumers now reach for their phone in transactions for coupons, memberships and other deals. Similar to the times before it, POS's must adapt and innovate to meet the technology of its era. New innovations such as Clover's (POS System & Credit Card Readers | Clover, 2020), highly efficient system capable of not only the basic POS features, but delivering invoice, tracking employees time, providing real time information, even when internet is down, will soon be the norm.

#### 1.2. Recent Developments: Ubiquity and Problems

Recently, many small and micro enterprises in Jakarta, specifically in the food and beverages sector, adopts and chooses to use a POS system. Specifically, a tablet that runs the POS system. Normally, this would be the case as businesses will often buy the best they can afford, and a POS system will aid in running a business. However, often businesses who purchase equipment such as these are commonly micro or small businesses. In a cutthroat environment such as a small/micro café industry, an expensive POS may not be the best investment, for the specific need of the business. Businesses that have adopted a POS system, may be sharing information to smaller businesses that cannot afford and overvalue the benefits of the POS system.

The specific idea of "how effective a POS is" has been done in other country, such as Singapore, who have done the research for larger companies (Gupta, Seetharaman & Raj, 2013). However, Jakarta, with its fast growing and early death market, desperately needs all the information it can get regarding the specifics of applying POS systems locally. Businesses should have access to what a POS System can do specifically in terms of sales and the various factors that affect it, including costs in terms of training, and management ease of burden when managing inventory, staff or cash.

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# 1.3. Thesis Objective

The objective of this thesis is to aid smaller businesses make smart decision in adopting POS systems, to gauge the positive effect it has on businesses through various factors in terms of POS systems effecting costs whether from scalability or saving of resources, POS systems effecting manageability from the point of view of business, POS effecting ease of use for SMEs due to its adoptability, and POS effecting Reliability.

# 1.4. Research Problems

The research aims to answer the question asked in other countries but not in Indonesia or Jakarta:

- To what extent does a POS system effect costs in Cafes within the Jakarta Region?
- To what extent does a POS system effect manageability in Cafes within the Jakarta Region?
- 3. Are POS system "ease of use" enough to be adopted by cafes within the Jakarta Region?
- 4. Should Small or Micro Enterprises adopt tablet POS systems for their businesses?

# 1.5. Research Objective

The objectives for this research are as follows:

- 1. To find out to what extent does a POS system effect costs in a Cafes within the Greater Jakarta Region.
- 2. To find out to what extent does a POS system effect manageability in a Cafes within the Greater Jakarta Region.
- 3. To find out to if POS system are "ease of use" enough to be adopted by cafes within the Greater Jakarta Region.
- 4. To find out whether or not small or micro enterprises should sink costs for a POS system for their business.

# 1.6. Justification for Research

This research is purely for developmental purposes, by gauging and studying the effects of POS systems in Jakarta, a clearer image can be formed of both how consumers interact with the POS systems, and how the features of POS systems can be helpful to businesses, or not, to what extent. With that information, smaller businesses could be better informed about the necessity of using a POS system. Small and micro businesses, are inherently different than larger businesses, so implementing a highly elaborate POS System may not allow them to absorb the best effect of said infrastructure.