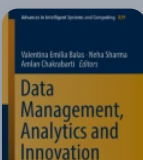


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Big Data Analytics: A Trading Strategy of NSE Stocks Using Bollinger Bands Analysis

Conference paper | First Online: 08 September 2018

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examined the profits generated over one trading year. The tick-by-tick stock market data has been sourced from the NSE and was purchased by Amrita School of Business. The tick-by-tick data being typically Big Data was converted to a minute data on a distributed Spark platform prior to the analysis.

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Appendix

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```
names(stock)[1]<-"stock";  
names(stock)[2]<-"date";names(stock)[3]<-"time"  
names(stock)[4]<-"price";  
names(stock)[5]<-"qty";  
setwd("C:\\Users\\Desktop\\bb\\work")  
source("bollinger.R");  
setwd("C:\\Users\\Desktop\\bb\\yearfullsorted")  
}
```

1.1.2 5.4.2 One-Year Profits

The R program for calculating the 1-year profits generated using the Bollinger

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```
setwd("C:\\Users\\Desktop\\bb\\yearfullsorted")

}

bollinger.R

library("TTR");

stock[6]=round(SMA(stock[4],n=20,na.rm=TRUE),digits=2)

names(stock)[6]<-"SMA";k=19;p=nrow(stock)-k;

for (i in 1:p)

{r=k+i;

stock[r,7]=round(sd(stock$SMA[i:r]),digits=2)};

names(stock)[7]<-"SD"
```

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```
{sold<-(stock$price[i]*qty_bought);sold_amt<-sold_amt+sold;
qty_bought=0;}}
invest_amt_bal=(qty_bought*max(stock$price))
tot_sale=sold_amt+invest_amt_bal; intraday_profit=tot_sale-buy_amt;
profit<-round(intraday_profit/buy_amt*100, digits=2);
result<-c(qq,tot_sale,buy_amt,intraday_profit,profit,volatility)
print(result);
```

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