Accounting Software Used by Micro Enterprises in Palestine: Do they meet general quality features and satisfy users' needs?

Dr. Jalal M. Alattar

Associate Professor of Accounting

Ahmed Bin Mohammed Military College, Doha - Qatar

Abstract

Purpose: This research aims to contribute to the knowledge-building on micro enterprises (MEs) in the emerging economy of the Gaza Strip (GS) of Palestine. It provides empirical evidences on the extent the general quality features, already implemented in the available accounting software applications (ASAs), are being used, and the extent these ASA applications themselves are meeting the users' needs.

Methodology: In this research, some hypotheses were developed to explore (1) the extent the general quality features available in the ASAs are used by MEs and (2) the extent these ASA software meet the users' needs. Based on these hypotheses, a structured questionnaire was designed and used to collect the data for this study. Copies of this questionnaire were hand delivered to a large sample of MEs in the GS of Palestine. A descriptive statistical analysis was performed on the collected quantitative data using the SPSS software.

Findings: The findings of this research suggest that the general quality features implemented in the ASAs used by MEs in the GS of Palestine meet the users' needs at varying levels.

Research limitations: This study has three main limitations. First, it is limited to MEs having no more than 5 employees and one Owner/Manager. Second, the study is limited to MEs operating within the emerging economy of the GS of Palestine. MEs based in the West Bank region of Palestine could not be included, because crossing the borders between the West Bank and the GS is currently not allowed. For the past 15 years, the Israeli military has been imposing a strict blockade on the GS. However, sending the questionnaires to the MEs in the West Bank by email and having them return them by email could be possible if the researcher was able to go there and directly contact the MEs

to construct the sample. Third, although this study investigated the extent the ASAs used by the Palestinian MEs meet their users' needs, it did not explore and specify the type of needs these software applications should meet.

Practical implications: The study provides a better understanding of ASAs usage by the MEs. The results of the study highlight that the public policies aimed at fostering MEs should facilitate access to technology, and these policies should monitor the work of ASAs in MEs. The study also contributes to the government's effort for developing a strategy to strengthen ASAs adoption by strengthening the quality of the MEs. Consistent with previous studies, the findings also highlight the importance of training the Owner/ Managers (O/Ms) of the MEs on information technology issues related to their business.

Originality/value: This is the first study that investigates the ASAs used by MEs in the emerging economy of Palestine. It explored the extent the general quality features of ASA are being realized and the extent these features meet the user's needs. It is also a unique study because it is done for MEs in a territory under economic blockade in a developing economy that has not yet gained its independence.

Keywords: Accounting, Micro Enterprises, Emerging economies, Accounting Software, Gaza Strip.

البرامج المحاسبية التي تستخدمها المنشآت الصغيرة جداً في فلسطين: هل تتوفر فيها السمات العامة للجودة؟ وهل تلبي احتياجات المستخدمين؟

الملخص

الغرض: تهدف هذه الدراسة إلى الإسهام في تعزيز المعرفة حول المنشآت الصغيرة جداً في الاقتصاد الناشئ لقطاع غزة في فلسطين. توفر الدراسة أدلة واقعية حول مدى توفر السمات العامة للجودة في التطبيقات البرمجية المحاسبية المستخدمة من قبل المنشآت الصغيرة جداً، ومدى تلبيتها لاحتياجات المستخدمين.

النتائج: تشير نتائج الدراسة إلى أن السمات العامة للجودة تتوفر بمستوى مقبول في التطبيقات البرمجية المحاسبية المستخدمة من قبل المنشآت الصغيرة جداً في قطاع غزة بفلسطين، وأن هذه التطبيقات تلبي احتياجات المستخدمين بدرجات متفاوتة.

قيود البحث: لهذه الدراسة ثلاث قيود رئيسية. أولاً، تقتصر على المنشآت الصغيرة جداً التي لا يتجاوز عدد موظفيها ٥ أفراد، حيث يكون للمنشأة مالك واحد يديرها. ثانياً، تقتصر الدراسة على المنشآت الصغيرة جداً في قطاع غزة بفلسطين باعتباره اقتصاداً ناشئاً، ولم تشمل المنشآت الصغيرة جداً في الضفة الغربية بسبب عدم السماح بعبور الحدود بين الضفة وقطاع غزة بسبب الحصار الإسرائيلي الصارم المفروض على قطاع غزة منذ خمسة عشر عاماً. ومع ذلك، لو كان الباحث قادراً على الوصول إلى الضفة الغربية، لتمكن من التواصل مباشرة مع المنشآت الصغيرة هناك لتكوين العينة، ثم إرسال الاستبيانات إلى تلك المنشآت عبر البريد الإلكتروني، واستلام الردود بالطريقة نفسها. ثالثًا، رغم أن الدراسة استكشفت مدى توفر السمات العامة للجودة في التطبيقات البرمجية المحاسبية المستخدمة من قبل المنشآت الصغيرة جداً في فلسطين ومدى تلبيتها لاحتياجات المستخدمين، إلا أنها لم تستكشف أو تحدد نوع الاحتياجات التي يجب أن تلبيها هذه التطبيقات.

الاعتبارات العملية: توفر هذه الدراسة فرصة لفهم أفضل للتطبيقات البرمجية المحاسبية المستخدمة من قبل المنشآت الصغيرة جداً. كما تسلط نتائج الدراسة الضوء على ضرورة أن تركز السياسات العامة، التي تهدف إلى تعزيز هذه المنشآت، على تسهيل وصولها إلى التكنولوجيا، وأن تقوم بمتابعة أداء التطبيقات البرمجية المحاسبية المستخدمة فيها. إضافة إلى ذلك، تساهم الدراسة في دعم جهود الحكومة لتطوير استراتيجية تشجع على تعزيز استخدام هذه التطبيقات من خلال تحسين جودة المنشآت الصغيرة جداً. وبما يتماشى مع الدراسات السابقة، تؤكد النتائج على أهمية تدريب مالكي المنشآت الصغيرة جدًا الذين يقومون بإدارتها في مجالات تكنولوجيا المعلومات ذات الصلة بأعمالهم.

الأصالة/القيمة: تعد هذه الدراسة الأولى من نوعها التي تبحث في التطبيقات البرمجية المحاسبية المستخدمة من قبل المنشآت الصغيرة جداً في فلسطين، التي يعد اقتصادها اقتصاداً ناشئاً. كما استكشفت الدراسة مدى توفر السمات العامة للجودة في هذه التطبيقات ومدى تلبيتها لاحتياجات المستخدمين. وتتميز هذه الدراسة بأنها فريدة، حيث أجريت على منشآت صغيرة جداً تعمل في منطقة تخضع لحصار اقتصادي وسياسي وعسكري إسرائيلي صارم، وهي جزء من اقتصاد نامٍ لم يحصل بعد على استقلاله.

الكلمات المفتاحية: المحاسبة، المنشآت الصغيرة جداً، الاقتصادات الناشئة، التطبيقات البرمجية المحاسبية، قطاع غزة.

1. Introduction

Expanding the business activities in any ME necessitates the need to implement an ASA and setting up a database for the business. This accounting system is necessary to facilitate many essential business tasks, that includes tracking expenses and revenues, on-time filing of Value Added Tax (VAT) returns, using Employee Pay-As-You-Earn system, administering Employee Pension Insurance, and etc.

ASAs are usually used to record accounting activities (i.e., record and store accounting data) and generate reports per the requirements of the user. Typically, these ASAs can be classified into three categories: ready-to-use, customized, and tailored systems. Each of these systems offers a set of distinctive features. However, we will focus on the ready-to-use software, since it is within the scope of this research. The choice of which ASA to use depends on the accounting needs of the organization.

Selecting the right ready-to-use ASA is very important regardless of the business type being it a micro, small, medium, or large enterprise. However, the set of features and accounting functionality included in any ready-to-use ASA package is solely defined by the ASA vendor, and the type and sophistication of these features may vary from one vendor to another. The ASA may include features ranging from basic expense tracking and invoicing to more advanced features, like inventory and fixed asset management and project accounting. Some venders just offer basic recording of what's coming in and what's going out, while other vendors offer more advanced features that automat tasks that would otherwise have to be performed manually. Sophisticated ASAs offer automated tasks such as daily data transfers through a bank feed, reconciliation, and recurring invoicing

Using an appropriate ASA has several merits and advantages to an ME. (1) it makes the recording of the financial data and information easier, quicker and more accurate. (2) It makes the recording process more efficient with less overhead (Ahmad, 2005). (3) It improves and enhances the performance of most accounting functions because it generates high quality financial and managerial accounting information (Collins, 1999; Fisher et al, 2001; Abu-Musa et al, 2004). (4) it enables accurate, timely, and reliable financial reporting (Aduamoah, et. al, 2017). (5) it helps alleviating the stress accountants go through during manual recording of data and when they need to process and present financial reports to both O/Ms and government agencies (Ahmad, 2005). Despite these advantages, not all ASAs are created equally, and an optimal performance is not

guaranteed for any one of them. They are usually developed by designers, programmers and vendors with varying skills and competencies. Therefore, choosing, adopting, and implementing an ASA for an ME must be carefully done. The ASA must be chosen to best serve the needs of the particular ME that will use it; it must solve the ME's current problems and meet its future requirements. It should also be able to handle the ME's financial and managerial information as well as monetary and non-monetary statements.

Using an improper or inadequate ASA will be an absolute catastrophe for an ME. It may result in a huge loss of money, enterprise closure, and even insolvency (Aduamoah, et al., 2017). Moreover, the O/Ms of the ME may keep spending much time and funds on buying and implement an updated version of the ASA (Pulakanam and Suraweera, 2010). Investing in an incorrect ASA will definitely waste ME resources and causes dissatisfaction. Owners, managers, accountants, and employees have often get disappointed when the adopted ASA is difficult to use or when its general quality features does not meet the users' needs and desires (Heikkila et al, 2013). It is common for O/Ms to complain that they do not understand how the ASA they us works, because a little or no training was provided to them by the ASA vendor. Some ASAs come with no training materials, and some ASAs are accompanied with manuals that contains confusing tutorials (Michael et al, 2016). Some ASA vendors do offer implementation and training on the purchased ASAs, but their trainers are often IT vested without accounting skills. They don't train the user on the core aspect of using the ASA to pass the double-entry journal recording and ledger posting in order to generate trial balance and financial statements. Also many vendors do not understand the client MEs business processes, but they do recommend to them costly ASAs that often do not meet the users' needs and desires.

Palestine is the geographic region from the Mediterranean Sea in the east to the Jordan River in the west. It is bordering Lebanon, Syria, Jordan, Egypt, and the Mediterranean Sea. In 1948, Israel captured all the region except the West Bank and the Gaza Strip. Following the 1948 Palestinian expulsion and flight, also known as al-Nakba, the 700,000 Palestinians who fled or were driven from their homes were not allowed to return by Israel. Both of these territories were captured by Israel in 1967. In these areas combined, around 7 million Palestinians are living under the control of Israel. The conflict over these lands has left these Palestinians facing humanitarian crises, like lack of water, food, electricity, and little access to proper medical care. Under the Oslo Accords in 1995, the Palestinian National Authority was created to provide a Palestinian interim self-government in the West Bank and the interior of the Gaza Strip.

After the Israeli disengagement from Gaza in 2005 and clashes between the two main Palestinian parties following the Hamas electoral victory, two separate executive governments took control in the Palestinian territories of the West Bank and the Gaza Strip. Historical Palestine has a geographical area of 10,420 square miles (26,990 square kilometers). The West Bank, a landlocked territory, covers a total area of 2,262 square miles (5,860 square kilometers). The Gaza Strip, on the other hand, shares a 32-mile (51 kilometers) border with Israel and a seven-mile (11 kilometers) border with Egypt. It has a total area of 139 square miles (360 square kilometers).

A recent report by the World Bank suggests that the Palestinian economy is expected to experience a slowdown in 2023. Although the economy had shown a 4% growth rate in 2022, primarily fueled by the recovery of private consumption following the easing of COVID-19 mobility restrictions, the escalation of conflicts in the Palestinian territories and the potential impact of the Russian invasion of Ukraine remain significant risks that could negatively affect the economy (World Bank, 2023).

Despite some signs of recovery in 2022, the growth of the economy still depends heavily on the situation in the Palestinian territories. The ongoing restrictions on mobility, access, and trade also continue to affect the economy. To improve the standard of living, make fiscal accounts more sustainable, and reduce unemployment, significantly higher growth rates are necessary. However, there are also external risks, such as food and energy prices, that could harm the economy. Therefore, the overall economic outlook remains bleak (Emblad, 2023).

2. Objective of the Study

Our study aims not only to explore the users' views on the availability of the general quality features in the ASAs adopted by the MEs, but it also aims to explore the users' views on whether these systems meet the users' needs and desires. This study investigates ASAs in terms of the following twelve general quality features: Speed, Accuracy, Efficiency and Effectiveness, Flexibility, Reliability, Convenience, Comprehensiveness, Scalability, Proper Maintenance, Effective Cost, Built-in Security, and Ease of Use.

3. Importance of the Study

Although there is some research on the quality of the ASAs used by small and medium size enterprises (SMEs), MEs have been consistently left out of the researchers' investigation samples (Davila and Foster, 2005; Jankala and Silvola, 2012; Andersen and Samuelsson, 2016; Da Silva et al., 2016; Samuelsson et al., 2016). It is commonly assumed that the

results obtained for SMEs can be extended to MEs (Gherhes et al., 2016; Mitchell and Reid, 2000; Armitage et al., 2016). Despite the importance of the economic role of SMEs in developing countries and the role of ASAs in these enterprises, it can be argued that there is a lack of research accessing the quality of the ASAs used by MEs (Alattar et al., 2009; Liberman et al., 2010; Berrone et al., 2014; Shield and Shelleman, 2016; Ruiz and Collazzo, 2021).

This study is unique as it contributes specifically to the knowledge-building on MEs in developing countries. Per the researcher's knowledge, this study is one of the very few studies that focused exclusively on the quality of ASAs adopted by MEs in Palestine. Knowing the extent to which these applications realize the general quality features is very important. It is arguably relevant for regulators and policymakers, who design policies and programs aimed at strengthening the capabilities of these ASA systems (Greenbank, 2000) and who introduce legal requirements regarding the use of ASAs for generating information and financial reports.

The remainder of the paper is organized into five different sections. Section (2) presents a literature review and our research hypotheses; Section (3) introduces our research methodology, the data collection method, and our data analysis; Section (4) discusses our findings relative to the previous research; finally, section (5) includes our conclusions, the limitations of this study, and some directions for further research.

4. Literature Review

Several previous studies focused on the factors that influence the usage of ASA in various economic sectors and countries; however, very few studies focused on the assessment or evaluation of ASAs in MEs. Researchers proposed different sets of criteria and features to evaluate ASAs in SMEs as shown in Table (1).

Table 1

The Criteria identified by researchers

Previous Studies	Quality Criteria identified
Carpenter, et al. (2005)	technical, functional, documentation, and vendor information aspects of the ASA.
Abu-Musa (2005)	enterprise's current and future needs, enterprise size and type, features of the accounting software, IT environment and infrastructure, and vendor reliability
Muhrtala and Ogundeji (2014) Yürekli and Haşiloğlu (2017)	operational, commercial, technical, security, and strategic determinants
Jadhav and Sonar (2011)	functional, technical, quality, vendor, output, cost/benefit, and opinion
Ramazani, et al. (2014)	general features, compatibility, flexibility, control, reporting capability, and training
Tram and Tuan (2019)	users' requirements, features of ASA, ASA providers, cost of using AS, support conditions, and social influence
Paul and Sadath (2019)	user-friendliness, navigation & control, reporting function, flexibility, security, customization, and vendor support
Grabchuk and Lyakhovich (2017)	system functionality and price
Grinko (2009)	functional completeness, features of software system construction, principles of adaptation to the peculiarities of accounting work of specific enterprises, the possibility of using on various software-adapted platforms (office software of own development or third-party manufacturers), and the size of the company's accounting.
Dykiy and Dovgal (2008) Kolumbet (2014)	the authority of the developer, cost-benefit ratio (efficiency), the degree of versatility, functionality, clarity of the software, user-friendly interface, reliability, software compatibility, technical parameters, level of service, variability, degree of information protection, and data control
Thuan and Huong (2019)	ease of use, reliability, flexibility, and other criteria

As indicated in Table 1 above, the analysis of prior literature reveals that each of the published research ends with a list of criteria for evaluating ASAs used by SMEs without providing a practical evaluation result to confirm the reliability of using such criteria. It also reveals that there is a lack of a general, standardized, or unified set of criteria (call it convergence criteria) for ASAs evaluation. In our opinion, such a criterion should be a weighted sum of all the important criteria previously proposed. Each weight should indicate the importance of the corresponding criterion, and its value can be modified according to the needs of the person (i.e. an accountant or O/M) concerned with the results.

This study is distinguished from other similar studies in three ways. First, it focuses on micro enterprises with not more than 5 employees and one manager. Second, the study was conducted in Palestine, which is a developing economy that has not yet gained its independence from the Israeli Occupation. Third, it was conducted in the unique territory of the GS[1] of Palestine. The GS is one of the most populous areas in the world, and it has been under a comprehensive and suffocating Israeli blockade for the past 15 years. Fourth, the SAS in the MEs in Palestine generally and in the GSs specifically has not been researched before up to the researcher's knowledge.

4.1. Definition and Importance of MEs

There is no uniform criterion across countries that would specify what is an ME (Ayyagari et al. 2007; OECD, 2010; Lavia and Hiebl, 2015), and different countries may have different definitions for MEs. Altough the most developing world consider an enterprise that have less than ten employees an ME (Donner and Escobari, 2010), the Palestinian Central Bureau of statistics defines ME as an enterprises with not more than 5 employees[2] (The Palestinian Central Bureau of Statistics, 2021). The Palestinian definition is adopted for this research, since the focus of this research is the GS of Palestine.

MEs are especially important for emerging economies at both the local and national levels (Wiklund and Shepherd, 2005; Alattar et al., 2009; Liberman et al., 2010; Berrone et al., 2014; Shields and Shelleman, 2016; Subagyo et al., 2020; Sohilauw et al., 2020). As a group, MEs have undeniable relevance in the economy, as measured by the sheer number and relative weight (more than 90%) of economic units (Liberman et al., 2010; Berrone et al., 2014; Senftlechner and Hiebl, 2015; Shields and Shelleman, 2016). They represent a large fraction of the economic units (Berrone et al., 2014; Liberman et al., 2010) and their

---

1 The GS of Palestine is a 360 square kilometers (141 sq. miles) strip of land (Daibes, et al., 1996) located on the Mediterranean Sea and the Egyptian Israeli borders in the Southwest of Palestine. The GS is a home to 2.1 million people living in five governorates: North Gaza, Gaza City, Middle Gaza and South Gaza, of them, roughly half are under the age of 18 years (the United Nations, 2023). Many Palestinian refugees fled to this area during the 1948 Arab-Israeli war. Since 1967 occupied the GS. The GS had been granted a limited administrative autonomy in 1993 from Israel, after 46 years of occupation, as a result of the Oslo peace agreement with the Palestinian Liberation Organization (PLO). Since then the GS has been controlled by a new Palestinian Entity namely the Palestinian National Authority (PNA). In June 2007, following the military takeover of GS by Hamas, the Israeli authorities significantly intensified existing movement restrictions, virtually isolating the GS from the rest of the occupied Palestinian territory (oPt), and the world. This land, sea and air blockade has significantly exacerbated previous restrictions, limiting the number and specified categories of people and goods allowed in and out through the Israeli-controlled crossings. More recently, a significant disengagement from Israel which has severed the main lifelines of the Gazan economy and subsequently any opportunities for the Gazan population to seek employment outside of Gaza. The GS does not have the conditions – open borders, free movements of goods and labor – for a stable economy.

2 The Palestinian National Authority (PNA) has adopted the definition of MEs in Palestine as set forth by the Ministry of National Economy (MNE) pursuant to the Cabinet decision dated 4/10/2011 number (01/105/13/) Article 2, year 2011, as those enterprises with not more than 5 employees.

importance to household livelihoods is undeniable (Donner and Escobari, 2010). In some countries, the MEs employ about 25% of the working-age adults (Mead and Leidholm, 1998). They often account for most of self-employments or serve as complementary sources of income (Dyt and Halabi, 2007). They are important players in reducing poverty levels (Santos and Guzman, 2017).

MEs may be considered the engines of growth. They are usually the focus of many programs at the largest international development agencies (Snodgrass, 2005). Therefore, policies set to foster them should be carefully designed (Greenbank, 2000; Gherhes et al., 2016).

Previous research on this topic either completely ignored MEs or bundled them together with SMEs in spite that fact that MEs are very different organizations than SMEs (Dyt and Halabi, 2007; Alattar et al., 2009; Sian and Roberts, 2009; Liberman et al., 2010; Berrone et al., 2014; Shields and Shelleman, 2016; Ruiz and Collazzo, 2021). MEs are not just smaller versions of larger firms, but they are indeed meaningfully unalike (Marriott and Marriott, 2000; Danielson and Scott, 2006; Dyt and Halabi, 2007). They can't be considered as a special case within the SME group. They have very different organizational structures compared to those of the larger enterprises (Liberman et al., 2010; Grande et al., 2011; Lavia and Hiebl, 2015; Shields and Shelleman, 2016). They are the most resource-scarce type of enterprise. They face very different challenges and have very particular restrictions than most of small enterprises (Berrone et al., 2014). Therefore, research directed to understand the characteristics and processes that are unique to MEs in developing economies relative to those characteristics and processes found in larger firms in developed countries (Dyt and Halabi, 2007; Lavia and Hiebl, 2015; Senftlechner and Hiebl, 2015) is considered very relevant and timely.

4.2. Definition and Importance of ASAs

An ASA is a software application that automates and integrates all the business operations, (e.g., sales, finance, purchase, inventory, and manufacturing) to make them faster and more accurate. It is usually an integral part of the computerized accounting system used by the enterprise. On a global basis, the basic features of all ASA are the same. However, the legal reporting requirements in a given country and the business needs to affect the contents of the ASA. The ASA reduces manual entry of data, eliminates redundant operations, and employs built-in security to reduce the risk of accounting errors. It also, helps the enterprise to easily and cost-effectively handle all financial transactions (Wang and Huynh, 2013). ASA has become an integral part of most business processes (Wen et

al. 2012). Without the adoption or implementation of some ASAs, it becomes difficult for a business to gain a competitive advantage or even to survive (Harash et al. 2014). ASA assists in the provision of internally generated financial statements that provide useful information to users (Martani et al. 2012), and it contributes to the enterprise's value added (Mokodompit and Usman, 2020). Furthermore, with the help of ASA, management can make a variety of decisions to solve the enterprise's problems (Fitriyah, 2006). ASA plays an important role in evaluating the performance of MEs (Hanafi, et. al. 2021). It provides information to O/Ms of MEs to use in measuring financial performance (Maseko and Manyani, 2011). There is a relationship between the use of ASA and the performance of MEs (Lavia and Hiebl, 2015). MEs that adopt ASAs significantly increase their performance compared to those that do not (Kharuddin et al. 2010).

Fordham and Hamilton (2019) assumed that MEs have widely adopted ASA for their bookkeeping. In their research on 1,625 small businesses in the USA, they found that 64% of their sample did use some kind of computer-based software for their accounting (either accounting software, spreadsheets, or any other kind of information system-based application). Chen and Hamdan (2014) revealed that about 65% of MEs in the country of Brunei used basic software packages (Excel) to assist with their accounting needs. Mokodompit and Usman, (2020) found that the majority of MEs in Indonesia use ASA in its operational activities. Sam, Hoshino, and Tahir (2012) disclosed that approximately 80% of the SMEs have implemented ASA at different application levels. According to Alsaaty (2012), the information era has made it vital for every business to adopt automation technologies like ASAs. Mpofu and Mathys (2011) posit that O/Ms who fail to adopt ASA into their regular business operations risk being disadvantaged competitively in terms of meeting deadlines and taking business opportunities. MEs are becoming more and more competitive in the market as a result of implementing and using ASAs (Kanyanga, 2022).

4.3. MEs in Palestine

Palestine is considered an appropriate case for evaluating and assessing the ASA in MEs. As an emerging economy, the Palestinian economy relies heavily on MEs as they contribute 95% of the volume of the local GDP (Palestinian Business Forum, 2014). Palestine has nearly 140,934 registered MEs representing more than 92% of the total number of enterprises in the country, and 88.6% of the country's workforce is employed by these MEs (Palestinian Central Bureau of Statistics, 2021).

MEs existence and operation in Palestine should be supported, and they should be

encouraged to expand and develop business and employment opportunities (Mokodompit and Usman, 2020). Palestine Monetary Authority, a key component in promoting economic development and ensuring financial inclusion in Palestine, cares greatly about MEs (Palestine Monetary Authority, 2017). Most providers of finance in Palestine secure themselves with financial accounting information generated from an adequate ASA to reduce their risk (Qubbaja and Talahmeh, 2020). MEs activities cover almost all business sectors in Palestine, therefore they contribute greatly to Palestinian people's income (particularly, to those with low income). Therefore, it is necessary to carry out relevant research on the MEs in Palestine.

4.4. General Quality Features of ASAs

Qaoud (2007), Siam (2004), and Al-Hintawi (2001) listed some general characteristics of the efficient ASAs. These features can be summarized as follows:

1. **Speed,** which means the ability of the ASA to

   a. allow fast data entry on the computer using its formatted screens and built-in databases of customers and supplier details and stock records,

   b. do fast processing and adjustment, and

   c. provide information to the beneficiaries on time,

so that the ASA becomes useful and influential in planning, control, and decision-making.

2. **Accuracy,** which means

   a. there is less room for technical errors and inconsistencies in the outputs of the ASA,

   b. the information resulting from the ASA can be relied upon and it enhances the quality of financial reports.

   c. the ASA is tuned to automatically flag inconsistent data and mismatches or to at least make it easier to find the mistake and correct it.

Accuracy of the operational information produced by ASA would help the enterprise to be efficient and able to produce timely reports (Aggranni, and Hassanah, 2018; Intuit Inc., 2018). However, ASA's accuracy does not imply immunity to human errors arising from data entry or interpretation mistakes.

3. **Efficiency and effectiveness,** which means that the ASA is cost effective, provides useful output, and has the flexibility to meet future needs. It also means that the ASA provides management with the necessary reports, reduces the routine procedures, enables users to exchange information easily and conveniently, displays data according to the needs of the beneficiary, and enables multi-users. An efficient and effective ASA can contribute to the organizational goals. The effective implementation of ASAs in MEs is positively associated with performance, productivity, and profitability (Wilkinson et al., 2000; Mehdi et al., 2015). The effectiveness of ASA depends on the perception of decision-makers on the usefulness of information generated by the software to satisfy informational needs for operation processes, managerial reports, budgeting and control within organization (Ogah, 2013).

4. **Flexibility**, which means that the ASA has the ability to meet the needs of management with new reports, provide the possibility of obtaining all the data that the users need easily, does not need a long period of training, communicates information easily and simply, eases the effort for change in functions or in data that corresponds to the requirements, keeps pace with the current development in information technology, and can be updated and modified according to the current requirements and working conditions.

5. **Reliability**, which means that the ASA is able to produce up-to-date information that is characterized by its authenticity, integrity, unbiased, free from error, reflecting the actual reality and representationally faithful. This makes the information useful for planning, control and decision making. Topash (2014) suggested that the generated information through reliable ASAs is a key feature to guarantee generation of convincing accounting reports and encourage adherence to enterprise policies.

6. **Relevance**, which means that the ASA is able to provide only the desired information, that is aligned with the purpose for which the software was established. In other words, relevance is the concept that the information generated by an ASA should influence business decisions. The concept can involve the content of the information (must have a level of detail significant enough to show trends, comparisons, etc.) and/ or its timeliness, both of which can impact decision making.

7. **Comprehensiveness**, which means that the ASA is integral and can record financial transactions and generate periodic and special reports with sufficient information covering all aspects of business activities. A comprehensive ASA can help users automate most steps of the accounting cycle, enabling O/Ms to spend time on other

critical business aspects. A comprehensive ASA helps provide continuity and order to produce the financial statements that project the commitment and responsibility of the enterprise. The software should be responsible for processing and updating all the accounting information safely and reliably. It should also formalize and integrates the various features and functions of the electronic accounting, a task that supports generating reports and storing records and books of accounts that allow O/Ms to observe the financial condition of the enterprise.

8. **Built-in Security**, which means that the ASA ensures data and information confidentiality and safety, provides multiple levels of protection for system databases from unauthorized people, determines permissions for users, and allows the possibility of retrieving data and information in case of data loss. It also refers to the tools and permission restrictions that provide the ME with additional protection to the enterprise's sensitive data against the risk of business fraud (Aduamoah, et al. 2017).

9. **Proper Maintenance**, which means that the ASA is provided with changes made to correct problems that are discovered within the system ("bug fixing"), changes that help the software keeps up with the industry and changing market conditions so that it better reflects the current technology and business environment, changes to improve the software over a long period of time such as new performance upgrades, new features, new design updates, and changes that are aimed at preventing future software problems, particularly when it comes to potential cybersecurity threats. These types of maintenance keep the ASA running and performing its best.

10. **Effective Cost**, means that the benefits reaped from an ASA used by the ME, as it meets the enterprise's accounting needs, are commensurate with the money invested in it. Although the information generated from an ASA can be effective in decision-making process, purchase, installation, and usage of such a software are beneficial when the benefits exceed its costs (Ogah, 2013).

11. **Scalability**, refers to the flexibility and ability of the ASA to manage a growing number of users and higher loads of transactions. The ASA must be implemented to process various financial transactions depending on the degree of expansion of the enterprise. The ASA must be able to accommodate more business activities, and when the need arises for expansion, the enterprise should be able to upgrade it to a more advanced version in a consistent, easy, and within-budget manner. Another aspect of scalability deals with how flexible and quickly would the existing data convert from the ASA

legacy platform to a new platform? Will the interface of the new ASA package remain the same after an upgrade or a bug fix, and will the interface significantly reduce the depth of the needed training? Do current ME customers who opt to upgrade receive price incentives and how much? Will reports and other customized features still run when the old ASA package is upgraded? and will the user's data be overwritten as a result of the upgrade?

12. **Perceived Ease of Use**, which reflects the extent a user believes it is easy to use the ASA (Davis, 1989). According to Wang and Ha-Brookshire (2018), the perceived ease of use refers to the extent the user considers the use of the ASA is effortless and hassle-free. Users look for packages that are easy to understand and operate. They prefer applications that are easy to install, easy to navigate, provide simple error messages, easy to update, have a good graphical user interface, easy to uninstall, and are not bloated with unnecessary features. Thus, software developers need to understand user expectations regarding their perception of the system's ease of use (Lanlan and Popoola, 2019).

5. Research Hypotheses

The generalization of the previous studies and the consultation of nine accounting information system academics of local universities and software developers allows us to identify 31 criteria for general quality features Therefore, a questionnaire with the identified criteria was designed to evaluate the importance of these criteria.

The Cronbach's a is 0.9417, which represents the internal consistency reliability is excellent (George and Mallery, 2003). The Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy provides an index (between 0 and 1) of the proportion of variance among the variables that might be common variance (i.e., that might be indicative of underlying or latent common factors). A high KMO indicates the existence of a statistically acceptable factor solution representing relations between the parameters.

The survey was taken among 25 academics and experts in September 2022 by asking the importance of each criterion with five point Likert scale, where 1 and 5 represent very unimportant and very important, respectively. The number of valid questionnaires is 25. In this study, the Kaiser–Meyer–Olkin (KMO) value was found to be 0.9036, which is far better than the suggested 0.6 value (Kaiser, 1974). The criteria as well as the importance of the criteria are summarized in Table 2 which indicates that the importance values of 31 criteria fall in the range of 4.4976 and 3.0628.

Table 2

The importance of 31 criteria

Criterion	Importance
1. Flexibility	4.4976
2. Convenience	4.4928
3. Built-in security	4.4773
4. Comprehensiveness	4.4638
5. Proper maintenance	4.4300
6. Effective cost	4.3575
7. Reliability	4.3430
8. Accuracy	4.3140
9. Efficiency and Effectiveness	4.3092
10. Scalability	4.2899
11. Ease of Use	4.2899
12. Speed	4.2850
13. Reporting capability	3.9406
14. Operational	3.8154
15. Documentation	3.7402
16. ASA providers	3.7301
17. IT environment and infrastructure	3.3414
18. Functionality	3.2566
19. Technical	3.2367
20. Enterprise's current and future needs	3.2354
21. Degree of versatility	3.2319
22. Customization	3.2236
23. Possibility of using on various software-adapted platforms	3.2077
24. Enterprise size	3.1957
25. Users' requirements	3.1849
26. Variability	3.1708
27. Training	3.1594
28. Commercial	3.1498
29. Compatibility	3.1263
30. Enterprise type	3.1159
31. Social influence	3.0628

When the importance of criteria was identified, it was unrealistic to measure all of the criteria in a study with limited resources. To measure the criteria more effectively, 12 general quality criteria were selected as they are determined to be extremely important from the academics' and experts' point of view with importance values above 4. The following general quality criteria that we will use to assess the alternatives for ASA in MEs: Speed, Accuracy, Efficiency and Effectiveness, Flexibility, Reliability, Convenience, Comprehensiveness, Scalability, Proper Maintenance, Effective Cost, Built-In Security, and Ease of Use (Choe, 1998; Doll and Torkzadeh, 1988; Meiryani, Susanto, and Sudrajat, 2020). However, some ASAs may have all the general quality features as demonstrated by the vendor, but some of these features may generate errors once they are exercised.

The focus of this research on Ready-to-Use ASA could be rationalized by the fact that this type of software is well suited for MEs, where the frequency or volume of accounting transactions is very low, the cost of installation is generally low, number of users is limited, it is relatively easier to learn, and people adaptability is very high. The training needs are simple and sometimes the vendor (supplier of software) offers free training. However, the software gives little opportunity for connection to other information systems, has a relatively poor level of security, and is vulnerable to data fraud.

Considering the existence of a very limited number of studies on the general quality features of ASA implemented by MEs, the following research questions are raised: Do the majority of ASAs used by MEs in Palestine today realize the general quality features? Do these computer applications meet the users' needs and desires? To answer these questions, we developed and tested several hypotheses.

The following hypotheses were actually proposed based on the very little literature available on the quality of ASAs in MEs as well as on both the literature on the same topic that is related to small enterprises and the experienced experts who are specialized in ASAs.

H1. The general quality features, including speed, accuracy, efficiency and effectiveness, flexibility, reliability, relevance, comprehensiveness, built-in security, proper maintenance, effective cost, scalability, perceived ease of use, and the ability to meet the needs and desires of the users, are available in the ASAs used by MEs in Palestine.

H2. There are statistically significant differences (at the level of significance $\alpha = 0.05$) between the availability of general quality features and the ability to meet the needs and desires of the users in MEs attributable to the type of ASA used.

6. Methodology and Method

6.1. Data Collection and Sampling

The data used in this study were collected through means of a questionnaire, which was based on a pilot study and literature review. This literature is mainly those studies that researched the general quality features. The questionnaire was divided into two parts. Part I: is devoted to collecting data about the individual who uses the ASA adopted by an ME. This data includes the age, gender, location, educational qualifications, name of the ASA, and years of experience with the ASA. Part II: is devoted to collecting data about the ASA adopted by the ME. It includes two subparts, each of which contains several elements. The first subpart concerned with the extent to which the ASA contains general quality features. It collects data about speed, accuracy, efficiency and effectiveness, flexibility, reliability, relevance, comprehensiveness, built-in security, proper maintenance, effective cost, scalability and perceived ease of use. The second part collects data about the extent to which the ASA has the capacity and the capabilities necessary to meet the needs and desires of the users. The questionnaires used to collect the data consisted mostly of close-ended questions with Five-Likert Scale with the following values: Strongly Agree (5), Agree (4), Neutral (3), Disagree (2), and Strongly Disagree (1).

The population of the study is composed of all MEs operating in all sectors of the Palestinian economy in the GS that use ASAs (Palestinian Central Bureau of Statistics, 2021). The selected MEs have no more than 5 employees, have adopted a Ready-to-Use ASA, have been established at least three years ago, are owned and managed by one person, and are represented by an individual who is good at working with an ASA. The selected MEs are also distributed among the following ASAs: Al-Aseel, Al-Muhasib Al-Momtaz, Al-Muhasib Azzaki, Babylon, and Al-Muhasib Assihri.

The MEs that meet the predetermined selection criteria were identified and located with the help of both the software vendors and the field software maintenance personnel. A total sample size of 173 MEs (constituting almost 35% of the population) was selected for this study. The population was stratified according to the business type of those enterprises, which satisfies the purpose of the study. The selection of those enterprises was based on the number of each strata (stratified random sample) to ensure a balance in the selection of the samples between those enterprises while taking into consideration the size of their spread to achieve an objective evaluation. All of the selected enterprises were voluntarily willing to participate in this study.

6.2. The Validity and Stability of the Questionnaire

To confirm the authenticity of the questionnaire, the researcher presented the questionnaire to

a. five accounting professors with teaching experiences in Accounting Information Systems at two universities located in the GS (namely, the Islamic University of Gaza and Al-Azhar University),

b. five professionals who specialized in the design of ASA widely spread in the GS, and

c. three experts in statistics.

Based on the feedback received for the above experts, the wording of some paragraphs in the questionnaire had to be amended, some paragraphs had to be completely deleted, and some paragraphs had to be moved to other areas. The revised draft of the questionnaire was then used for consistency verification.

To verify the consistency of the questionnaire, the (78) statements Spearman Correlation Coefficients and the Cronbach's alpha, were calculated. These metrics evaluate the accuracy of the paragraphs structure of the two themes of the questionnaire.

The results from the Spearman test shown in Table 3 indicate that the coefficient of stability of the questionnaire was 0.983, which is statistically significant at a confidence level $\alpha = 0.01$. This finding confirms the stability of the questionnaire used in this study.

Table 3

Stability coefficients of study themes using Spearman coefficient

#	Themes of the Questionnaire	# of Sentences	Spearman Correlation Coefficient	Stability Coefficient	Significance Level
1	General quality Features	70	0.964	0.981	0.000
2	Capability of AS to meet users' needs and desires	8	0.802	0.890	0.000
All Themes of the Questionnaire		78	0.968	0.983	0.000

The results from the Cronbach test presented in Table 4 indicate that the value of the Cronbach's alpha coefficient for each theme of the questionnaire was significantly high (not less than 0.8904), and for the themes as a whole is more than 90%. This finding confirms the validity and stability of the questionnaire used for the purposes of this study.

Table 4

Reliability coefficients of the questionnaire themes using Cronbach's Alpha Coefficient

#	Themes of the Questionnaire	# of Sentences	Cronbach's alpha coefficient
1	General quality Features	70	0.8904
2	Capability of AS to meet users' needs and desires	8	0.9408
All Themes of the Questionnaire		78	0.9230

The targeted population of the study consists of Palestinian MEs that have one Owner/ Manager, employ not more than 5 employees, employ an accountant, and use an ASA. With the help from the professional accountants who are members of the Palestinian Accountants Association, the author identified the total number of MEs that meet the predetermined specifications which is 495, and obtained the names and locations of those MEs. Thirty-five percent of the 405 MEs (173 units) was decided to be the sample size (Sekaran, 1992, pp.250-254). To ensure careful selection, each ME was given a serial number starting from one. When the enterprises have been all numbered, a list of random numbers is generated by Microsoft Excel using this equation: Rand = (int()*(1-sample size to be placed here)). The MEs with numbers that match the numbers in the list are drawn from the population. The researcher and other friends delivered the questionnaires to the respondents and then collected the completed ones.

With the help of some friends who are experts with surveys all the questionnaires were directly distributed to the accountants who are representing the MEs in the sample and are using the ASAs adopted by those enterprises, of which 162 questionnaires were completed and returned. Twelve questionnaires were excluded because of the lack of seriousness of the answers. For example, some questions were incomplete, some had double answers on a Likert scale, and others had contradictory answers. This exclusion brings the number of valid questionnaires to 150 resulting in a response rate of 30%, which is well above

the average response rate for survey-based management research (Hiebl and Richter, 2018). High response rates and probabilistic samples usually increase the sample's representativeness, allow for statistical inference (Van der Stede et al., 2005; Hiebl and Richter, 2018), and reduce sampling biases (Spekle and Widener, 2018).

6.3. Data Analysis

This study adopted the analytical descriptive approach of the Sign Test and Kruskal Wallis test, and it used the SPSS statistical analysis software for data analysis.

7. Results

7.1. Analysis of the Sample Characteristics

Table (5) shows that the MEs in the collected sample represent almost all sectors of the Palestinian economy. It also shows that the commercial sector has the highest percentage of MEs that use ASAs. Based on these results one can conclude that the sample design reflects an appropriate and proportional distribution of the general characteristics of the population (Spekle and Widener, 2018).

Table 5

Distribution of MEs in the sample according to the type of business

Description	of enterprises #	%
Commercial	91	60.7
Construction Industry	26	17.3
Manufacturing	20	13.3
Service	13	8.6
Total	150	100

According to the data in Table 6, the majority of the respondents who use ASAs adopted by the MEs in the sample are bachelor's degree holders.

Table 6

Distribution of respondents by Education Qualifications

Description	# of respondents	%
Graduate Degree	14	9.3
Bachelor degree	122	81.3
Below Bachelor Degree	14	9.4
Total	150	100

The data presented in Table 7 indicate the vast majority of respondents (more than 73%) is specialized in accounting, and that 22% of the respondents are specialized in management and economic. These percentages mean that most respondents have an appropriate background that enables them to understand the questions in the questionnaire and provide answers that express their perspectives.

Table 7

Distribution of respondents by academic major

Description	# of respondents	%
Accounting	110	73.33
Management	21	14.00
Economics	12	8.00
Have no major	7	4.67
Total	150	100

The results presented in Table 8 indicate a high percentage (80%) of respondents have used ASAs for less than 11 years, which indicates an increasing prevalence of the use of ASAs among accountants working for MEs in Palestine.

Table 8

Distribution of respondents based on working experience period with a AS

Description	# of respondents	%
Less than 6 years	82	54.7
6 – 10 years	38	25.3
11 – 15 years	14	9.3
More than 15 years	16	10.7
Total	150	100

The data in Table 9 show that most of the respondents are under age of 30, while few of the respondents are over age of 51, which indicates an increasing demand for the use of ASAs among the younger generations of accountants working for MEs in Palestine.

Table 9

Age of respondents

Description	# of respondents	%
Less than 30 years	62	41.3
30 – 40 years	44	29.3
41 – 50 years	36	24
More than 51 years	8	5.4
Total	150	100

It is very clear from the data presented in Table 10 that a high percentage (49%) of the MEs in the sample are located in the Gaza City. This should not be a surprise, because Gaza city is the capital of the Gaze Strip, and it is it's the largest and most economically active region.

Table 10

Micro Enterprises' locations

Description	# of respondents	%
Gaza City Region	74	49
South GS Region	45	30
Middle of GS Region	16	11
North GS Region	15	10
Total	150	100

It is clear from the data presented in Table 11 that Al-Aseel accounting system is the most popular system in use by MEs in the GS.

Table 11

Type of ASAs currently used in MEs

Description	# of respondents	%
Al-Aseel Accounting System	74	49.3
Al-Muhasib Al-Momtaz Accounting System	26	17.3
Al-Muhasib Azzaki	22	14.7
Babylon Accounting System	18	12
Al-Muhasib Assihri	10	6.7
Total	150	100

7.2. Testing the Hypotheses

This research explored the extent the general quality characteristics realized in the ASAs employed by MEs in Palestine and the extent these computer applications meet the needs and desires of the users. For statistical analysis nonparametric tests, namely the Sign Test, was applied, because it neither requires any specific conditions concerning the shape of the population nor the value of any parameters. This test suits the data of the study as they are arranged in an ordering scheme. It also verifies whether the median of the

respondents' opinions on each of the questionnaire statements as well as the median of the fields, as a whole, is statistically different from the median of the scale used in the questionnaire. The null and alternative hypotheses for the Sign Test are: H0: M 3 =< and H1: M 3 = >. All hypotheses are listed in Section (6) above.

1.1.   Results of testing the first hypothesis:

As the first hypothesis states that "the general quality feature including speed, accuracy, efficiency and effectiveness, flexibility, reliability, relevance, comprehensiveness, built-in security, proper maintenance, effective cost, scalability, perceived ease of use and the ability to meet the needs and desires of the users are available in ASAs used by MEs in Palestine", the results indicate that the average means in Table12 show that there are statistically significant differences between the respondents' median opinions and the scale used in the questionnaire (3.0) regarding the availability of the general quality features in the ASAs used by MEs in Palestine. The overall median of the respondents' opinions is primarily between (3.2480) and (4.0778), and the overall significance level of the sign test is (0.000) which is less than (0.05). The respondents' agreement with the inclusion of all general quality requirements in those ASAs is supported by this finding.

Table 12

Results of Testing the Hypothesis

General Quality Features	# of positive signs	%	# of negative and neutral signs	Sample size	Significance level	Average Mean
1. Speed	140	93	10	150	0.000	4.0778
2. Accuracy	140	93	10	150	0.000	3.9967
3. Efficiency and effectiveness	134	89	16	150	0.000	3.6689
4. Flexibility	124	83	26	150	0.000	3.7233
5. Reliability	140	93	10	150	0.000	3.9867
6. Relevance	132	88	18	150	0.000	3.7433
7. Comprehensiveness	108	72	42	150	0.000	3.5467
8. Built-in Security	128	85	22	150	0.000	3.7067
9. Proper Maintenance	128	85	22	150	0.000	3.9667
10. Effective Cost	108	72	42	150	0.000	3.4633
11. Scalability	86	57	64	150	0.043	3.2480
12. Ease of Use	120	80	30	150	0.000	3.8000
13. The ability to meet the needs and desires of all users	108	72	42	150	0.000	3.6613

The level of statistical significance was calculated based on ($\alpha = 0.05$)

The signs were determined based on: (the median of Likert scale 3 minus the median of respondents' opinions).

Table 13: Average mean, weighted percentage, rank, and significance level for the inclusion of general quality features in the ASAs adopted by MEs with explanations to the results

General Quality Features	Aver. Mean	Weighted Percentage	Rank	Signif. level	Explanation of the results
1. Speed	4.0778	81.5	1	0.000	This finding shows that these applications are fast. Though, it is not clear whether these applications are intrinsically fast, or the observed speed is due to the speed of the computer hardware they are installed on. Regardless, it is extremely important that the ASAs are installed on computers with excellent specifications and speeds to make the compilation and evaluation of the business activities easier and faster.
2. Accuracy	3.9967	79.9	2	0.000	This result confirms that the software vendors are concerned with fixing errors, removing shortcomings, and bridging gaps in these computer applications as soon as they occur, because these venders compete to market their products to the largest number of MEs
3. Reliability	3.9867	79.7	3	0.000	This result confirms the high and excellent respondents' approval of the availability of reliability in ASAs used by MAEs. The availability of reliability in ASAs is an inevitable consequence of the availability of accuracy, and it ensure the integrity of the information generated by the software.

4. Proper Maintenance	3.9667	79.3	4	0.000	This result is normal and can be justified because all the ASA vendors provide varying degree of maintenance. Some O/Ms are not willing to pay for annual maintenance plan, because they don't see the point. They often say: "everything is working fine so far, why should I pay for something I don't need?" They prefer to pay for maintenance as needed; i.e., each time they call the vendor to solve a problem they are encountering. They don't realize that ASA maintenance plans are critical for not only maximizing the value of their software investment, but also for protecting MEs critical data.
5. Ease of Use	3.8000	76	5	0.000	This result is normal, as one does expect the software developers to keep the end-user in mind during the development process. Software developers, often use their staffs with the most technical and practical skills to not only understanding how the user perceive the concept of ease of use of their software, but also they are keen to meet their user's expectations. Vender's concern is always to achieve the highest level of customer satisfaction and the most competitive edge for their companies in the Palestinian software market.

6. Relevance	3.7433	74.9	6	0.000	This result indicates that ASAs are able to generate accurate and orderly information. Such information is valuable enough to help the end-users make predictions/estimations about future events. This forecast will be important for making significant strategic or operational decisions.
7. Built-in Security	3.7067	74.1	7	0.000	This result confirms that these ASAs employ some type of built-in security framework that includes automatic updates, auto clean, password protection, user identification, and data encryption features. The security framework only allows authorized users to access the system. The provision of secured information and data produced by the ASAs implemented in MEs is necessary and imperative, in order to maintain privacy and confidentiality of the enterprise and to ensure that the application is completive.
8. Flexibility	3.7233	73.5	8	0.000	This result may indicate that, there is a provision in these ASAs for different users for the inclusion of changed information. They are adequately flexible in terms of data entry, retrieval of data, and the availability and design of various reports generated by them. They also offer some flexibility between the users of the software, the switch over between users, the operating systems and the hardware. Furthermore, they are capable of running on a variety of computers with different operating systems and configurations.

9. Efficiency and effectiveness	3.6689	73.4	9	0.000	This result may indicate that these ASAs lead to cost reduction, since they fit the assigned work, perform it with high productivity, and meet the objectives and requirements set for it. It also may indicate that these ASAs work within efficient networks that enables timely transmission of data and information, and use database management that have a high capacity in terms of storage, retrieval, deletion, display and printing.
10. The ability to meet the needs and desires of all users	3.6613	73.2	10	0.000	This is a clear and understandable result, as the software vendors in Palestine hire highly qualified software developers capable of producing ASAs with a high potential and advanced features. They are constantly competing with each other in interviewing their software users for the purpose of meeting their needs and solving the problems they encounter.
11. Comprehensiveness	3.5467	70.9	11	0.000	This result is due to the high competition that exists between software vendors to upgrade their products, to make their products comprehensive and more integrated, and to meet the users' needs and desires.
12. Effective Cost	3.4633	69.3	12	0.000	This result may indicate that the majority of respondents perceive the total true cost of owning any of these ASAs is reasonable, and the benefits obtained from using it is well worth the cost.

13. Scalability	3.2480	64.9	13	0.043	This result may indicate that the ASAs used by MEs is not scalable as required, and does not grow in harmony with the growth of these enterprises. Consequently, there is a risk that most O/Ms will later discover and regret that these software applications only meet the enterprise's immediate needs but are unable to meet the emerging needs of the enterprise or help it grow in a beneficial way. They will also realize that purchasing and employing un-scalable software was a waste of money and the effort and the process of replacing it is an urgent necessity. This result may also indicate that the process of selecting the ASAs by the O/Ms may be done hastily or without careful search and study on the available ASA that can meet the current and future needs of the enterprise.

Table 14

Comparison of general quality features in the ASAs used by MEs and the ability of the systems to meet the needs and desires of the users

Description	The ASAs used by MEs						Chi-Square (χ2)	Signif. level
	Babylon	Al-Muhasib Assihri	Al-Muhasib Al-Momtaz	Al-Muhasib Azzaki	Al-Aseel	Average Mean		
Speed	3.8704	4.3667	4.3205	3.5606	4.1577	4.0778	26.555	0.000
Accuracy	3.9444	4.2500	4.25	3.8182	3.741	3.9967	12.603	0.013
Efficiency and Effectiveness	3.7315	3.5500	3.8462	3.2197	3.741	3.6689	24.916	0.000
Flexibility	3.5972	3.8000	3.1635	3.2159	3.7399	3.7233	27.575	0.000
Reliability	3.8222	4.0400	4.2923	3.7091	3.9946	3.9867	18.972	0.001
Convenience	3.7500	3.6500	3.9423	3.4545	3.7703	3.7433	11.203	0.024
Comprehensiveness	3.6825	3.6286	3.033	3.5548	3.6255	3.5467	24.222	0.000
Built-in Security	3.9047	3.9667	4.1282	2.8485	3.7297	3.7067	32.512	0.000
Proper Maintenance	3.8333	3.5000	4.2692	2.7955	3.8986	3.9667	52.042	0.000
Effective Cost	3.6667	3.7500	4.0577	2.4318	3.473	3.4633	31.173	0.000
Scalability	4.0222	3.0000	3.8923	2.3727	3.127	3.2480	51.130	0.000
Perceived ease of use	3.8333	3.9000	4.1154	3.6818	3.7027	3.8000	8.588	0.072
The ability to meet the needs and desires of the users	3.5370	3.5333	3.9487	3.333	3.7054	3.6613	12.880	0.012
Average Total	3.7843	3.7643	3.9430	3.2305	3.7236			

The level of statistical significance (α) was calculated on the basis of (α = 0.05)

The hypothesis that there are statistically significant differences at the level of significance

($\alpha = 0.05$) between the availability of the general quality features and the ability to meet the needs and desires of the users attributable to the type of ASA used was tested using Kruskal Wallis test. The obtained results are presented in Table 14; and discussed as follows:

1. The average means of the "availability of speed" in the ASAs indicate that Al-Muhasib Assihri has an obvious advantage over the other systems (4.3667). It is followed by Al-Muhasib Al-Momtaz (4.3205), Al-Aseel (4.1577), Babylon (3.8704), then Al-Muhasib Azzaki (3.5606). The calculated (26.555) value of the Chi-square (X^2) is lower than the tabular value, and it shows a statistical significance at $\alpha = 0.05$. Accordingly, this result indicates that there are statistically significant differences at $\alpha = 0.05$ in terms of the availability of speed among the ASAs used by MEs in Palestine. This result also confirms that there is a disparity in the ASAs in terms of performance speed. This disparity varies depending on four important factors: the type of software used, whether it is a DOS-based or Windows-based software, whether the computers on which the software is installed and other used hardware devises are advanced or not, and whether the software is installed on a personal computer or a server involving a LAN or a WAN network.

2. The average means of the "availability of accuracy" in the ASAs show that both Al-Muhasib Assihri (4.2500) and Al-Muhasib Al-Momtaz (4.2500) has a significant advantage over the other systems. They are followed by the Babylon (3.9444), Al-Muhasib Azzaki (3.8182), then Al-Aseel (3.7410). The calculated (12.603) value of the Chi-square (X^2) is lower than the tabular value, and it shows a statistical significance at $\alpha = 0.05$. Accordingly, this result indicates that there are statistically significant differences at $\alpha = 0.05$ in terms of the availability of accuracy among ASAs used by the MEs in Palestine. The result also confirms the fact that the ASAs used by MEs differ among themselves in terms of performance accuracy, which is reflected positively and clearly in the accuracy and integrity of the information and reports they produce. However, there are few software applications that produce conflicting, erroneous, or illogical results, which always required direct intervention from their software vendors to fix the bugs as they occur.

3. The average means of the "availability of efficiency and effectiveness" in the ASAs used by MEs show that Al-Muhasib Al-Momtaz (3.8462) has obvious advantage over the other systems. It is followed by Al-Aseel (3.7410), Babylon (3.7315), Al-Muhasib Assihri (3.5500), then Al-Muhasib Azzaki (3.2197). The calculated (24.916) value of the Chi-square (X^2) is lower than the tabular value, and it shows a statistical significance at $\alpha = 0.05$. Accordingly, this result indicates that there are statistically

significant differences at α = 0.05 in terms of the availability of efficiency and effectiveness among the ASAs used by MEs in Palestine. This is normal as ASAs vary in their efficiency and effectiveness, depending on many factors. Among these factors are: the operating environment of the system and the efficiency of the software vendors' programmers and designers.

4. The average means of the "availability of flexibility" in the ASAs used by MEs show that Al-Muhasib Assihri (3.800(has obvious advantage over the other systems. It is followed by Al-Aseel (The Twilight) (3.7399), Babylon (3.5972), Al-Muhasib Azzaki (3.2197), then Al-Muhasib Al-Momtaz (3.8462). The calculated (27.575) value of the Chi-square (X^2) is lower than the tabular value, and it shows a statistical significance at α = 0.05. Accordingly, there are statistically significant differences at α = 0.05 in terms of the availability of flexibility among the ASAs used by MEs in Palestine. This is normal as ASAs' flexibility varies in meeting what the user needs and desires. Such variations might be due to the how powerful the system structure was and whether the system was locally developed or was customized from a system imported from abroad to meet the needs of the Palestinian MEs.

5. The average means of the "availability of reliability" in the ASAs used by MEs show that Al-Momtaz (4.2923) has obvious advantage over the other systems. It is followed by Al-Muhasib Assihri (4.0400), Al-Aseel (3.9946), Babylon (3.8222), then Al-Muhasib Azzaki (3.7091). The calculated (18.972) value of the Chi-square (X^2) is lower than the tabular value, and it shows a statistical significance at α = 0.05. Accordingly, there are statistically significant differences at α = 0.05 in terms of the availability of reliability in the ASAs used by MEs in Palestine. This variability in reliability can be attributed to errors generated by some of the ASA applications, which reduces the reliability of these system and increase the need for continuous error checking in the outputs of the software.

6. The average means of the "availability of convenience" in the ASAs used by MEs show that Al-Muhasib Al-Momtaz (3.9423) has obvious advantage over the other systems. It is followed by Al-Aseel (3.7703), Babylon (3.7500), Al-Muhasib Assihri (3.6500), then Al-Muhasib Azzaki (3.4545). The calculated (11.2030) value of the Chi-square (X2) is lower than the tabular value, and it shows a statistical significance at α = 0.05. Accordingly, there are statistically significant differences at α = 0.05 in terms of the availability of convenience among the ASAs used by MEs in Palestine. The convenience of the ASAs used by MEs varies. The least convenience is encountered

when old ASA is used by an enterprise which its activities are being expanded and new investment projects are being added. Old ASA are usually not subject to development and hence no longer meet the needs of the enterprise. Some ASAs in Palestine have been operating in this environment for a long time without being updated.

7. The average means of the "availability of comprehensiveness" in the ASAs used by MEs show that the Babylon system (3.6825) has obvious advantage over the other systems. It is followed by Al-Muhasib Assihri (3.6286), Al-Aseel (3.6255), Al-Muhasib Azzaki (3.5548), then Al-Muhasib Al-Momtaz System (3.0330). The calculated (24.222) value of the Chi-square (X2) is lower than the tabular value, and it shows a statistical significance at α = 0.05. Accordingly, there are statistically significant differences at α = 0.05 in terms of the availability of comprehensiveness among the ASAs used by MEs in Palestine. This result is normal, as the ASAs used by MEs in Palestine varies in satisfying all users' needs and desires.

8. The average means of the "availability of built-in security" in the ASAs used by MEs show that Al-Muhasib Al-Momtaz (4.1282) has obvious advantage over the other systems. It is followed by Al-Muhasib Assihri (3.9667), Babylon (3.9047), Al-Aseel (3.7297), then Al-Muhasib Azzaki (2.8485). The calculated (32.512) value of the Chi-square (X2) is lower than the tabular value, and it shows a statistical significance at α = 0.05. Accordingly, there are statistically significant differences at α = 0.05 in terms of the availability of built-in security among the ASAs used by MEs in Palestine. The variation in the ability to safeguard and secure information and data among the ASAs used by MEs in Palestine may be due to the software's robust structural design, type of built-in security framework, and degree of fit to the nature and size of the enterprise's activities. It was observed that certain software applications have robust built-in security, which is a factor in regulating the performance of these applications.

9. The average means of the "availability of proper maintenance" to the ASAs used by MEs show that Al-Muhasib Al-Momtaz (4.2692) gets proper maintenance more than the other systems. It is followed by Al-Aseel (3.8886), Babylon (3.8333), Al-Muhasib Assihri (3.500), then Al-Muhasib Azzaki (2.7955). The calculated (52.042) value of the Chi-square (X2) is lower than the tabular value. and it shows a statistical significance at α = 0.05. Accordingly, there are statistically significant differences at α = 0.05 in terms of the availability of proper maintenance among the ASAs used by MEs in Palestine. The level of maintenance provided to the ASAs in MEs varies among Palestinian software vendors. These venders are required to provide periodic as well as upon-

request maintenance if an annual maintenance contract is in place. However, they only offer upon-request maintenance in the absence of a maintenance contract.

10. The average means of the "availability of Effective Cost" in the ASAs used by MEs show that Al-Muhasib Al-Momtaz (4.0577) has obvious advantage over the other systems. It is followed by the Al-Muhasib Assihri (3.7500), the Babylon (3.6667), Al-Aseel (The Twilight) (3.4730) then Al-Muhasib Azzaki (2.4318). The calculated (31.173) value of the Chi-square (X2) is lower than the tabular value, and it shows a statistical significance at α = 0.05. Accordingly, there are statistically significant differences at α = 0.05 in terms of the availability of effective cost among the ASAs used by MEs in Palestine. The full cost of purchasing ASAs in the Palestinian market varies depending on the software quality and the nature of vendor's marketing policy. It should be highlighted, nevertheless, that certain Palestinian software vendors are eager to offer extremely low-price products to their customers, but other software venders stick to an almost fixed selling price for their software.

11. The average means of the "availability of scalability" in the ASAs used by MEs show that the Babylon (4.0222) has obvious advantage over the other systems. It is followed by Al-Muhasib Al-Momtaz (3.8923), Al-Aseel (3.1270), Al-Muhasib Assihri (3.0000), then Al-Muhasib Azzaki (2.4318) sequentially. The calculated (51.130) value of the Chi-square (X2) is lower than the tabular value, and it shows a statistical significance at α = 0.05. Accordingly, there are statistically significant differences at α = 0.05 in terms of the availability of scalability among the ASAs used by MEs in Palestine.

12. The average means of the availability of perceived "ease of use in the ASAs" used by MEs show that Al-Muhasib Al-Momtaz (4.1154) has obvious advantage over the other systems. It is followed by Al-Muhasib Assihri (3.9000), Al-Aseel (3.7027), Al-Muhasib Azzaki (3.6818) then Babylon (3.5370). The calculated (8.5880) value of the Chi-square (X2) is lower than the tabular value, and it shows a statistical significance at α = 0.05. Accordingly, there are statistically significant differences at α = 0.05 in terms of the availability of perceived ease of use among the ASAs used by MEs in Palestine. This result may indicate that the users of Al-Muhasib Al-Momtaz find the software interface so familiar and intuitive, which enables them to complete their tasks/goals easily and effortlessly. The results may also indicate that the software designers did an excellent job in understanding the fine details of the user's needs from the user's point of view rather than from the developer's point of view. The designers did great job in anticipating the use case scenarios and contexts in which their software will be used, and they devised simple/intuitive interface and procedures for this purpose.

13. The average means of the "availability of the ability of ASAs used by MEs to satisfy the needs and desires of users" show that Al-Muhasib Al-Momtaz (3.9487) has obvious advantage over the other systems. It is followed by Al-Aseel (3.7054), Babylon (3.5370), the Al-Muhasib Assihri (3.5333), then Al-Muhasib Azzaki (3.333). The calculated (12.880) value of the Chi-square (X2) is lower than the tabular value and shows a statistical significance at α = 0.05. Accordingly, there are statistically significant differences at α = 0.05 in terms of the availability of the ability to satisfy the needs and desires of all users among ASAs implemented by MEs in Palestine. The ability of ASAs used by MEs in Palestine to satisfy the users' needs and desires varies, and it depends on the kind of needs the users have and how much they are aware of and educated about professional accounting.

The above discussion for the findings of hypotheses reveals that there are statistically significant differences at α = 0.05 among the ASAs used by MEs in Palestine in terms of the availability of all specified general quality features and their ability to meet the needs and desires of the users.

Table 15 show these software applications ranked based on the average means presented in Table 13. Table 15 reveal the extent of convergence among the systems in terms of the availability of general quality features. It shows that Al-Muhasib Al-Momtaz ranks first followed by Babylon, Al-Muhasib Assihri, Al-Aseel, then Al-Muhasib Azzaki.

Table 15

Ranking the ASAs used by MEs in Palestine in terms of the availability of general quality features

Accounting Software Application (ASA)	Average Mean	Rank
Al-Muhasib Al-Momtaz	3.9430	1
The Babylon	3.7843	2
Al-Muhasib Assihri	3.7643	3
Al-Aseel	3.7236	4
Al-Muhasib Azzaki	3.2305	5
Overall Average Mean	3.7318	

Table 16 shows these applications ranked according to the average means presented in Table (12). Table (14) reveals the extent of the ability of the ASAs used by MEs in

Palestine to meet the needs and desires of the users. It shows that Al-Muhasib Al-Momtaz ranks first, followed by Al-Aseel, Babylon, Al-Muhasib Assihri, then Al-Muhasib Azzaki.

Table 16

Ranking the ASAs used by MEs in Palestine in terms of the ability to meet users' needs and desires

Accounting Software	Average Mean	Rank
Al-Muhasib Al-Momtaz	3.9487	1
Al-Aseel	3.7054	2
The Babylon	3.5370	3
Al-Muhasib Assihri	3.5333	4
Al-Muhasib Azzaki	3.333	5

Table 17

The ranking of each APA according to the availability of general features and the ability to meet users' needs and desires

Accounting Software Application (ASA)	Rank based on:	
	The ability to meet users' needs and desires	The availability of general features
Al-Muhasib Al-Momtaz	1	1
The Babylon	3	2
Al-Muhasib Assihri	4	3
Al-Aseel	2	4
Al-Muhasib Azzaki	5	5

The results obtained from the comparison of the ranks that each ASA gained in terms of the availability of general quality features and the ability to meet the needs and desires of the users, are presented in Table 17, which may indicate the followings:

Al-Muhasib Al-Momtaz ranks first in both situations, while Al-Muhasib Azzaki ranks last in both features.

The rank of Al-Aseel in terms of the ability to meet the needs and desires of the users is much better than its rank in terms of the availability of general quality features. It ranks second for the first feature, but it ranks fourth in the second feature.

The rank of Babylon in terms of the availability of general quality features is better than its rank in terms of the ability to meet the needs and desires of the users. It ranks second in the first feature and third in the second feature.

The rank of the Al-Muhasib Assihri in terms of the availability of general quality features is better than its rank in terms of the ability to meet the needs and desires of the users. It ranks third in the first feature and fourth in the second feature.

8. Conclusions, Limitations, and Future Research

8.1. Conclusions

The study explored the extent to which the general quality features are available in ASAs adopted by MEs in Palestine. It also explored the extent to which these software applications meet the needs and desires of the users. To test the hypotheses of this study, the Signal, Chi-Square, and Kruskal Wallis tests were applied to the questionnaire data collected from the GS of Palestine. The study found that ASAs used by MEs in Palestine have the general quality features to varying degrees, and they have the ability to meet the current needs and desires of users in that region. The study also found that there is a strong correlation between the availability of general quality features in ASA (namely speed, accuracy, efficiency and effectiveness, flexibility, and control) and the abilities of these systems to meet the needs and desires of the users. The amount of correlation depends on the type of the ASA system.

This study contributes to the literature in many ways. First, it is the first study that explores the ASA in MEs in Palestine. Second it is the first study to investigate the extent to which the general quality features are available in these software applications and the extent to which these systems meet the users' needs and desires. Third, the study contributes to a better understanding of the MEs and the ASAs they use.

The results from this study provide meaningful insights for academician and researcher. They are also insightful for accountants, O/Ms, stakeholders, governments, software providers, and other related parties. The insight the results provide would allow these

parties to acquire a better understanding of the benefits of ASAs to MEs and encourage more MEs to adopt ASAs. This study, as prior studies did, highlights the importance of training O/Ms on relevant technology and accounting skills. The training programs should be specifically designed for particular needs of O/Ms, such as planning, controlling, monitoring and decision-making skills and competencies.

The results suggest that ASAs providers need to always upgrade the ASAs, so that the ASAs become more user friendly and more satisfying for the needs and desires that are conformant to the prevailing accounting and auditing principles and norms. O/Ms need to conduct an in-depth and informed investigation on available ASAs when deciding to adopt an ASA. One possibility for doing so is by getting help from experienced professionals in ASAs. Finally, since the absence of government control over the performance of ASAs facilitates tax evasion, it is necessary for the Palestinian Ministry of Finance to establish adequate policies and guidelines regarding the adoption of software for accounting by MEs. It is also necessary for this Ministry to exercise an active monitoring role on the output of the systems used in these enterprises.

8.2. Limitations

This study is not free of limitations. It was conducted in an emerging economy, which has been highlighted as a research opportunity in prior research. The study was limited to the ready-to-use ASAs only. It was not possible for the researcher to incorporate some of the MEs based in the West Bank of Palestine, because borders crossing between the GS and the West Bank is currently not possible. Israeli occupation has been imposing a restricted military blockade on the GS for the past 15 years. This study may not fully reflect the overall users' perspectives on the ASAs used by MEs in Palestine, which may affect the generalization of the results. Additionally, this study assessed the extent to which the ASAs used in MEs in Palestine meet the needs and desires of the users, however, it did not explore and specify the needs and desires these systems meet.

8.3. Future research

The scarcity and limitations of research on the quality of ASAs used by MEs makes it imperative to do further research on this topic. First, it would be interesting to conduct a similar study on MEs based on West bank region, so a comparative study could be performed to generalize the obtained results for the entire Palestine. Second, this research can be improved by conducting a study with a larger sample of MEs from both regions (the GS and West Bank) to provide a better understanding of the general quality features

of ASAs used by MEs, which can reflect the whole picture of Palestine. Third, it would be interesting to perform the same investigation on customized and tailored ASAs adopted by MEs in Palestine. Fourth, a study based on the case-study research approach would also be useful to perform and compare its finding to those of this study. This approach can produce a more detailed explanation of the general quality features of ASAs in MEs and may complement our findings. Fifth, given the great heterogeneity of MEs, and their dependence on the O/M, it would be very illustrative to fully analyze the perspectives the O/Ms adopts on the general quality features of ASAs. Sixth, this an analysis of the impact of ASAs on the performance of MEs in Palestine would greatly complement this study. One possibility to do so is by using the net margin or return on investment to measure this impact on worker's productivity and efficiency. Finally, it would be interesting to extend this research across emerging economies of different latitudes or developed countries and perform comparative studies.

References

1. Abu-Musa, A. A. (2005). The determinates of selecting accounting software: A proposed model. *Review of Business Information Systems (RBIS),* Vol. 9, No. 3, PP. 85-110.

2. Abu-Musa, Ahmad A. (2005) "The Criteria for Selecting Accounting Software: A Theoretical Framework", *Department of Accounting & Management Information Systems King Fahd University of Petroleum & Minerals*, Dhahran, Saudi Arabia.

3. Aduamoah, M., Yinghua, S., Anomah, S., & Ahmed, F. (2017), "Riding the Waves of Technology: A Proposed Model for the Selection of Appropriate Computerized Accounting Software for Implementation in SMEs in Developing Countries". *Archives of Business Research*, Vol. 5, No. 10, PP.19-40. https://doi.org/10.14738/abr.512.3796.

4. Aggranni, R and Hassanah N, (2018), "The Influence of Application Technology. Firms, Size and Strategy of Operating Performances of Micro, Small and Medium Enterprises", *Journal of Applied Science Research*, Vol. 14, No. 3.

5. Alattar, J.M., Kouhy, R. and Innes, J. (2009), "Management Accounting Information in Micro Enterprises in Gaza", *Journal of Accounting and Organizational Change*, Vol. 5, No. 1 , PP. 81-107.

6. Al-Hintawi, Mohammed Youssef, (2001), *"Accounting Information Systems",* Dar Wael for Publishing and Distribution, Amman/Jordan, PP. 41-52.

7. Alsaaty, F. M. (2012). The cycle of births and deaths of U.S. employer micro firms. *Journal of Management and Marketing Research*, No. 11, PP. 1-12. http://www.aabri.com/jmmr.html.

8. Andersen, J. and Samuelsson, J. (2016), "Resource organization and firm performance: how entrepreneurial orientation and management accounting influence the profitability of growing and non-growing SMEs", *International Journal of Entrepreneurial Behavior and Research*, Vol. 22, No. 4, PP. 466-484.

9. Armitage, H.M., Webb, A. and Glynn, J. (2016), "The use of management accounting techniques by small and medium-sized enterprises: a field study of Canadian and Australian practice", *Accounting Perspectives*, Vol. 15, No. 1, PP. 31-69.

10. Ayyagari, M., Beck, T. & Demirguc-Kunt, A. (2007), "Small and medium enterprises across the globe", *Small Business Economics, [J]*, Vol. 29, No. 4, PP. 415-434.

11. Berrone, P., Gertel, H., Giuliodori, R., Bernard, L. and Meiners, E. (2014), "Determinants of performance in MEs: preliminary evidence from Argentina", *Journal of Small Business Management*, Vol. 52, No. 3, PP. 477-500.

12. Carpenter, C. G., Le Blanc, L. A., & Robson, G. S. (2005). Fixed Asset Accounting

Software Evaluation: A Structured Methodology for The Mid-Market Firm. *Review of Business Information Systems (RBIS),* Vol. 9, No. 2, PP. 55-68.

13. Chen, C. K. and Hamdan M. (2014), "An Exploratory Study of Information Technology Adoption by SMEs in Brunei Darussalam", *World J. Soc. Sci.,* Vol. 4, No. 2, PP. 186-196.

14. Da Silva Laureano, R.M., Cardoso Vieira Machado, M.J. and da Silva Laureano, L.M. (2016), "Maturity in management accounting exploratory study in Portuguese SME", *Society and Economy in Central and Eastern Europe*, Vol. 38, No. 2, PP. 139-156.

15. Danielson, M. and Scott, J. (2006), "The capital budgeting decisions of small businesses", *Journal of Applied Finance*, Vol. 16, No. 2, PP. 45-56.

16. Davila, A. and Foster, G. (2005), "Management accounting systems adoption decisions: evidence and performance implications from early-stage/startup companies", *The Accounting Review*, Vol. 80, No. 4, PP. 1039-1068.

17. Davis, F. D. 1989, "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology," *MIS Q.*, Vol. 13, No. 3, P. 319.

18. Donner, J. and Escobari, M. X. (2010), "A review of evidence on mobile use by micro and small enterprises in developing countries", *Journal of International Development*, No. 22, PP. 641-658. doi: 10.1002/jid.1717

    http://www3.interscience.wiley.com/journal/123566679/abstract

19. Dykiy, A. P. and Dovgal, Yu. D. (2008), "Peculiarities of choosing computer software for accounting computerization at large-scale enterprises". *The Journal of Zhytomyr State Technological University. Series: Economics*, Vol. 46, No. 4, PP. 61-70.

20. Dyt, R. and Halabi, A.K. (2007), "Empirical evidence examining the accounting information systems and accounting reports of small and micro business in Australia", *Small Enterprise Research*, Vol. 15, No. 2, PP. 1-9.

21. Emblad, Stefan (2023), *The Palestinian Economy Remains Vulnerable Amid Socio-Political Instability*, https://www.worldbank.org/en/news/press-release/2023/05/02/the-palestinian-economy-remains-vulnerable-amid-socio-political-instability.

22. Fitriyah, H. (2006), "Analisis Faktor–faktor yang Mempengaruhi Penggunaan Informasi Akuntansi pada Usaha Menengah Kabupaten Sidoarjo". *Tesis. Universitas Airlangga*, Surabaya.

23. Fordham, D. and Hamilton, C. (2019), "Accounting information technology in small businesses: an inquiry", *Journal of Information Systems,* Vol. 33, No. 2, PP. 63-75.

24. George, D. and Mallery, P. (2003), *SPSS for Windows Steps by Steps: A Simple Guide and Reference 11.0 update*, fourth ed., Allyn & Bacon, Boston.

25. Gherhes, C., Williams, N., Vorley, T. A. C. and Vasconcelos, A.C. (2016), "Distinguishing microbusinesses from SMEs: a systematic review of growth constraints", *Journal of Small Business and Enterprise Development*, Vol. 23, No. 4, PP. 939-963.

26. Grabchuk, I. L. and Lyakhovich, G. I. (2017), "Software for Conducting Accounting: Problems of Choice and Use in the Course of Outsourcing". *Problems of Theory and Methodology of Accounting, Control and Analysis*, Vol. 3, No. 38, PP. 32-36.

27. Grande, E., Estebanez, R. and Colomina, C. (2011), "The impact of accounting information systems (AIS) on performance measures: empirical evidence in Spanish SMEs", *International Journal of Digital Accounting Research*, No. 11, PP. 25-43.

28. Greenbank, P. (2000), "Training micro-business owner-managers: a challenge to current approaches", *Journal of European Industrial Training,* Vol. 24, No. 7, PP. 403-411.

29. Grinko, A. P. (2009), "Criteria for selecting software for automated fixed assets accounting system", *Economic Strategy and Perspectives of the Development of Trade and Services Sphere*, Vol. 2, No. 10, PP. 187-193.

30. Hanafi, H., Indriani, R., Midiastuty, P., Vika Fitranita, V., (2021), "Impact of accounting information system on the financial performances of micro, small, and medium-sized enterprises in Bengkulu City", *JEMA: Jurnal Ilmiah Bidang Akuntansi dan Manajemen*, Vol. 18, No. 2, PP. 236-246. http://dx.doi.org/10.31106/jema.v18i2.12530.

31. Harash, E., Al-Timimi, S. and Radhi, A. H. (2014), "The Influence of Accounting Information Systems (AIS) on Performance of Small and Medium Enterprises (SMEs) in Iraq", *Journal of Business & Management*, Vol. 3, No. 4, PP. 48-57.

32. Heikkilä, T. S. & Sääksjärvi, M. (1991) "Success of Software Packages in Small Businesses: An Exploratory Study", *European Journal of Information Systems*, Vol. 1, No. 3, PP. 159-169.

33. Hiebl, M. and Richter, F. (2018), "Response rates in management accounting survey research", *Journal of Management Accounting Research,* Vol. 30, No. 2, PP. 59-79.

34. https://doi.org/10.19030/rbis.v9i3.4456.

35. Intuit Inc. (2018), *QuickBooks small business user guide: Starting out with QuickBooks online.* Intuit Australia.

36. Jadhav, A. S., & Sonar, R. M. (2011). Framework for evaluation and selection of the software packages: A hybrid knowledge-based system approach. *Journal of Systems and Software*, Vol. 84, No. 8, PP. 1394-1407.

37. Jankala, S. and Silvola, H. (2012), "Lagging effects of the use of activity-based costing on the financial performance of small firms", *Journal of Small Business Management*, Vol. 50, No. 3, PP. 498-523.

38. Kaiser, H.F. (1974), *An index of factorial simplicity*, Psychometrika, Vol. 39, No. 1, PP. 31– 36.

39. Kanyanga, F. A. (2022), "Computerized Accounting Systems and Financial Performance among firms in Kenya". *African Journal of Commercial Studies*, Vol. 1, No. 1, PP. 28-35. https://ijcsacademia.com/index.php/journal/article/view/4.

40. Kharuddin, S.; Ashhari, Z. M. and Nassir, A. M. (2010), "Information System and Firms' Performance: The Case of Malaysian Small Medium Enterprises", *International Business Research*, Vol. 3, No. 4, PP. 28-35; October.

41. Kolumbet, O. P. (2014), "Implementation of computerized accounting information systems: features and sequence of implementation". *Accounting, Analysis and Audit: Problems of Theory, Methodology, Organization: Collection of Scientific Works*, No. 2, PP. 107-115.

42. Lanlan, Z., Ahmi, A. and Popoola, O. M. J.2019(), "Perceived Ease of Use, Perceived Usefulness and the Usage of Computerized Accounting Systems: A Performance of Micro and Small Enterprises (MSEs) in China", *International Journal of Recent Technology and Engineering (IJRTE)*, Vol. 8, NO. 2S2, PP. 324-331.

43. Lavia, L. and Hiebl, M. (2015), "Management accounting in small and medium-sized enterprises: current knowledge and avenues for further research", *Journal of Management Accounting Research*, Vol. 27, No. 1, PP. 81-119.

44. Liberman-Yaconi, L., Hooper, T. and Hutchings, K. (2010), "Toward a model of understanding strategic decision-making in micro-firms: exploring the Australian information technology sector", *Journal of Small Business Management*, Vol. 48, No. 1, PP. 70-95.

45. Marriott, N. and Marriott, P. (2000), "Professional accountants and the development of a management accounting service for the small firm: barriers and possibilities", *Management Accounting Research*, Vol. 11, No. 4, PP. 475-492.

46. Martani, D., Veronica, S., Wardhani, R., Farahmita, A. and Tanujaya, E. (2012), "Akuntansi Keuangan Menengah Berbasis PSAK", *Penerbit Salemba Empat*.

47. Maseko, Nelson and Manyani, Onias (2011), "Accounting practices of SMEs in Zimbabwe: An investigative study of record keeping for performance measurement (A case study of Bindura)", *Journal of Accounting and Taxation*, Vol. 3, No. 8, PP. 171-181.

48. Mead, DC. and Leidholm, C. (1998), "The dynamics of micro and small enterprises in developing countries", *World Development,* Vol. 26, No. 1, PP. 61-74.

49. Mehdi Salehi, Dashtbayaz M. L., Bahrami M. and Teymoori E. (2015), "The effect of implementation of accounting information system on efficiency, profitability and productivity of SMEs in Iran", *Banks and Bank Systems*, Vol. 10, No. 3, PP. 79-86.

50. Mitchell, F. and Reid, G.C. (2000), "Editorial. Problems, challenges, and opportunities: the small business as a setting for management accounting research", *Management Accounting Research*, Vol. 11, No. 4, PP. 385-390.

51. Mokodompit, M. and Usman, S. (2020), "Accounting Information System Analysis of Micro to Medium Enterprises", *Proceedings of the 2nd African International Conference on Industrial Engineering and Operations Management Harare*, Zimbabwe.

    http://www.ieomsociety.org/harare2020/papers/715.pdf.

52. Mpofu C. K. and Mathys, W. L. (2011), «Understanding ICT adoption in the small firm sector in Southern Africa», *Journal of Systems and Information Technology,* Vol. 13, No. 2, PP. 179-199. https://doi.org/10.1108/13287261111136007.

53. Muhrtala, O., & Ogundeji, M. G. (2014). Determinates of Accounting Software Choice: An Empirical Approach. *Universal Journal of Accounting and Finance*, Vol. 2, No. 1, PP. 24-31.

54. OECD (2010), *SMEs, Entrepreneurship, and Innovation*, OECD, Paris.

55. Ogah, Idagu Joseph (2013), "An Evaluation of the Relevance of Accounting Systems as a Management Decision Tool in Union Bank of Nigeria Plc, Uyo Branch of Akwa Ibom Ogah", *Greener Journal of Business and Management Business Studies*, Vol. 3, No. 1, PP. 38-45, January

56. Palestine Monetary Authority (2017), *Annual Report.*

57. Palestinian Business Forum, 2014, https://openaid.se/en/activities/SE-0-SE-6-5211005801-PSE-25010.

58. Paul, L. R., and Sadath, L. (2019, December), "Choosing the Right Accounting Software for Organized Retail Environment". *In 2019 International Conference*

on Computational Intelligence and Knowledge Economy (ICCIKE) (PP. 505-510). IEEE).

59. Pulakanam, Venkateswarlu and Suraweera, Theekshana (2010) "Implementing Accounting Software in Small Businesses in New Zealand: An Exploratory Investigation", *Accountancy Business and the Public Interest*, Vol. 9, No. 98.

60. Qaoud, A. M. (2007), "Study and Evaluation of the Electronic Accounting Information Systems in Palestinian Companies: An Empirical Study on Corporate Companies in Gaza Governorates", Unpublished Master's Thesis, The Islamic University of Gaza, PP. 66-71.

61. Qubbaja A. And Talahmeh I. A. (2020), "A Challenge of Accounting Practices on Small and Medium Enterprises (SMEs): Case Study of Palestine", *International Journal of Multidisciplinary Research and Analysis*, Vol. 3, No. 12, PP.310-317.

62. Ramazani, M., Askari, R., & Fazli, E. (2014), "Application of ANP in Evaluating Accounting Softwares based on Accounting Information Systems Characteristics". *Journal of Emerging Trends in Computing and Information Sciences*, Vol. 5, No. 5.

63. Ruiz, T. N. and Collazzo P. (2021), "Determinants of the use of accounting systems in microenterprises: evidence from Chile", *Journal of Accounting in Emerging Economies*, Vol. 11, No. 4, PP.632-650 .

64. Sam, M. F. M., Hoshino Y., and Tahir M. N. H., (2012), "The Adoption of Computerized Accounting System in Small Medium Enterprises in Melaka, Malaysia", *Int. J. Bus. Manag.,* Vol. 7, No. 18, PP.12-25 .

65. Samuelsson, J., Andersen, J., Ljungkvist, T. and Jansson, C. (2016), "Formal accounting planning in SMEs: the influence of family ownership and entrepreneurial orientation", *Journal of Small Business and Enterprise Development*, Vol. 23, No. 3, PP.691-702 .

66. Santos, M.A. and Guzman, L. (2017), "Las microempresas y la reduccion de la pobreza en Jalisco, Mexico*", in Estudios Regionales en Economıa, Poblacion y Desarrollo. Cuadernos de Trabajo de la UACJ*, Universidad Autonoma de Ciudad Juarez, No. 42, PP.3-17 .

67. Sekaran, U. (1992), *Research Methods for Managers*, John Wiley & Sons, Inc., Canada, PP. 250 - 254.

68. Senftlechner, D. and Hiebl, M.R.W. (2015), "Management accounting and management control in family businesses: past accomplishments and future opportunities", *Journal of Accounting and Organizational Change*, Vol. 11, No. 4, PP.573-606 .

69. Shields, J. and Shelleman, J. (2016), "Management accounting systems in micro-SMEs", *The Journal of Applied Management and Entrepreneurship*, Vol. 21, No. 1, PP.19-31 .

70. Siam, Walid Zakaria (2004), "Evaluating the Effectiveness of Accounting Information Systems in Jordanian Commercial Banks in Light of Technological Development", *a paper presented to the Sixth Professional Scientific Conference (The Accounting Profession in the Service of the Economy),* Amman/Jordan, PP. 24-33.

71. Snodgrass, D. (2005), "Inventory and analysis of donor-sponsored MSE development programs", *Washington, DC: Development Alternatives Inc.*

1. http://www.valuechains.org/dyn/bds/docs/501/USAID%20AMAP%20Invetory%20of%20MSE%20Programs%202005.pdf

72. Sohilauw, M., Nohong, M., & Sylvana, A. (2020), "The relationship between financial literacy, rational financing decision, and financial performance: An empirical study of small and medium enterprises in Makassar", *Jurnal Pengurusan*, No. 59, PP.1-15 .

https://doi.org/10.17576/pengurusan-2020-59-09.

73. Spekle, R. and Widener, S. (2018), "Challenging issues in survey research: discussion and suggestions", *Journal of Management Accounting Research*, Vol. 30, No. 2, PP. 3-21.

74. Subagyo, S., Kumar, V., and Ernestivita, G. (2020), "Entrepreneurial parameters and performance of MSMEs in East Java province of Indonesia". *International Journal of Business Innovation and Research*, Vol. 23, No. 2, PP.267-282 .

75. The Palestinian Central Bureau of Statistics, 2021, https://www.pcbs.gov.ps/default.aspx.

76. Thuan L. D. and Huong T. T. (2019), "Organizational Factors and Quality of Accounting Information System in Vietnam", *GJAT*, Vol. 9, No. 1, PP.49-58 .

77. Topash, N.K (2014), "Evaluation of Efficiency of Accounting Information Systems: A Study on Mobile Telecommunication Companies in Bangladesh", *Global Disclosure of Economics and Business*, Vol. 3, No. 1, PP.40-55 .

78. Tram, N. T. H. and Tuan, L. A. (2019), "Researching the selection of accounting software for small and medium construction enterprises in Ho Chi Minh City". *International Journal of Innovative Science and Research Technology,* Vol. 4, No. 12, PP.418-427 .

79. Van der Stede, W., Young, M. and Chen, C. (2005), "Assessing the quality of

evidence in empirical management research: the case of survey studies", *Accounting, Organizations and Society*, No. 30, PP.655-684 .

80. Wang, B. and J. Ha-Brookshire (2018), "Perceived Usefulness and Perceived Ease of Use of New Technologies Described by Chinese Textile and Apparel Firm Owners and Managers", *International Textile and Apparel Association (ITAA) Annual Conference Proceedings*, PP. 1-3.

81. Wang, D. H., and Huynh, Q. L. (2013), "Effects of Environmental Uncertainty on Computerized Accounting System Adoption and Firm Performance", *International Journal of Humanities and Applied Sciences (IJHAS)*, Vol. 2, No. 1, PP.13-21 .

82. Wen, J., Kobayashi, H., Matsumura, I., Mohamed, E., and Huang, J., (2012), "Adoption of Accounting Software by Agro Based Enterprises in China - The Casee of Medium and Small Scale Privately Owned Enterprises, State-Owned Farms and Agricultural Cooperatives," *International Journal of Engineering and Technology,* Vol. 2, No. 2, PP.82-99 .

83. Wiklund, J. and Shepherd, D. (2005), "Entrepreneurial orientation and small business performance: a configurational approach", *Journal of Business Venturing,* No. 20, PP. 71-91.

84. Wilkinson, J. W., Cerullo, M. J., Raval, V. and Wong-On-Wing, B. (2000), "*Accounting Information Systems: Essential Concepts and Applications*", New York: John Wiley and Sons.

85. Yürekli, E., & Haşiloğlu, S. B. (2017), "Evaluation of the factors affecting the purchasing decisions of accounting package programs". *Journal of Internet Applications and Management,* Vol. 8, No. 1, PP.47-64 .