# Literature Review

**Michael Wessler**, an author of **Predictive analytics for Dummies** says decision makers have to make assumptions based on the previous event and this process is imperfect. Assumptions have a terrible notoriety, yet they have their place and in the event that they weren’t useful, people wouldn’t still make them. He puts forward that companies uses predictive analytics to more accurately identify and understand their customers need. With specific customer information marketing and promotional campaigns becomes less expensive while generating increased revenue. For example, the commercials adds during your favorite TV shows are totally different from early morning children’s cartoons. He defines predictive analysis *as it is the process of using a set of sophisticated analytic tools to develop models and estimations of what the environment will do in the future*. In addition to the preceding definition of predictive analytics, Gartner Research Director Gareth Herschel says this: “*Predictive analytics helps connect data to effective action by drawing reliable conclusions about current conditions and future events*.” What to look for in the analytics tools is important topic and this book provides clear direction. According to writer, before choosing any predictive analytics software package, have the software evaluators catalog the predictive procedures and algorithms supported by the software and make sure that they match their data characteristics and will indeed benefit our analysts. We must choose any tool to be powerful enough to do the job required and easy enough to use effectively.

**Eric Siegel**, an author of **predictive Analytics The power of Predict who will click, Buy, and Lie OR Die** defines predictive analysis revels truth as the data embodies a priceless collection of experience from which to learn. Every medical procedure, credit application, Facebook post, movie recommendation, fraudulent act, spammy e-mail, and purchase of any kind – each positive or negative outcome, each successful or failed sales call, each incident, event, and transaction – is encoded as data and warehoused. This glut grows by an estimated 2.5 quintillion bytes per day (i.e. 1 with 18 zeros after it). And so a veritable Big Bang has set off, delivering an epic sea of raw materials, a plethora of examples so great in number, only a computer could manage to learn from them. Used correctly, computers avidly soak up this ocean like a sponge. A data piles up, we have ourselves a genuine gold rush but he warns data is not the gold instead its raw form is boring crud. The gold is what’s discovered therein. It discovers how world works and with this new knowledge prediction is possible. What people would like to predict like love, work, vote, divorce, mess up, lie, cheat, steal, kill and die. The writer gives some examples Hollywood studios predict the success of a screenplay if produced. Also, Australian energy company Energex predicts electricity demand to order to decide where to build out its power grid, and Cond Edison predicts system failure in the face of high levels of consumption. Companies predicts which customer will buy their new products in order to target their marketing, from U.S. Bank down to small companies like Harbor Sweets and Vermont Country Store. These prediction dictate the allocations of precious marketing budgets. Some company literally predict how to best influence you to buy more. Predicting mouse clicks pays off massively. Since websites are often paid per click for the advertisements they display, they predict which ad you’re mostly likely to click in order to instantly choose which one to show you. This, in effect, select more relevant ads and drives millions in newly found revenue. As Danish physicist Niels Bohr put it, “Prediction is very difficult, especially if it’s about the future”. After all, isn’t prediction basically impossible? The future is unknown and uncertainty is the only thing about which we’re certain. But writer want to clear us that prediction is generally with only 50% accurate, and it’s not easier to predict human behaviors. Prediction drive how organizations treat and server an individual, across the operations that define a functional society. Writer defines prediction as different topic from forecasting where forecasting makes aggregate predictions on the macroscopic level. Mike Loukides, a vice president at the innovation publisher O’Reilly, once put it, “Data science is like porn—you know it when you see it.” Also data mining often comes as synonyms for predictive Analytics, it is often used more broadly as well. **Professor vasant Dhar**, Stern School of Business, New York University puts his words as “*The powerhouse organizations of the internet era, which include Google and Amazon… have business models that hinge on predictive models based on machine learning*”. Still writer reveals the risk of trusting the predictions in this very book. Emotions reveals people’s behaviors and writer hereby put forward how emotions shown in blogs can predict people’s health issues. We can find different forecasting mechanism and how they can be used for targeted advertisement in this exciting book.

Marketing pioneer John Wanamaker famously put it, “Half the money I spend on advertising is waster; the trouble is I don’t know which half.” Actually more than half and the good news is predictive analytics can learn to do better.

In a movie **Next** based on a story by **Philip K. Dick**, Nicolas Cage kicks some serious bad-guy. His weapons? No, He can see the future but just 2min ahead. Unarmed civilian with good heart best of intensions, he winds to something of war zone, surrounded by a posse of heavily armed FBI agents who obey his every gesture. He sees every damage of booby trap, sniper and mean faced grunt before it happens and so can command right moves for this superhuman Risk-Aversion Team. In the same way installing predictive analytics in organization helps to take every decision with protective benefit of foreseeing each pitfall so that it may be avoided.

Business benefits of leveraging predictive analytics in HR, thesis by Sonja Ruohonen, 2015, submitted for Department of Information and Service Economy, Aalto University School of Business puts forward different research about predictive analysis. Author have defined different aspects of using predictive analysis in HR department of a company. His words are against the challenges to rise from the lack of proper human resource in company and how PA could help organization to hire appropriate human resource. As company determines their employees as mostly earned factors. This thesis topics helped me out to gain knowledge about structure of thesis writing, different KPIs and measurements, analytics and design of statistical modeling etc. He mainly focus in HR which has been seen as a cost center instead of a value creating function. His report reveals the profitability and effects on the company outcomes, instead of following up the HR functions internal measure only.