

## **ANATEKS: An eContent learning for ‘Technical Analysis’**

**Amirudin Mohd Nor<sup>1</sup>, Mohd Jefary Jantan<sup>2</sup>, Noor Adriana Abu Zarin<sup>3</sup>,  
Izzah Nabihah Ahmad Marzuki<sup>4</sup> and Nurrabiatul Adawiyah Halim<sup>5</sup>**

Faculty of Business & Management, Universiti Teknologi MARA, Melaka, Malaysia<sup>1</sup>  
amirudinmohdnor@gmail.com

Tun Abdul Razak Library, Universiti Teknologi MARA, Melaka, Malaysia<sup>2</sup>  
jeff@uitm.edu.my

Faculty of Business & Management, Universiti Teknologi MARA, Melaka, Malaysia<sup>3</sup>  
nradrna97@gmail.com

Faculty of Business & Management, Universiti Teknologi MARA, Melaka, Malaysia<sup>4</sup>  
Izzah.marzuki@yahoo.com

Faculty of Business & Management, Universiti Teknologi MARA, Melaka, Malaysia<sup>5</sup>  
ichizenaoi@gmail.com

### **ABSTRACT**

‘Technical analysis’, a branch of stock market study is a popular and heavily used technique in stock trading. Few knowledge and educational materials have been produced to assist beginners in this industry. The present learning tools, named ANATEKS, a short form for ‘*Asas Analisis Teknikal Saham*’ was developed as an eContent educational platform catering for the first-time learners in technical analysis. The platform provides introductory information on the subjects in a compact duration via short videos. Using smartphones and computers, the materials are accessible through ANATEKS website linked to youtube. Such medium complements the existing conventional learning via lectures and book reading. It helps to boost learning experience in a convenient, timeless, fun and fast way. The potential target includes the students of Universiti Teknologi MARA (UiTM) Melaka enrolled in the technical analysis course and the general public who is the first timer in Bursa Malaysia trading. Uniquely, the videos are prepared by beginners in this area, suiting the tagline ‘learning from peers.’ Guided by SCANMIC methodology in producing a successful eContent learning method by Hassan & Li [1], overall ANATEKS fulfil majority of the SCANMIC paradigm features making it a useful learning medium for new investors. Future recommendation includes the inclusion of industry experts learning materials in the form of videos and pdf documents, coupled with knowledge sharing interactive features in the website.

**KEYWORDS:** ANATEKS, Technical Analysis, SCANMIC, eContent, University Repository.

## 1 INTRODUCTION

‘Technical analysis’, a branch of stock market studies, is gaining interest among stock market practitioners and academicians. In finance, technical analysis refers to a method to predict stock prices based on historical data. It has been a popular and heavily used technique for decades already in financial practice and has grown to an industry on its own [2]. Thus, to be able to equip oneself with technical analysis knowledge is indeed an added advantage to investors and prospective employees in the stock market industry.

Consistent with the above, UiTM has introduced FIN555 Introduction to Technical Analysis subject in its Bachelor of Business Administration (BBA) Finance curriculum. The objective is to equip the students with hands-on skills and knowledge on investment decision tools using technical analysis, in a practical environment assisted by software packages. The following table entails the teaching and learning activities for FIN555 students:

Table 1: FIN555 Teaching Methodologies

Teaching Methodologies	Remarks
1. Lectures	Introduce the theories, concept and the application of technical analysis in stock trading.
2. Computer Aided Learning	Application of the subject is done via Chart Nexus, a technical analysis software.
3. Presentation and Project-based Learning	Students learn while preparing and completing the assigned projects.
4. Textbook Reference	Martin J. Pring, <i>Technical Analysis Explained</i> , McGraw Hill, 5th Edition, McGraw Hill.

Learning in the form of books and lectures may not be sufficient for those who has problems with readings, making learning less effective. Our survey reveals that 87% the respondent is of the opinion that Technical Analysis is an interesting subject. Impressively, 89% and 87% agrees that it is interesting to learn Technical Analysis via lectures and software respectively. However, only 34% voted on books learning, implying its unpopular usage.

In this respect there is a need to explore the possibilities of assisting the course learners with additional learning materials such as e-content items. E-content helps the learning process using videos and other softcopy materials. E-content increase convenience and accessibility via internet devices such as smart phones in a fun, very cheap and time friendly environment. Results of some studies suggest that involvement with computers through the use of eContents and other new technologies, can promote positive attitudes towards learning and higher achievement among learners [3]. In line with the current technological climate, at the end, we propose an e-content learning medium called “ANATEKS: Learning from Peers” to assist students and learners to understand better the subject learnt.

## 2 OBJECTIVE

The objective of the study is to propose an additional learning medium in investment particularly the technical analysis subject in stock trading. Using e-Content learning methodology guided by SCANMIC paradigm by Hassan & Li [1], we wish to produce a successful eContent learning medium. We propose an e-content learning medium called “ANATEKS: Learning from Peers” to assist instructors and learners to understand the subject matter practically, fast and in a meaningful way. It has the potential to be a knowledge sharing medium especially for beginners in the industry.

### 3 SIGNIFICANCE(S)

Students and the general public can take advantage of this new type of content presentation. Shiratuddin, Hassan and Landoni [4] posit that eContent can help promote academics work worldwide, assist students to immediate access to lecture notes, modules, and textbooks, and be designed to equally satisfy authors and readers. In the present case, videos prepared by beginners guided by the respective trainers were designed to boost students' interest and understanding in the subject matter.

### 4 METHODOLOGY/TECHNIQUE

ANATEKS is an eContent platform using website as the main interface. Users have the experience to learn technical analysis subject using videos linked to Youtube. In addition, the reading materials and notes are also available in ANATEKS website. The diagram below summarizes the workflows:

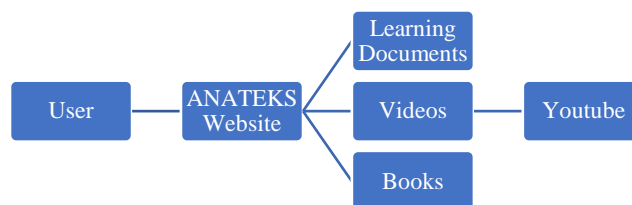


Fig 1: Process Flow of ANATEKS eContent.

We adopt the SCANMIC methodology by Hassan & Li [1] in producing ANATEKS as a successful eContent learning method as follows:

Table 2: SCANMIC Paradigm Adapted from Hassan & Li.

SCANMIX Items	Descriptions
Screen Layout or Appearance	Content should be structured and designed in such a way that users will find information easily and effectively.
Consistency	Consistency in design is vital in determining users' familiarity in terms of for example, navigation icons, colouring scheme, and page structure.
Accessibility	Should take into consideration whether their information are accessible to all target users who use different technology to access the Internet.
Navigation	Good navigation will help users find information easily and quickly especially for large amount of information.
Media Use	The use of multimedia elements could enhance information presentation if used properly and effectively.
Interactivity	Visitors should be provided with interactivity elements such as giving response, feedback, and searching for information.
Content	Content provided should be useful, relevant, and up-to-date.

### 5 RESULT

SCANMIC: **Screen Layout** or Appearance, **Consistency** and **Navigation** issues are dealt with via simple to use website. **Accessibility** is a concern in making the eContent materials. The videos are accessible through multiple medium: university repository in its Resource Centre, the internet via youtube and website. The devices used is through common device such as the smart phone and computers. Meanwhile, cost of accessibility has been reduced via free channels i.e. internet and youtube. Time factor has also been considered as these videos is available 24/7.

Table 3: FIN555 topics, video particulars and accessibility medium.

No	Technical Analysis Topic	Type	Type	Length (Minutes)	Medium	
					Website	Youtube
1	Support and resistance	Video	MP4	6.08	✓	✓
2	Trendlines	Video	MP4	5.29	✓	✓
3	Volume	Video	MP4	6.10	✓	✓
4	Moving Average (MA)	Video	MOV	6.37	✓	✓
5	Envelopes	Video	MOV	5.01	✓	✓
6	Bollinger Band	Video	MP4	5.41	✓	✓
7	Rate of Change (ROC)	Video	MP4	5.52	✓	✓
8	Relative Strength Index (RSI)	Video	MP4	5.10	✓	✓
9	MA Convergence Divergence	Video	MP4	5.54	✓	✓
10	Stochastic	Video	GOM	6.01	✓	✓

Note: The topic listed stated above is as per the FIN555 course content.

**Media Use:** Video is the main media. It is specifically designed based on the course content of FIN555 subject. Videos makes learning convenient, fast and interesting. The length of each video is very short ranging from 5 to 7 minutes per video. **Interactivity:** Website and youtube channel provide the interactive element via common features. **Content:** Taking into consideration the introductory level of this course, the storyboard of the videos was designed in 2 parts, (1) theory of the specific topic, for approximately 2 minutes and, (2) practical application of the TA tools using listed companies in Bursa Malaysia, for approximately 4 minutes. The materials were prepared by those who are beginners in this area and suit the tagline ‘learning from peers’. Selection of the best videos in each respective topic are done through a technical analysis video competition done in the university. Upon viewing these videos, the viewers should be able to grab some ideas about the subject. Uniquely, unlike the majority of the TA videos available in the internet, the videos are prepared using ‘Bahasa Malaysia (BM)’ language to cater for those who are comfortable to learn using BM and for those who has difficulties to learn using other languages.

## 6 CONCLUSION

This paper contributes to the design of eContent for the investment related discipline. ANATEKS fulfil majority of the SCANMIC paradigm features making it a useful learning medium for new investors. Overall, our survey shows that 79% of ANATEKS users agree that ANATEKS eContent materials helps in learning Technical Analysis subject. Future recommendation includes the inclusion of industry experts learning materials in the form of videos and pdf documents, coupled with knowledge sharing interactive features in the website.

## REFERENCES

- [1] S. Hassan & F. Li (2001). Evaluating web usability: the SCANMIC factors. In 8th European Conference on IT Evaluation (ECITE 2001) Proceedings, Oriel College, Oxford (pp. 527-532).
- [2] G. A. Griffioen (2003). Technical analysis in financial markets.
- [3] F. A. McCreary & R. W. Ehrich (2001). Chat rooms as “virtual hangouts” for rural elementary students. *Information Technology in Childhood Education Annual*, 2001(1), 105-123.
- [4] N. Shiratuddin, S. Hassan & M. Landoni (2003). A usability study for promoting eContent in higher education. *Educational Technology & Society*, 6(4), 112-124.