

# IMPACT OF TECHNICAL AND FUNDAMENTAL ANALYSIS IN THE FOREIGN EXCHANGE MARKET

## ABSTRACT

This paper presents review of technical and fundamental analysis as influenced by global foreign exchange across all trading sessions in Meta bank trading server. The trading is held by broker firms across the globe where Meta bank is the global consults for investors. The broker firms make provisions of trading tools and interactive trading platform for potential traders to make trade transaction with 100% irrespective of their trading decisions with supports from brokers firms. The trading platform is characterized into chartist, line and bar for representing symbols and track trends of price pattern across the globe. Technical and fundamental analysis that is employed among foreign exchange traders and financial journalists in the major sessions (US, London, Asian and Pacific) make impacts. Results confirmed that most traders use both forecasting approaches while minority relies on both chartist technical analysis and fundamental analysis. Financial journalists put more emphasis on fundamental analysis as the key factor that overrides other training instruments. Two distinct traders are identified by research, intraday and inter-day traders. The overall impacts attached to fundamental and technical analysis vary across different trading sessions. Foreign exchange traders mentioned a series of psychological motives and consequences of the use of Chartism of market previous histories. The major concept that the research emphasized is on trading tools for technical analysis and financial journalist forecast in support of fundamental analysis. Therefore, it is recommended that traders should follow fundamental and technical analysis simultaneously to achieve successful trading carrier.

**KEY WORDS:** Foreign exchange, Fundamental analysis, Bullish, Bearish, Technical analysis.

## Introduction

A central question within the interchange market is how market participants and currency traders forecast future market developments. Interchange market participants are usually classified in line with two completely different forecast approaches; elementary and chartist (Frankel and Froot, 1986, 1990). In line with this distinction, fundamentalists are market participants that drive market trend with high volatility by analyzing the underlying economic conditions upon the fact that they assume changes in exchange rates. Chartists, in distinction, study solely the consolidation and gathering momentum in market price trends and believe that the history of previous knowledge provides indicators for future exchange rates. Chartists use technical analysis, i.e. the analysis of past change per unit movements to guide forecasts and mercantilism selections within the interchange market (Neely, 1997). Chartism includes the visual hunt for continual patterns of knowledge across time frames.

Recent research is aimed at formulating another economical markets approach and to supply

38 additional complete answer on how expectations in money markets are shaped, differentiates  
39 between arbitrageurs, i.e. rational smart-money investors, and noise traders. Noise is outlined as  
40 processes resulting in shadow data, i.e. market mechanisms that blur observations of the market  
41 (Black, 1986).

42 Arbitrageurs and noise traders, however, **do not** transcend the classes of fundamentalists and  
43 chartists because the basis for forecasts and selections by arbitrageurs may be seen (Menkhoff,  
44 1998). Technical associate analysis may be seen as an example for noise mercantilism since its  
45 ways build 'on noise or "popular models" and not on information' (Shleifer and Summers 1990, p.  
46 24). The fundamental distinction between chartists and fundamentalists has served as basis for an  
47 indication of the existence of heterogeneous market expectations within the interchange market  
48 (Frankel and Froot, 1990). Significantly within the short term, efforts to see future exchange rates on  
49 the premise of economic 'fundamentals' have had very little success (Harvey, 1996). MacDonald and  
50 Taylor (1992) observed that models that are supported with a theory of economic fundamentals alone  
51 **do not** supply enough explanations of short changes in movements. Also, Frankel and Froot (1990)  
52 noted that normal economic science analysis, for instance, of growth rates or of trade numbers,  
53 cannot predict most short charge per unit changes. For instance, the worth of the dollar in 1984/1985  
54 dramatically departed from what elementary expectations alone would counsel. In response to the  
55 proof that fundamentals alone do not fulfill to elucidate changes in behavior, theoretical models that  
56 think about the interaction of chartist and fundamentalist expectations are developed (e.g. Levin,  
57 1997; Vigfusson, 1997).

58 Despite the growing awareness of non-fundamental factors within the expectations and selections of  
59 interchange participants, there is a shortage of empirical knowledge on the employment of technical  
60 analysis in money markets. A tiny low variety of previous empirical studies on this subject realized  
61 that the relative importance of elementary and technical trading strategies within the interchange  
62 market depends on the mercantilism time frame horizon assumed. Chartism is employed principally  
63 for short forecasts within the London interchange market (Allen and Taylor, 1990), a finding  
64 confirmed for port by Lui and Mole (1998). Menkhoff (1997) finds that conjointly within the German  
65 interchange market, Chartism is employed extensively. Previous studies have conjointly shown that  
66 the relative importance of chartist and elementary analysis within the market is subject to a method of  
67 amendment. For instance, Frankel and Froot (1990) showed that within the amount from 1978 to  
68 1988, interchange forecast services surveyed by Euromoney magazine demonstrated a notable shift  
69 within the reasonably foretelling techniques used. Whereas throughout 1983–1985, the share of  
70 forecast services using technical analysis reached a most, this proportion then diminished slightly  
71 within the 3 consequent years.

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73 This research tries to increase the results of previous findings on the importance of Chartism and  
74 fundamentalism among interchange traders in London (Taylor and Allen, 1992) and in port (Lui and  
75 Mole, 1998) to a replacement geographic location. This paper shows the 1st interchange traders kind

76 currency forecasts in numerous European mercantilism locations, i.e. in U.S, London, Asian, and  
77 Pacific. Since the information for this analysis was gathered at the same time in numerous sessions,  
78 an instantaneous analysis of native variations in forecast strategies employed in completely different  
79 geographic locations of the interchange market is feasible. In this point of view, the primary study that  
80 determines the importance of various varieties of actors within the market, money journalists,  
81 attribute to Chartism and Protestantism for the trends in market. Finally, for the primary time frames,  
82 additional and completely differentiated compartmentalization of perpetual traders supported their  
83 foretelling designs that take different forecast preferences and trading strategies on many foretelling  
84 horizons under consideration is established. A cluster analysis of traders' forecast approaches on  
85 numerous sessions goes on the far side for the easy categorization of elementary and chartist traders  
86 and permits for an outline of two distinct traders designs across time frames, 'chartist, ascending',  
87 'fundamental, ascending', 'constant chartist', and 'inverse middle'.  
88

## 89 METHOD

90 The results conferred during this research supported by conducted experiment on broker trading  
91 platform during active exchange hours (Sunday 22GMT to Friday 23GMT) sessions. Trading  
92 instruments like MACD, Moving Average and candle stick pattern recognition were employed to  
93 forecast currency trend directions and money maker news company i.e. Forexfactory and commodity  
94 index were used for financial journalist forecast on their database.

95 Trading instruments that support technical and fundamental analysis in the study were listed below;

- 96 i. MACD (Moving Average Convergence and Divergence)
- 97 ii. Moving Average
- 98 iii. Candle stick pattern recognition
- 99 iv. Company News
- 00 i. **MACD (Moving Average Convergence and Divergence):** It is characterized with slow  
01 moving average and fast moving average for monitoring price changes across time frames.  
02 It detects price actions when trends unfold and reviews market peak to peak price to the  
03 point of reversal.
- 04 ii. **Moving Average:** It is an instrument for forecasting market price range and it can review  
05 price major trend along time frames on trading platform. This prepares trader to identify  
06 current trends irrespective of time frame used to support technical impact on market price  
07 as it advances. The setup properties used in this experimental research is 33 exponential  
08 moving average High, Low and Close price and work excellently across all time frames.
- 09 iii. **Relative Strength Index:** RSI is a popular indicator that measures trend strength as trend  
10 unfolds. When RSI cross above line 30, then trader can open order means market is  
11 oversold. When RSI cross line 70 measures overbought zone, therefore sell order can be  
12 placed in justice with candlestick reversal pattern.

**iv. Candle stick pattern recognition:** This gives recognitions on price formation which is instrumental to market price decision making, for instance consolidation and momentum price over period of time gives trade signal by reviewing potential trend direction, this can be broken down into three categories are shown on table 1.

- a. Reversal patterns
- b. Trend confirmation
- c. Entry and Exit points

**Table 1:Candle Pattern Recognition**

| PATTERN TYPES              | PATTERN NAMES                                                                                        |
|----------------------------|------------------------------------------------------------------------------------------------------|
| Reverse Pattern            | Head and Shoulder, Double Top, Double Bottom, Consolidation, Momentum, Rail-track                    |
| Trend comfirmation Pattern | Bull Engulfing, Bear Engulfing and Flag                                                              |
| Entry/Exit Pattern         | Inverted Hammar, Grave Stone Doji, Hanging Man, Paircing, Shooting Stars, Morning star, Evening Star |
| Ranging                    | Ascending triangle, Descending Triangle and Channel                                                  |

**v. Time Frames:** Intraday trader depends on 5Min, 15Min,1hr and 4hr market watch for monitoring market trends while inter-day trade traders depends on 1hr, 4hr,weekly and monthly time frames to support technical and fundamental analysis.

**vi. Forex News companies:** Capitalist and money makers gives forecast on daily basis in support of fundamental analysis to forecast trading events and successful traders. They usually follow news speculations to make decisions for the benefit of making profits taking advantage of news events. The research captured Forex factory as the major news publisher available for traders consumption. News impact is categorized into 3 perspectives as shown in table 2.

**Table 2: News, events natures**

| News tips     | Color identification | Reaction on Market Price |
|---------------|----------------------|--------------------------|
| High Impact   | Red                  | High volatility          |
| Medium Impact | Orange               | Medium Volatility        |
| Low Impact    | Yellow               | Low Volatility           |

## RESULTS

## TECHNICAL ANALYSIS

35 Impact of Technical analysis on global market price depends on trading instruments, price actions,  
 36 entry/exit price, most active trading session. London and US sessions were captured using Japanese  
 37 candlestick patterns, RSI, MACD and Moving average to experiment trading activities. Figure 1 shows  
 38 Intraday technical outlooks of Great Britain Pound versus US dollars (GU) pairs on 5min time frame  
 39 on FX-Open platform.

40 **Fig 1a: 15 Minute Technical outlooks**



42 **Fig 1b: 5 Minute Technical outlooks**

43 Fig 1a and Fig 1b show overbought level of GU on technical outlooks which were supported by RSI  
 44 and price projection. It is expected to place entry below swing low using pending order or stake shot  
 45 at RSI overbought zone. Possible target will be 35-50pips under consolidation.



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49 **Fig 2: News Trade event impact on GU currency**



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51 Fig 2 above and fig 3 below **show** impact of news supported by journal's forecast on the fundamental  
52 analysis results as it overrides all technical trading tools and GU reacted to the news event dated  
53 November 15 around 16GMT server time thus influenced global market with high volatility. The  
54 major news release focused on US dollars on import prices, capacity utilization rate and industrial  
55 production.

56 **Fundamental Analysis**

57 According to OANDA fx Trade says; "Fundamental analysis is the interpretation of statistical reports  
58 and economic indicators. Things like changes in interest rates, employment reports, and the latest  
59 inflation indicators all fall into the realm of fundamental analysis" This means traders have potential to  
60 respect economic indicators which can direct price action in the market. This economic indicator  
61 depends on exchange rate which has great effect on trading activities. Traders endeavour to check  
62 economic calendars on central Bank websites and oblige to brokers alerts.

63 **Fig 3: Forex factory New Timeline**



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66 **Source:** Forex Factory server on Forex News

67 FX Net Broker company fundamental expert analysis briefing stated that; "A lack of market moving  
 68 news today has kept the Asian session quiet, and most currencies were trapped in ranges. Markets  
 69 will now look ahead of data from the United States later today on a consumer confidence survey by  
 70 the Conference Board. EURUSD traded a small 10-point range between \$1.3728 ". News at open of  
 71 London session setup new price with higher volatility. On Fig 3 Forex factory domain has shown  
 72 3:15pm 16:30G.M.T. Industrial Production m/m, the previous data released was 0.7% while the new  
 73 release data quoted -0.1%. The high impact should cause U.S. Dollars to weaken but the price action  
 74 failure will lead to price reversal on the current trend. Price shift away from using ranged by braking  
 75 support at the expense of high impact news

## 76 News Scope

77 Considering U.S. currency in news events. If the actual release is greater than previous release data  
 78 on U.S. dollars, therefore U.S. dollars will be strong. A case study of Great Britain Pound versus U. S.  
 79 Dollars (GU). The resultant effect will move price upwards (Bull), **Case 1**. There are some exceptions  
 80 where GU will fail on data release in a reverse mode. Taking note of technical constraints, major  
 81 resistance relating to past tracking history of that economic indicator and Chartistic history at prompt  
 82 news release.

83 On the other way round, if the actual release is less than previous release, expected market reaction  
 84 will be bearish on U.S therefore, Weakness will trigger selling pressure against Great Britain Pound  
 85 only on exception that data release occurs in reverse order as a result of **case 1** stated above.

## 86 Fig 4: Impact of Technical Outlook on Price Action

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89

90 Technical outlooks on 15min time frame metal trader 4 platform show response of technical forecast  
 91 as resulted to reversal as a result of rules on market price technical reactions measured with MACD,  
 92 moving Average and japanese candle patterns, these make potential traders conceive idea of the  
 93 expected direction of price movement with best regards to price actions.

94 Fig 5: Outlooks of 33 EMA with RSI indicator

95



96

97 Major Scope Fig 5 :

98 Place sell order when price candle close below SMA 33 yellow and Exit when RSI hit 30% and below  
 99 on confirmation of hammar candlestick formed. Note that 30% RSI is overbought zone while 70%  
 00 considered overbought zone. This strategy is suitable for (10-20)pips take Profit and 15pips Stop loss  
 01 using 5min timeframe.

02 Fig 6: Outlooks of 33 EMA with RSI indicator



## Major Scope Fig 6 :

Place sell order when price candle close above SMA 33 yellow and Exit when RSI hit 30% and below on confirmation of hammar candlestick or Doji formed. Note that 30% RSI is overbought zone while 70% considered overbought zone. This strategy is suitable for (10-20)pips take Profit and 15pips Stop loss using 5min timeframe.

## Discussions

As a result of MACD negative **divergence** and the occurrence of multiple tops that make great impact of price to reverse because both conditions oblige as the price ascending upward which means price **does** definitely reverse and gives new trend in bearish engulfing pattern. In reciprocal, trade requirement for MACD positive divergence with occurrence of multiple bottoms that will create bull engulfing pattern for up trend initialization.

33 exponential moving average (High, Low, Close) is a unique strategy to monitor trends, it enables traders to follow trend as it advances by entering market with retracement low-low on uptrend and high-high on down trend. **Fig 5 and 6** below illustrate graphical stage entry and exit of GU price action

Japanese Candle stick pattern review price information for traders to make decision by following chartistic trading rules. Major reversal pattern gives traders potential chance to prepare for new market direction. Trends pattern allow traders to follow price actions as it unfolds, moreover, to trade winning paths of major current trends in either uptrend (Bullish candle stick patterns) or downtrend (bearish candle stick patterns). Execution trades is an height of sending request over meta trade client terminal to broker server of which an authentication is sent to meta bank on broker approval. Active position signifies status of concurrent orders (buy or sell) which will reside on trade tab and the trade history shows all completed (close) trades displayed in profits and loss trades.

News events is an economic indicator that allow traders to follow fundamental analysis forecasted by Forex factory and other news companies in relation to actions even on countries economic activities. According to the findings, it shows that news is like a catalyst that speed up market price on

30 immediate release because successful trader only take advantage of high impact news that spikes  
31 market price.

32 There are some exceptions where price fails as a result of political speech like conference,  
33 presidential speech, FOMC, chairman speech, crises and other breaking news. These can override  
34 other economic indicators and technical outlook of price action.

### 35 **Observation**

36 Combination of technical and fundamental analysis gives excellent trade results because market  
37 price is always right and obey both analysis on reactions.

38 Interday traders make trade activities on long time(days, Weeks, Months) basis and dominate global  
39 market because they posed giant capital on long time investment while intraday traders complete all  
40 trading activities within a day and popularly known as market scalpers because of their little startup  
41 investment.

42 The most active and trending trading activities was discovered in two sessions (London and US) of  
43 which market price gain highest volatility especially US session.

### 44 **Conclusion**

45 Technical and fundamental analysis requires deep experience in trading successfully. Proper trade  
46 management, risk management and focus on major events that warrant order execution using  
47 accurate forecast. Analysis is a principal factor that unleash profit for potential traders on currency  
48 exchange market. Trades history, and major economic indicators is principal motive which all traders  
49 should look after on regular basis.

50

### 51 **Recommendation**

52 Importance of technical and fundamental analysis cannot be overemphasised for making trade  
53 decisions and limiting losses. Being a perfect economic indicators to monitor, evaluate and forecast  
54 market price. Therefore, It is a guide to support traders on capital management to strengthen  
55 investment margin. Technical and fundamental analysis is best employed in London and US trading  
56 sessions for both interday and intraday traders.

57 Traders should take precautions on prematured trends and false signals based on sentimental news,  
58 overbought and oversold trading zones to avoid trade loss. Protecting accounts with the use of stop  
59 loss and take up profit on every trade execution is hereby recommended.

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