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Constraint Review and Implementation of audits on technology-based Startup Companies in Indonesia

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ABSTRACT

The future of digital and internet technology-based companies is very prospective. But some obstacles also arise because not all startups have angel investors who are willing to inject large initial capital for initial operations. Accounting standards used to assess startup market capitalization are quite difficult to apply because what is assessed is not real assets but rather the potential market share of users of their technology products or applications, which tends to be volatile and uncertain. Another obstacle in the audit process is that most data processing activities take place using (computer) programs, which physically cannot be seen. This paper discusses the obstacles faced by startup companies and the implementation of their audits.

INTRODUCTION

Startup companies, according to Wikipedia, refer to companies that have not been operational for long. These companies are mostly newly established companies and are in the development and research phase to find the right market.

But on this day it's easier if the term startup is defined as a new company that is being developed and is much associated with everything that smells of technology, the web, the internet and everything related to that realm. The use of the term startup in matters relating to technology, websites, internet, and others occurs because the term startup itself began to be popular internationally during the dot-com bubble.

The dot-com bubble phenomenon was when during that period (1998-2000) many dot-com companies were established simultaneously. At that time the company was intensively opening its personal website. More and more people are familiar with the internet as a new field to start a business. And from that time on, the startup was born and developed.

The potential for Indonesian internet users is increasing from year to year, of course, is a wetland to establish a startup. Every year, even every month, many new startup startups (owners) appear. According to dailysocial.net, there are currently at least more than 1500 local startups in Indonesia. Startups in Indonesia are classified into three groups, namely:

1. Startup the creator of the game
2. Startup the educational application
3. Startup trades such as e-commerce and information

With the development of social media and smartphones, the market for mobile games and social games is getting bigger. And for those who smell information or news on various themes, the development is even more rapid.

Technological audit constraints on startups based on technology

At this time many creative young people who have high initiative and have an entrepreneurial

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spirit by taking advantage of opportunities offered by the current internet era. The future of digital and internet technology-based companies is very prospective. The capital market also provides opportunities for these companies to become large and contribute to economic growth. But some obstacles also arise because not all startups have angel investors who are willing to inject large initial capital for initial operations. Most startups still face obstacles related to net tangible assets and weak implementation of good corporate governance (GCG). The biggest asset of a startup is precisely in its human resources as well as in the idea of the program being developed. Meanwhile, at this time there is still no clarity in the Statement of Financial Accounting Standards (PSAK) in terms of evaluating the intangible assets of startups. Accounting standards used to assess startup market capitalization are quite difficult to apply because what is assessed is not real assets but rather the potential market share of users of their technology products or applications, which tends to be volatile and uncertain. Another obstacle in the audit process is that most data processing activities take place using (computer) programs, which physically cannot be seen. Likewise, the data stored in computer files, which do require expertise and certain means to trust it.

The presentation of this paper is expected to provide some input regarding the audit process of startup companies in Indonesia, notwithstanding the existing constraints and the implications of their application. So that the existing constraints do not become a major issue in conducting audits so that startup companies can further develop with investors who will invest in this company.

In his research, Simamora (2011) states that the main determinant of the success of new technology-based businesses is its human resources which include founding characteristics such as personality traits, experience, and education. Cooper et al (1994) and Lasch et al. (2007) determine human resources as one of the predictors of growth in new business performance, but in the research of Lasch et al. (2007), it seems that human resources do not affect the growth of information technology and computer service companies. Wicker and King (1989) found a positive relationship between the age of startups and company success. Experienced entrepreneurs can use their entrepreneurial knowledge to more quickly realize the failures of their companies so that they do not hesitate to close them than do inexperienced entrepreneurs (Dahlqvist et al. 2000).

guidelines, risk management approaches, actions, training, guarantees and technology used to protect the cyber environment and the organization and user assets (Ardyanti, 2014). Cybersecurity aims to help users to prevent fraud or detect any attempted fraud in information systems that have a meaning of reality (Deris, 2005). Park and Kim (2006) define security in online transactions as the ability of an online store to control and maintain the security of data transactions. Security and privacy play an important role in guaranteeing and protecting internet users (Maskun, Manuputty, Noor, & Sumardi, 2013), especially for online businesses and consumers because of the high movements in the world of online services (Park & Kim, 2006). Ensuring information privacy and customer data security is one of the most common consumer concerns when shopping online (Godwin, 2001).

Park and Kim (2006), said that security plays an important role in forming a trust to reduce consumer concerns about misuse of personal data and transaction data that can be easily damaged. When a security stage is accepted and in accordance with consumer expectations, consumers may be willing to disclose their personal information and will carry out transactions with a sense of security. The results of Alharbi et al. (2013) also show the importance of maintaining the privacy of customer information and ensuring data security to protect and enhance the company's reputation and customer relationships and to increase customer trust.

Cybersecurity is further understood as a mechanism that is carried out to protect and minimize interference with:

a. Confidentiality, usually associated with data provided to other parties for specific purposes. This service is intended to prevent messages from being read by unauthorized parties.
b. Integrity is a wholeness relating to the consistency of information contained in data that is on a computer network. Where modification or destruction of data results in ignorance of the data generated by the harmful code. To maintain data integrity, the system must have the ability to detect messages manipulation by unauthorized parties, such as the insertion, transfer, and replacement of other data into the actual message. So to support this aspect encryption methods are often used such as digital signatures.
c. Availability, related to the availability of information when needed. A server that is attacked to death, will result in users no longer

able to access the information contained therein.

MATERIALS AND METHODS

Steve Blank (2010), defines a business startup as an organization formed to look for repeatable and scalable business models. Berkowski (2014) in his book classifies digital business model companies that are very good for startups to develop into 5 categories, namely:

1. Game application
2. E-commerce/marketplace applications
3. Consumer audience/advertising applications
4. Software As A Service (SAAS)
5. Enterprise

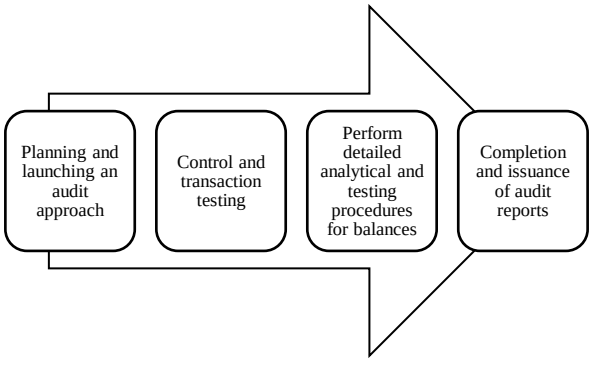
Taylor and Cosenza in Almakenzi et al. (2015) suggest that growth is a fundamental goal of every company and is needed to survive. Storey and Greene in Almakenzi et al. (2015) also mentioned that growing quickly is very important for the survival of some startups. This study considers financial growth and the number of users as the roots of startup growth.

The impact of broadband as an infrastructure for economic growth has attracted attention, especially in policymaking for more than 15 years (Picok & Wernick, 2007). Broadband or broadband is a transmission medium that can carry many signals and divide its capacity into multiple bandwidth channels. The International Telecommunication Union (ITU) Standardization Sector in Recommendation I.113 defines broadband as a transmission capacity faster than the level of integrated services digital network (ISDN) of 1.5 - 2.0 Mbps (ITU-T, 1997). In the Indonesian Broadband Plan document (RPI) (BAPPENAS, 2014), broadband is defined as internet access with guaranteed connectivity always connected, guaranteed information security and security, and has triple-play capability with a minimum speed of 2 Mbps for fixed access and 1 Mbps for mobile access. EU's "Digital Agenda for Europe" considers broadband as the main prerequisite for startups in telecommunications and ICT and so on as an incubator for the growth of other industries (Commission, n.d.). Audretsch et al. (2015) show that broadband is a key prerequisite especially for high-tech startups and consumer and trade-related services that provide access to information and certain customers and pave the way for new business opportunities such as e-commerce. Agarwal and Wu's research (2015) explains that physical infrastructure (including ICT infrastructure where this is an important infrastructure for internet access in e-commerce) has been identified as influencing e-commerce growth. As for the impact of broadband for startups, namely: (1) broadband enables entrepreneurs to access knowledge without having to be close to knowledge incubators and access a variety of customers outside the region, (2) the level of transmission that is broadband quality where this is the main prerequisite for providing the type of service that is truly new, in this case broadband is a platform for new and innovative types of entrepreneurs whose business models really depend on high broadband transmission rates (Audretsch et al., 2015). Attapatu (2010) believes that high-speed broadband internet access is widely known as a catalyst for social and economic development. Research conducted by Rohman and Bohlin (2012) shows that by doubling the speed of broadband, it will contribute to GDP growth of 0.3% compared to the growth rate for the base year. The way to measure ICT affordability is to consider the price of ICT services and the level of user income to reflect the financial capabilities of the demand side (Alderete, 2017).

measurable information about an economic entity that is carried out by a competent and independent person to be able to determine and report the suitability of the information with established criteria. In short, an audit is a comparison between conditions that occur with established criteria.

The audit stages according to Arens et al (2008) are as follows:

a. Planning and launching an audit approach
b. Control and transaction testing
c. Perform detailed analysis and testing procedures for balances
d. Completion and issuance of audit reports.



Picture 1
Stages of the audit process

Systematic implementation of audits becomes more complicated and difficult for auditing startups based on technology, given that most data processing activities take place using (program) computers, which can not be physically seen implementation. Likewise, the data stored in computer files, which do require expertise and certain means to trust it.

AlCPA and ClCA have developed assurance services for information technology and e-commerce with a service group called WebTmst and SysTnrst, which are carried out according to attestation standards (Arens, 2006). SA Public Accountant Professional Standards (SPAP) Section 335, Auditing in an Electronic Data Processing Environment About Expertise and Competencies, explains:

Paragraph 03:
When carrying out audits in an electronic data processing environment, the auditor must have an adequate understanding of hardware, software and computer processing systems to plan assignments and he must understand how the

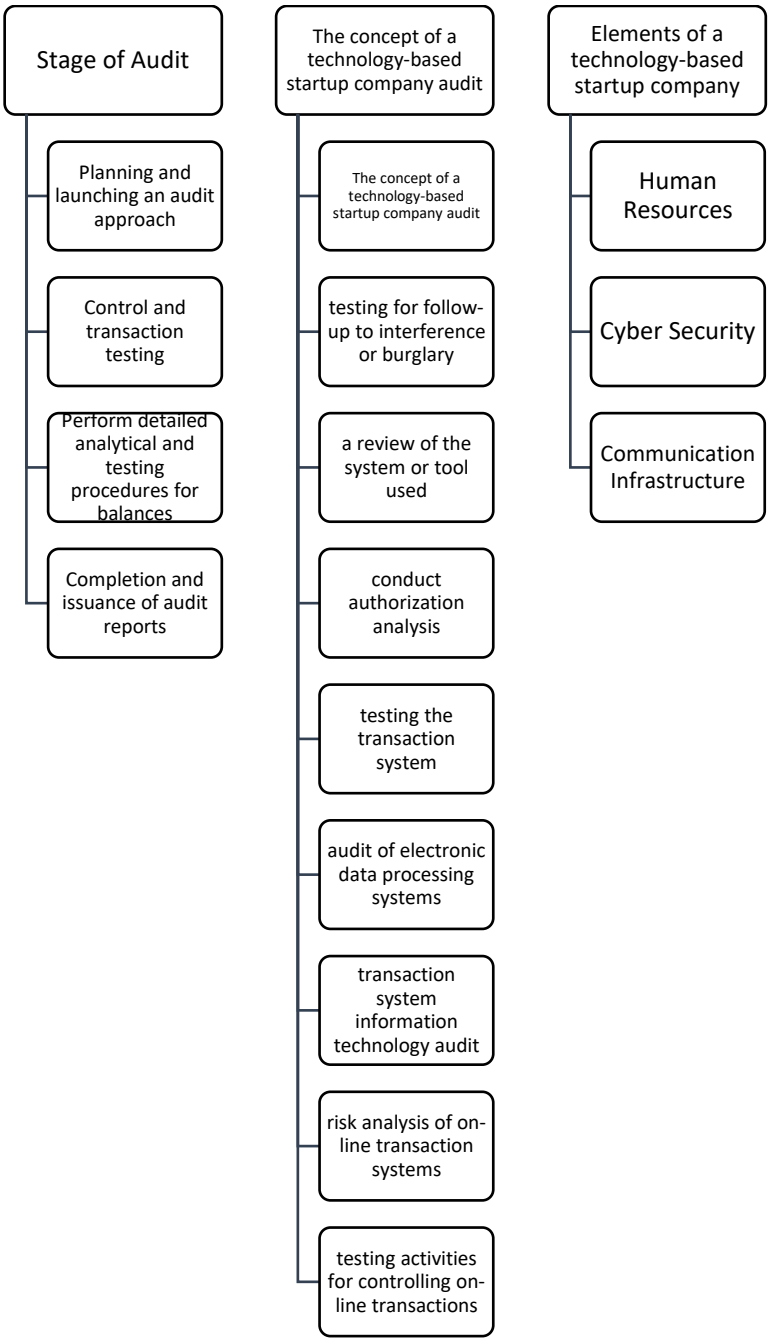


Figure 2
Technology-based startup audit process flow

impact of computer processing to plan assignments and he must understand how the impact of electronic data processing on procedures used by auditors in gaining understanding and conducting audit procedures, including the use of computer-assisted audit techniques.

Paragraph 04:
The auditor must also have sufficient electronic data processing knowledge to implement audit procedures, depending on the audit approach used (audit around a computer and through computer).

The audit plan in conducting the audit is closely related to the objectives to be achieved in carrying out the audit. The plan includes plans for personnel involved in the use of audit methods and procedures. To assess the level of conformity an auditor must obtain evidence, that is, all the information that can be obtained to determine the level of conformity in the auditing report, as well as other sources that are possible and justified. One type of evidence is the data files stored in computer data recording media, which require computers and special techniques to read them. Physically what is seen is the shape and type of storage media (diskette, hard disk, etc.) the same. Testing of such evidence, in addition to requiring computers, also data reading techniques, which depend on the design of the application, discuss programming and the appropriate operating system. An auditor, in this case, must have knowledge of the technology-based audit concept, be able to read application documentation and work with the application developer and programmer.

The design of an application is prepared based on the target of data processing, the configuration of available computer equipment, the availability of software, as well as the insights of the system compiler and its programming, in addition to the security system (security) that will be applied. One of the elements is different, so it can be certain that the design of the application and the data storage file will be different. The evidence is audit trails (audit trails) that must be traceable from the source of origin, processing, and storage, or is proof in reverse, starting from the audit of the final information accounts that have the support of the data source, which is between another is proven by the evidence of the data recorded in the computer data storage files.

In essence, the task of an auditor is to make a comparison between the actual conditions of the organization of data processing with the provisions that become the basis and then determine the suitability level.

RESULTS AND DISCUSSION

Audits on technology-based startup companies cover a variety of activities, namely: providing guarantees to interested parties regarding the level of security, testing for follow-up to intrusions or burglaries, reviewing the system or tool used, conducting analysis of authorized authorization, conducting testing of transaction system, electronic data processing system audit, transaction system information technology audit, risk analysis of on-line transaction systems, and testing activities on on-line transaction control (Isnaeni Achdiat, 2000)

In carrying out an audit, the auditor must have a plan in carrying out the audit process, all of which are related to verification and endorsement which aims to prove the validity of the transactions used to make reports, the correct application of the criteria established in business activities, and testing all findings by publishing a report in accordance with the type and purpose of the audit. Whatever type of audit will be carried out does not change the concepts, even if there is a change in the object being audited. But specifically, in the audit of information systems conducted by computer-based data processing, an auditor should understand and have knowledge about computers and the use of these tools in all steps of processing data. Information systems generated through computer-aided data processing mechanisms do have higher risks and difficulties compared to manual data processing.

An audit of the evidence of transactions stored on computer media obviously cannot be physically carried out by reading them but must use certain computer languages and be ordered through a program. Also in the computer program are stored process steps that have a very large possibility to place certain instructions that are not easy to trace. To do this clearly requires expertise in the field of computers and programming that is not simple. This audit activity can be carried out with the usual audit techniques with additional other techniques. This is allowed because the scope of the audit for technology-based startups is broader than that of financial statement audits.

The audit approach taken will be slightly different than conventional audits, as follows:

(a) Because transactions are processed in "real-time", the level of trust increases by placing "built-in" controls in the system.

(b) The series of working papers becomes non-existent, each transaction and transaction document (for example invoices and billing) is done electronically, transaction details are entered online and documentation input is no longer needed, outputs, such as invoices and billing are made electronically, and transactions performed by the system are complex.
(c) (c) Increased level of trust by placing controls in and around information systems to ensure the integrity and confidentiality of both data and day-to-day business transactions. If the control is not good or effective, the risk of security breaches increases;
(d) In increasing transaction volumes, encryption technology can be used to guard against unauthorized access to data confidentiality. An understanding of the effectiveness of encryption technology is needed to access the overall effectiveness of the control environment;
(e) For requests that are authorized, the process and issuance cannot be carried out at will, but require certain requests that have been authorized by competent parties. Outside these provisions, it can be assumed that the output cannot be accounted for, and
(f) Companies that do business through the internet generally use or require a low asset base. The net asset value of these companies, when measured using applicable accounting standards, are often very small when compared to their market capitalization. At this time, inherent goodwill is not counted and purchased goodwill is given a write-off treatment. This policy, like other accounting policies, may need to be reviewed for a more meaningful balance sheet.

CONCLUSIONS AND SUGGESTIONS

Different audit concepts and approaches need to be carried out for startup companies, most of whom prioritize the use of information technology. Conventional audit patterns certainly cannot be directly applied to this type of company. To do this clearly requires expertise in the field of computers and programming that is not simple. This audit activity can be carried out with the usual audit techniques with additional other techniques. This is allowed because the scope of the audit for technology-based startups is broader than that of financial statement audits. Auditors need other supporting fields of study to better understand the program, techniques and transaction flow and reporting.

We consider it necessary to standardize the rules related to the valuation of net tangible/intangible assets specifically for this type of company. Because the majority of the startup's largest asset companies are precisely in their human resources as well as in the idea of the program being developed. With the standardization of rules, so that the audit process can run more programmed and uniform for all startup companies, especially those based on technology.

When an audit can be carried out, startup companies will be able to capture potential investors to be able to further develop their companies and more startup companies are listed on the Indonesian stock exchange.

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