Finance and firm characteristics in Tanzania

Abstract
The purpose of this study is to examine the impact of firm-specific characteristics on the accessibility of firm financing in Tanzania using 2013 data from the World Bank enterprise surveys. The results of the study show that firm characteristics in Tanzania determine the type of financing that is used for investment and working capital purposes. Small firms seem to rely more on internal financing as opposed to using bank funds, probably due to their small operations and lack of assets to put up as collateral. The larger firms however find it easier to access bank finance as they are much older in terms of age, have developed good relations with their financial services’ providers and are also able to provide the required collateral to back their lines of credit. It is therefore, recommended that the Government engages the financial market intermediaries to find feasible business financing solutions for all sized firms, especially those owned by locals. This would lead to the much-needed economic growth through investment attraction and employment creation.

Keywords: finance, firm characteristics, Tanzania.
JEL Classification: G20, L25.

Introduction
There is no doubt that the backbone of many developing economies is the small business sector. Firms in this sector are used to stimulate the local economy by providing employment, services and products which are sometimes not viable for larger firms to engage in. However, in order to start or grow any form of business entity, finance is essential. There are various forms of corporate finance sources available to firms, depending on a variety of factors. Finance in the business context, as described by Gitman and Zutter (2012), requires certain money decisions to be made. These decisions include how firms raise money (debt vs equity), how they invest money to generate profits and how they decide whether to reinvest profits or distribute them to investors. For the purposes of this study, it will therefore be important to understand how these decisions guide the actions of the firms which were surveyed. Corporate finance can be used to meet either long-term firm needs (investment) or short-term needs (working capital).

Tanzania is located in Eastern Africa, on the coast of the Indian Ocean, bordered by Kenya and Uganda to the north, Zambia, Malawi and Mozambique to the south, and Rwanda, Burundi and the DRC to the west. The Tanzanian economy is primarily dependent on agriculture, industry and tourism, with the agricultural sector accounting for 27% of the GDP, and 80% of employment (Heritage Foundation, 2014). According to George (2013), Tanzania in 2012 accounted for nearly 2% of the world’s gold production, and was also the world’s only known tanzanite producer; although more recently, large natural gas reserves were discovered. With a population of 49.25 million people, an unemployment rate of 10.70%, a GDP of US$33.23 billion and a GDP growth rate of 7% in 2013, Tanzania remains a low-income country economically participating in the East African Community and SADC blocs (World Bank, 2013).

According to Heritage Foundation (2014), Tanzania attained an economic freedom score of 57.8 (out of 100, on a scale of 1 being least free and 100 being most free), making it the 106th freest economy globally, and was also ranked 15th out of 46 Sub-Saharan African countries in the 2014 Index. With regard to the rule of law, which comprises of both freedom from corruption and property rights, Tanzania scored 28.8 and 30, respectively, confirming that the country is still confronted by challenges within its institutional structures. Of the surveyed firms in Tanzania, access to finance was ranked first out ten business obstacles encountered by firms conducting business in Tanzania by almost 45% (N = 681) of the firms. This was closely followed by the lack of infrastructure in the form of reliable electricity access (N = 699; 44%) and prohibitive tax rates (N = 673; 42%), which were ranked as the second and third business constraints, respectively.

Robb & Wolken (2002) acknowledged that firm size, type and age may influence the financing decisions of firms. According to them, younger firms may desire an injection of working capital for expansion projects but are unlikely to be approved as a result of their limited performance history. As a result, in its infancy, a firm is more likely to depend on internal finance or retained profits to sustain itself. This is because it does not have a track record which financial institutions can use to assess the financial health of the business. Also, smaller firms have less valuable or fewer tangible assets which can be put up as collateral for external finance such as bank loans or lines of credit. It is therefore not surprising that financial constraints were mentioned as the leading hurdle for many of the surveyed firms.
Previous studies on this topic have been predominantly based on U.S. firms, and researchers have applied firm-level data. This study will focus on a low-income country which is a member of both the Southern African Development Community (SADC) and the East African Community (EAC). We therefore want to examine the impact of firm-specific characteristics such as firm size, firm age, ownership structure, and location of the businesses on their access to financing in Tanzania, using data sourced from the World Bank Enterprise Surveys. This is deemed important as sound and appropriate investment policies such as promoting local economic growth thereby reducing unemployment and poverty in Tanzania. The rest of this paper is organized as follows: Section 1 provides a brief literature review on firm characteristics, sources of finance and the financial services sector in Tanzania. This is followed by a description of the data and measurement variables represented in section 2. The descriptive statistics and results are analyzed in Section 3, while conclusions and recommendations thereof will be considered in the final Section.

1. Literature review

Economic theory dictates that the minimization of information and transaction costs are the main roles of financial markets. Work by Schumpeter (1911), Goldsmith (1969) and McKinnon (1973) all help to describe the role of financial systems. Primary functions of financial markets are mainly to facilitate the transfer, management and diversification of risk; the allocation of capital; the ex-ante production of information about real investments and the allocation of capital; the monitoring of investments; mobilization and pooling of savings, creation of liquidity, and the easing of the trade of goods, services and financial contracts (UNECA, 2008; Levine, 2005). The financial markets therefore include stock markets, bond markets, foreign exchange markets, money markets, commodity markets, derivatives markets and future markets.

Business success is dependent on the ability to access the required financing. Entrepreneurship and finance literature notably emphasize the existence of financial hurdles, implying that firms cannot raise external finance to fund their desired investments (e.g., Evans and Jovanovic, 1989; Fazzari et al., 1988). The evidence of firm financing is twofold: that for well-established, older businesses as well as for start-up ventures. Hisrich and Brush (1986) identified access to capital and mobilization of start-up financial resources as being the greatest barriers to business formation and success. Similarly, Lee and Denslow (2004) noted that financing is problematic during the firm’s early stages.

1.1. Firm characteristics influencing access to finance. There are various firm-specific features which determine access to finance. As already alluded to by Robb and Wolken (2002), the size, type and age of a firm are important financing determinants. Depending on what variable is used to measure the size of the firm, generally, the larger the firm, the easier it is to access credit. If firm size is measured in terms of assets, borrowers are more comfortable with loaning funds to firms with high-value assets as in the event of default, these assets can be seized and sold to offset the outstanding debt. In this study however, firm size will be measured using the number of employees, due to data paucity regarding firm assets. Firm age is also a critical determinant of access to finance. The more mature the firm, the longer the performance history for borrowers to use in credit assessments, hence the higher the likelihood of getting loan application approval. Younger firms may therefore not qualify for bank lines of credit because of their limited performance history. A study by Makoni and Ngcobo (2014) found that it was easier for older, foreign-owned firms in Zimbabwe to access bank credit because they had the capacity, collateral and performance trade record to support their applications. This was also confirmed by the findings of Robb and Wolken (2002) where they found that larger, mature firms were more likely to have outstanding debt than smaller ones. Another factor which is sometimes overlooked is the firm’s own credit history, which is often difficult to distinguish from that of the owner/director. Hence, if the owner’s personal finances and credit history are negative, this could have a profound bearing on the likelihood of the firm not being granted credit lines. Earlier studies by Berger and Udell (1995) also highlighted the importance of long-term relationships with bankers as a determinant for accessing finance. Such relationships and networks are believed to give borrowers a better understanding of the business requiring funding and therefore base their decisions on how long and how well the firm has conducted its transaction bank account.

1.2. Sources of finance. There are various sources of corporate funding available to business entities. Generally, a firm can utilize internal or external sources of funding to finance its operations and growth. The decision as to which type of funding to use is determined by a number of factors such as the type of firm (e.g. sole proprietor, partnership, listed company), the size of the firm, the age of the firm, the stage in the business life cycle that firm has reached, the level of financial market development of the economy that the firm is operating in, amongst others.
Corporate finance can either be short-term in nature, to meet operational working capital needs; or it can be long-term for investment purposes. Short-term funds can be in the form of excess cash in the firm’s own bank account, a short-term bank loan or overdraft as well as supplier credit (i.e. buying inventory on favourable credit terms). Long-term capital can be used to invest in assets which will enhance the overall return to the business (Gitman and Zutter, 2012). Such assets are usually income-generating to the business operations and include machinery, equipment, vehicles and even buildings. Long-term capital can either be in the form of debt or equity. While all firms would like to enjoy a capital structure which has a mix of debt and equity, it is sometimes almost impossible to achieve this for small firms operating in underdeveloped financial markets. The availability and cost of debt and equity is highly dependent on the degree of local financial market development. The financial markets include the money and capital markets. Various institutions and players are found in these markets to bring together savers and borrowers. The predominant money market players are financial institutions such as commercial and investment banks. The best known capital market player is the stock exchange. Most economies in the underdeveloped economies do not have an active bond market. However, where one does exist, it is dominated by the Government. Firms therefore base their financing options by taking into consideration all of the above.

Form the supply-side of finance, banks and other lenders conduct thorough creditworthiness assessments of applicants. One of the frameworks used to carry out these assessments is referred to as the 5Cs of credit (Gitman and Zutter, 2012), which is an examination of a potential borrower’s character, capacity, capital, collateral and conditions. Each of these factors has a bearing on the applicant’s past record of meeting financial debt obligations and whether they can generate sufficient income to cover the new debt repayments. The capital aspect gives an indication of the borrower’s inclination towards risk and committing their own resources to funding the business. Hence, the capital structure of the applying firm between debt and equity is important. If an applicant is already financing their business using debt, any further debt would be risky to both the lender and the borrower alike. Lenders prefer situations where the firm owner is willing to commit more of their own resources in the form of owners’ equity, and lenders would then step in to provide an additional top-up amount for a specified period of time. In the event of the unknown, collateral is often requested to safeguard against any eventualities. The availability of fixed assets, and the willingness to cede these to lenders to back the loan, gives corporate finance lenders the peace of mind that should the borrower be unable to repay the loan, they can sell the cede assets to recover as much of what is owed to them as is possible. It is for this reason that the required collateral value is often much higher than the loan value itself, sometimes up to almost double in value. Lastly, no country’s economy functions in total isolation. Economic and industry trends for specific transactions, for example, the interest rate charged to manufacturing firms may differ from that charged to firms in the services industry, are found globally too. Lenders are generally guided by what their competitors are doing in the market. If one lender makes borrowing easier for some sectors, then other lenders may be forced to follow suit so as not to lose their clientele.

The above principles aid the credit assessment processes of potential borrowers from the lenders’ perspective. They provide a basis on which to begin, although the final decision to lend money is not always solely based on this framework. There are other additional risk factors which lenders may choose to use to further screen borrowers, but will not be considered for this study.

1.3. The financial services sector in Tanzania.

According to the Bank of Tanzania (2011), Tanzania’s financial liberalization reforms are two-fold; pre- and post-1991. Pre-1991, the financial sector was predominantly under state control, characterized by high monopolistic tendencies. The private sector on the other hand, was discriminated against, through a series of preferential interest rates, thereby rendering private banks useless in terms of economic contribution (Bank of Tanzania, 2011). An over-involvement in the financial services sector by Government saw banking sector credit to government rise from 80% in 1973, to well over 93% in 1987. This brought about high macroeconomic instability, double-digit inflation and finally a decision in 1986 to institute financial reforms to bring onboard the private sector to be a key player in the Tanzanian domestic economic development.

The post-1991 phase saw the undertaking of active and aggressive financial sector reforms to complement the 1986 private sector reforms. Amongst the key legislative amendments made, there were the Banking and Financial Institutions Act (1991) which reintroduced competitive banking, previously abolished in 1967; the Foreign Exchange Act (1992) liberalized external trade and foreign exchange trading; while the Capital Market Act (1996) paved the way for the establishment of the Dar Es Salaam Stock Exchange in 1998. The Bank of Tanzania itself also channelled its energy towards price stability to enhance economic growth. As a result, new merchant banks, commercial banks, bureau de change, insurance firms and a stock market have entered the financial services market (TanzaniaInvest,
2012). These financial sector reforms, together with other Government reforms, have brought dignity and stability to the Tanzanian economy. Inflation declined to single digits after being as high as 30% in the 1980s; economic growth has been stable at 7% per annum since 2000; the economy has diversified from agriculture to include other sectors such as trade and services, tourism and transport, bringing much-needed relief to the domestic economy (Bank of Tanzania, 2011).

The Dar Es Salaam Stock Exchange (DSE) currently has 13 domestic listed firms, and a further 7 cross-listed companies, mainly of Kenyan origin. Of these 20 total listed firms, six are commercial banks and other firms directly involved in the financial services sector. This is a confidence booster that banks see the need to raise equity funds, while also improving their visibility to customers and potential investors. Current market capitalization stands at Tanzanian Shilling 23.144 billion TZS (equivalent of US$13.885 million), (DSE, 2014). The DSE operates an Automated Trading System (ATS), and offers various tax incentives to both security issuers and investors. With regard to banking institutions, as at 31 December 2013, there were 53 banking institutions comprising of thirty-four commercial banks, twelve community banks, five financial institutions and two deposit-taking microfinance institutions; all under the regulatory authority and supervision of the Bank of Tanzania. In terms of ownership, of these fifty-three banking institutions, five were state-owned, and the other 43 were privately-owned entities. In addition to this, twenty-seven of the 53 institutions were domestically-owned, while the remaining 26 were owned by majority foreign shareholders (Bank of Tanzania, 2013).

2. Methodology

The World Bank’s 2013 Enterprise Surveys on firms in the manufacturing, services, transport and construction sectors in Tanzania is the main source of data for this study. These firms were drawn from the five major cities in Tanzania, being Arusha, Dar Es Salaam, Mbeya, Mwanza and Zanzibar. The industrial sectors covered in this study include food, textiles and garment, manufacturing and retail. Firm-level variables selected include the firm age, the size of the firm as measured by the number of permanent employees, the ownership structure and access to finance.

The empirical literature suggests that firm size matters, especially where foreign ownership is concerned. Descriptive statistics on the sampled firms in this study show that most of the firms that regardless the size of the firm – foreign ownership of firms in Tanzania is highly negligible. There is barely foreign investment in the firms included in the survey. This may be indicative of the fact that Tanzania FDI inflow levels are significantly low, despite of the countries’ potential to attract foreign investors, especially in mining and tourism. Nonetheless, we will still assess whether firms in Tanzania conform to the assumption that larger firms have better access to local credit facilities and are able to finance various expansion projects than smaller firms.

Another variable that we have also decided to include is firm age. Our argument is that banks may be more inclined to lend to older firms because they have a longer track record in business which can be used to assess its ability to repay the loan. The number of years they have been in existence enables them to have a better knowledge and appreciation of the importance of banking relationships and networks than younger firms. Robb and Wolken (2002) concurred that younger firms require additional working capital to expand and grow their businesses but are unlikely to be approved for bank lines of credit due to their limited performance history. Although it may be true that firms gain a reputation and established networks with the passage of years, younger firms can also get the required capabilities through using short cut mechanisms such as hiring highly experienced and competent managers. The latter can also be expedited through FDI wherein backward linkages and innovation and technology form part of the package. Knowledgeable senior managerial staff is usually brought in to oversee the FDI project.

Following from the empirical literature, and the objectives of the study, the null and alternate hypotheses were postulated as:

\[ H_0: \text{The smaller and the younger the firm, the lower} \]
\[ H_1: \text{the larger and the older the firm, the higher} \]

the access to bank credit in Tanzania, hence the greater dependence on internal financial resources.

\[ H_0: \text{the larger and the older the firm, the higher} \]
\[ H_1: \text{the smaller and the younger the firm, the lower} \]

the access to bank credit in Tanzania, hence the lower the dependence on internal financial resources.

The data of the study was analyzed and subjected to descriptive statistical analysis, including frequencies, and the results presented below.

3. Analysis of findings

A snapshot of Tanzania’s finance-related statistics for 2013 in relation to other countries in the Sub-Saharan region, as well as all countries is captured in Table 1 below.

<table>
<thead>
<tr>
<th></th>
<th>Tanzania</th>
<th>Sub-Saharan Africa</th>
<th>All countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of firms with cheque/savings account</td>
<td>72.5</td>
<td>87.6</td>
<td>83.8</td>
</tr>
<tr>
<td>Percentage of firms with a bank loan/line of credit</td>
<td>15.1</td>
<td>23.7</td>
<td>35.5</td>
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Table 1. Finance-related statistics for Tanzania, 2013
Table 2 (cont.). Finance-related statistics for Tanzania, 2013

<table>
<thead>
<tr>
<th></th>
<th>Tanzania</th>
<th>Sub-Saharan Africa</th>
<th>All countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion of loans requiring collateral</td>
<td>96.0</td>
<td>79.4</td>
<td>77.7</td>
</tr>
<tr>
<td>Value of loan required as collateral (% of loan amount)</td>
<td>263.8</td>
<td>171.0</td>
<td>190.3</td>
</tr>
<tr>
<td>Percentage of firms whose recent loan applications were rejected</td>
<td>4.2</td>
<td>14.9</td>
<td>12.4</td>
</tr>
<tr>
<td>Percentage of firms using working capital external financing (%)</td>
<td>13.9</td>
<td>23.5</td>
<td>31.0</td>
</tr>
<tr>
<td>Percentage of firms identifying finance as a major constraint</td>
<td>44.8</td>
<td>41.9</td>
<td>28.8</td>
</tr>
<tr>
<td>Firm age (years)</td>
<td>13.2</td>
<td>14.0</td>
<td>15.8</td>
</tr>
<tr>
<td>Firm size (average number of permanent fulltime employees)</td>
<td>15.8</td>
<td>27.6</td>
<td>33.8</td>
</tr>
<tr>
<td>Domestic ownership</td>
<td>95.5</td>
<td>79.8</td>
<td>88.2</td>
</tr>
<tr>
<td>10% or more foreign ownership</td>
<td>2.7</td>
<td>14.9</td>
<td>9.2</td>
</tr>
</tbody>
</table>


From the table above, it can be assessed that there are many firms in Tanzania with a bank account, although the number is slightly lower in comparison to the SSA region and the world. This is due to the higher formality of business incorporations and tighter tax authority regulation in the country. The Tanzanian economy is primarily agro-based. However, tourism also plays a significant role in the locations along the coast. Most tourism activities as well as fishing are cash-based, therefore partially explaining why only 15% of the surveyed firms had bank loans at the time the survey was conducted. Other possible reasons for this low bank loan appetite are the size of the firm, the industrial sector concentration and the collateral requirement on bank loans. 96% of Tanzanian firms that acquired loans had to cede collateral worth up to 264% the value of the loan acquired, compared to only 171% in SSA and 190% for other countries in the world, thereby making borrowing an unviable option. However, the use of internal financing was a very popular option for capital investment purposes, but using external sources to finance working capital needs was not taken up at a significant rate.

Below in Figure 1 is a representation of the corporate finance investment options available and used by Tanzanian firms, and how these fare in comparison with firms in Sub-Saharan Africa, as well as other low income countries.

![Corporate finance investment options](image)

Source: Author’s calculations based on data from World Bank Enterprise Surveys (2013).

Fig. 1. Tanzania corporate finance investment options (2013)

From Figure 1 above, it can be deduced that internal finance as growth investment capital is the most used option, not only in Tanzania (83.2%) but also the SSA region (78.2%) and in similar low income countries (80.5%). This can be attributed to the fact that internal finance is the cheapest option, and is considered a good sign by prospective investors as it maximizes shareholder wealth without diluting current portfolios. All the other available financing options are not viable for domestic and regional firms, either, as they all fall under the 10% threshold. Equity finance specifically is expected to be significantly low as the domestic financial markets in Tanzania are neither deep nor broad, with only twenty listed companies in total on the Dar Es Salaam Stock Exchange.

In terms of firm characteristics, Tanzania, on average, had firms the same age as those for the SSA region, but a much smaller firm size averaging 16 fulltime, permanent employees compared to 28 in other SSA countries. The ownership structure of the surveyed firms in Tanzania was interesting as the country has almost exclusive domestic ownership, with 96% of the
surveyed firms being domestic-owned and only 2.7% having foreign ownership of 10% or more (FDI), compared to SSA regional averages of 80%, and 15%, respectively. With the Tanzanian Government continuously liberalizing its economy, the ownership structure could in the coming few decades change quite significantly as more foreign direct investment (FDI) enters the country to undertake major projects of the mining of gold and natural gas. At present, Tanzanian infrastructure is poor because the Government has spread itself thin and is unable to maintain basic infrastructure of roads and electricity.

In considering finance, it is important to bear in mind the 5Cs of credit as raised in empirical literature. Results in Table 2 above show that firm age tends to play a role in the accessibility of finance. It was found that younger firms did not consider finance as a major obstacle to their business operations. This is also supported by the fact that small-sized firms had a line of credit and financed up to almost 89% of their investments using internally-generated funds. This is further evidenced by the higher loan application rejection rate of younger, smaller firms. According to the World Bank’s Enterprise Surveys (2013), a high dependence on internal funds is an indication of inefficient financial intermediation, and this could be equally applicable in Tanzania.

### Conclusions and recommendations

The primary objective of this study was to examine the role played by firm characteristics in accessing finance. Results of this study highlight that the main firm-specific characteristics in Tanzania that determine access to finance are the size and age of the firm. Based on the results, it can therefore be concluded that the age of the firm has a significant effect on the accessing of bank lines of credit by firms in Tanzania. Younger firms do not perceive finance to be a major hurdle in the conducting of business in Tanzania, due to the nature of economic activities undertaken, mainly agriculture (especially fishing) and tourism. These are usually small, family-run businesses and as such, resort to internal finance for working and investment capital needs. Also, the older and the larger the firm (based on number of permanent employees), the lower the likelihood that it will utilize internal financial resources for investment purposes as it has greater access to bank loans and other alternative sources of funding. Older firms also enjoy the benefits of having established good networks and relationships with their bankers and funders over the years.

It is therefore, essential for the Tanzanian Government, together with the financial services sector, to find affordable alternatives to commercial and investment bank loans and lines of credit to assist the smaller, younger domestic firms to capitalize and grow their businesses, without facing deterrent interest rates and absurd collateral demands. The Government, can through the Central Bank, channel cheaper funds for investing in domestic small and medium enterprises. This will encourage the small domestic firms to create further employment, thereby contributing to the country’s economic growth. Also, capacity-building training programs can be initiated through Non-Government Organizations wherein managers and owners of these small firms are given information and training on available financing opportunities besides the expensive bank loans. Commercial and investment banks also need to be brought on-board to support and stimulate the growth of locally-owned firms by seeking other methods of assessing and applying the 5Cs of credit, the loan rejection rate for domestic firms, for example, could be reduced by decreasing the loan amount applied for if the reason for the rejection is said to be insufficient collateral. Improving access to finance for domestic firms will provide a conducive environment that promotes employment creation and therefore economic growth. In light of this, it is therefore recommended that the Tanzanian Government and its private financial sector comes up with favorable poli-

### Table 3. Tanzania finance and other firm characteristics, 2013

<table>
<thead>
<tr>
<th>Firm size</th>
<th>Firm size (number of fulltime permanent employees)</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of firms with bank loan/ line of credit</td>
<td>7.7 30.9 158.7</td>
</tr>
<tr>
<td>% of loans requiring collateral</td>
<td>96.7 95.1 90.3</td>
</tr>
<tr>
<td>% of firms not needing a loan</td>
<td>24.4 33.6 53.9</td>
</tr>
<tr>
<td>% of firms whose recent loan application was rejected</td>
<td>5.0 2.5 0</td>
</tr>
<tr>
<td>Proportion of investments financed internally (%)</td>
<td>88.7 75.5 49.5</td>
</tr>
<tr>
<td>Proportion of investments financed using banks (%)</td>
<td>2.9 3.5 11.4</td>
</tr>
<tr>
<td>Proportion of investments financed using equity (%)</td>
<td>4.6 9.4 19.6</td>
</tr>
<tr>
<td>% of firms requiring collateral</td>
<td>0.1 2.3 5.7</td>
</tr>
<tr>
<td>Proportion of investments financed using trade credit (%)</td>
<td>43.1 50.2 56.5</td>
</tr>
<tr>
<td>Firm age (years)</td>
<td>14.7 18.6</td>
</tr>
<tr>
<td>Firm size (number of fulltime permanent employees)</td>
<td>7.7 30.9 158.7</td>
</tr>
</tbody>
</table>

cies that will promote economic growth through stimulation of domestic firms, irrespective of their age, size and industrial sector, as well as the attraction of FDI.

The current study was focused specifically on only one country in Africa. Future studies can be conducted where in a cross-country analysis can give a more detailed overview of the effect that firm structure has on access to finance. Also, even if future studies adopt a case study approach, the time series used could be longer, thereby overcoming the limitation of a snapshot analysis, as was the case in the current study.

References