Abstract—The rapid development of internet technology at affordable costs raises new opportunities for micro, small and medium enterprises (SMEs) in various areas, especially in the use of financial technology services which directly and indirectly have helped SME performance. Various studies in the field of information technology adoption have been carried out, but not much research found specifically examines the level of adoption of the Financial Technology system for SME’s business development. Through this study researchers used the well known Technology Acceptance Model (TAM) framework which also considers technological risk factors for SME Fintech users. A hundred and twenty seven respondents who were merchants offering mobile payment method in several shopping centers were chosen randomly. The findings from this study recommends that mobile payment provider may focus on Perceived Usefulness and Perceived Ease of Use only, without worrying about Perceived Technology Risk.

Keywords—Fintech, business models, mobile payment services, cashless, technology acceptance model, perceived risk

I. INTRODUCTION

The development of internet technology since mid-1990 as a means of exchanging information has opened up many new opportunities in business operations innovation. The internet enables information exchange without place and time dependency. Recently, financial markets around the globe were profoundly affected by internet advancement. Based on the data from Accenture in 2016, Fintech investment growth in has been phenomenal. Another data from PwC also in 2016 concluded that 83% existing financial institutions believe that their sustainability were affected by the development of Fintech. Those mentioned above data explains that Fintech is now well beyond the phase of hype and has become important issue to be discussed. The internet advancement distinctively change the face of financial service industry and led to the development of electronic finance. One of the most electronic finance gaining popularity is electronic payment (mobile payment) which gives automation to both merchant and customer whilst eliminating the needs to use paper money. Mobile payment features many benefits, however the adoption rate of mobile payment by merchants still vary from one to another. This article will measure the factors affecting the adoption of mobile payment among the merchants in three big shopping mall in Surabaya, Indonesia.

A study on the use of a mobile phone for financial transactions by [1] to explore the dominant factors by developing a model based on Technology Acceptance Model (TAM). The model mentioned was verified among the early adopters of technology in urban India. Findings suggest that the initiatives to improve Facilitating Conditions should be the first priority, followed by improving the perception of Usefulness and Ease of Use of mobile money services.

An interesting article by [2] discusses the use of Elaboration Likelihood Model to test acceptance of Fintech payment-type by testing variables related to the TAM (Technology Acceptance Model). The study was done by analyzing the cause and effect relationship between attention to self-efficacy and information privacy by utilizing them as moderating variables. The results of the study indicate that the intention to use is significantly influenced by usability, ease of use, and credibility. Furthermore, self-efficacy appears to have a moderating effect on both independent and dependent variables. Additionally, attention to information privacy is found to be a factor that blocks the path to intention to use. The implication of this research is that in the promotion of payment-type Fintech services, convenience and usability are the most important and influential variables in terms of use, while stronger government deregulation and security are called for by user of Fintech services.

II. LITERATURE REVIEW

A. Financial Technology

The Financial technology (fintech) is acknowledged as critical innovation in the financial industry and it is sprouting at a rapid speed, driven in part by the sharing economy, favorable regulation, and the advance of internet technology. Currently Fintech promises to restructure the financial industry by improving the quality of financial services, reducing costs, creating a new market, and establishing a more diverse and stable financial reform. The technological advancements in IT infrastructure, big data analysis, and increasing power of mobile devices has opened new way for fintech startups to encompass traditional financial firms with unique, specific, and personalized services [2].

B. Technology Acceptance Model

The broadly used Technology Acceptance Model (TAM) is suitable for task-oriented information systems such as management information systems and the model focuses on finding determinants of the acceptance of such systems [3]–[5]. Therefore, the TAM is not tailored to the explanation of human-relationship development which occurs with SME ICT adoption therefore, the TAM model needs to be modified or extended to be an adequate theoretical model for ICT adoption. In recognition of this most of the recent studies based on a theoretical causal model will try to add social and psychological constructs into existing as proposed in recent studies by [6]. The TAM has been recognized as one of the most predominant and satisfactory models within the