Chapter 10
FES ComP Spreadsheet as a Teaching and Learning Tool for Financial Analysis Courses

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Abstract
Over the years, the spreadsheet is increasingly recognized as a useful teaching and learning tool to enhance student learning of discipline-content knowledge as well as enhancing skills that will be beneficial for their future careers. Eventhough spreadsheets are widely used in the industry for financial and statistical calculations, at the university level, most students are still using traditional methods (pen and calculators) to do calculation. This could cause errors and the students would need to spend lots of time to complete the calculations. In order to solve these problems, the researchers in this project have created the FES ComP spreadsheet. Fast and Easy Spreadsheet for Analyzing Company’s Performance (FES ComP) is a spreadsheet that was created using Microsoft Excel to assist users to perform company financial analysis. It is a tool that is easy to use and is suitable for students in higher education institutions for their finance and accounting self-exercise and assignments. The users only need basic knowledge of finance and accounting in order to use FES ComP. The uniqueness of FES ComP is that it has four popular types of company financial analysis tools; namely financial ratios, common size, year-to-year change and index number trend analysis in a single spreadsheet. The benefits of using FES ComP as a learning and teaching tool are it is easy to use, it can easily construct related tables and graphs, solves tedious and repetitive calculations, it is fast and saves time and it can be used widely in the classroom for many courses.

Keywords: financial analysis, spreadsheet, students’ skill, teaching and learning tool, finance and accounting

Introduction
According to Leong and Cheong (2008) nowadays, spreadsheet plays an important role in the corporate world and is widely used for business modeling, analysis, and decision support. Based on the information and feedback provided by the undergraduates social sciences students (business, accountancy and finance ) doing internships in all business functional areas and also the employers from the same areas, Excel skills is considered as the most invaluable and that corporate recruiters demand spreadsheet skills when hiring fresh graduates (Timothy Kyng, Tickle, & Wood, 2013; Tickle, Kynga, & Wood, 2014).

Therefore, it is worthwhile to investigate how well spreadsheets are incorporated into management education and in what ways we can do better. Traditionally (and this is largely still true) most university undergraduate programs teach foundational courses in statistics, calculus, and computer programming; their main purpose is to equip undergraduates with the ability to analyze and solve problems.

In the case of undergraduate program in UiTM, the syllabus of financial analysis courses namely Company Analysis and Financial Statement Analysis, students are required to accomplish an assignment on the financial performance of the company. Students have to calculate financial ratios and also convert the basic financial statements into common size analysis and comparative analysis to support the discussion. Currently, students prepare the calculation and conversion manually using calculator since there is no rules stated in the financial analysis syllabus that required them to use spreadsheet. The problem with this current situation is many students have wrongly calculated the financial ratios and they spend lots of time to complete the assignment.

At present, there is no specific spreadsheet that is used by undergraduate students in UiTM systems in analyzing company’s performance since it is not compulsory in the financial analysis syllabus that requires students to do so. In order to solve the wrongly calculated ratios by students and also to save time, the researchers develope FES ComP spreadsheet to be used as a solution to this problem and also to meet the expected program outcomes; able
to apply systematic approach in solving business problem and able to use appropriate methodologies in gathering and analyzing information pertinent to decision making. Mays (2015) who used spreadsheets in business mathematics in teaching business math course found significant correlation between the spreadsheet assignments and actual world applications and that they find meaning in completing coursework materials. In earlier study, according to Baker and Sudgen Baker and Sugden (2007) the use of spreadsheets in the teaching ever since it was introduced in 1979, has shown that the use of spreadsheet in teaching mathematics has resulted better results in the course work. Whilst data analysis skills using spreadsheet gradually growing in value to employers (Timothy Kyng & Taylor, 2008; Read & Baston, 1999), the development and use of applied spreadsheet assignments should continue to be highlighted.

**Fast and Easy Spreadsheet for Analyzing Company’s Performance (FES ComP)**

FES ComP is a spreadsheet that created using Microsoft Excel to help users to analyze the company’s financial performance. There are four popular types of financial analysis tools that generated simultaneously by FES ComP; namely financial ratios, common size analysis, year-to-year analysis and index number trend analysis.

![Fig. 1 FES ComP main menu](image)

<table>
<thead>
<tr>
<th>Table 1 FES ComP</th>
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<tbody>
<tr>
<td><strong>Financial Statements / Analysis</strong></td>
</tr>
<tr>
<td>Balance sheet</td>
</tr>
<tr>
<td>Income statement</td>
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<tr>
<td><strong>Financial Ratios</strong></td>
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<tr>
<td><strong>Common size analysis</strong></td>
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<td><strong>Year-to-year analysis</strong></td>
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<td><strong>Index number trend analysis</strong></td>
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The users of FES ComP only need to understand the basic financial statements namely balance sheet and income statement. They can use the FES Comp to improve their research skills and analysis while they are working on studies and reports. What they need is the financial data of the selected companies relating to the balance sheet and income statement, which they can obtain from the company’s website or any financial databases like Osiris, Datastream, Bloomberg, Factset and other databases. Some of these databases are free and some are paid.

FES ComP will process all the four types of financial analysis once after all the financial data entry. Then, the users simply need to press or click the cursor on the desired menu to get the required output as described in Table 1 above. Finally, the users of FES ComP can copy and paste the tables and charts available in the spreadsheet into their report. The example of the output are shown as below (Fig. 2).

Fig. 2 Example outputs of FES ComP

**Conclusion**

The spreadsheet is a useful teaching tool that can be used by academics who teach quantitative courses such as mathematics, finance and accounting where the commercial world requires strong analytical skills and a better spreadsheet skills. FES ComP spreadsheet can provide to almost any problem involving numbers or formulas, and very strong for repetitive data manipulation such as preparing financial statement analysis. The association that students reported between the FES ComP results and real financial statements data is important. It is where the students able to link between classroom material and application and helped them in finalizing their coursework. At the initial stage, FES ComP will be introduced as a teaching and learning tool for financial analysis courses in UiTM Terengganu. It is hoped that the cheaper, faster and user friendly of the FES ComP will increase motivation and participation of students in the courses taught. Also, at the same time can enhanced the learning process and will equip graduates with appropriate skills and fulfill the requirements of the market.

**References**


