

**ANALISIS PERHITUNGAN OPTIMALISASI PRODUKSI BOX SPEAKER
DENGAN METODE ECONOMIC PRODUCTION QUANTITY (EPQ)
PADA UD. AROFAH ELEKTRONIK KUDUS (PROFOTEX)**

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ABSTRAK

UD. Arofah Elektronik Kudus merupakan salah satu perusahaan elektronik yang memproduksi Speaker dan Box Speaker. Dimana pemasarannya sudah meluas sampai ke pulau Jawa, Sumatra dan sebagai supplier di beberapa perusahaan di pulau Jawa. Permasalahan yang dihadapi perusahaan ini yaitu dalam melakukan proses produksi secara kontinyu perusahaan belum dapat melakukan perencanaan dan pengendalian produksinya pada satu mesin yang dimiliki. Maka dari itu, penelitian ini menganalisa solusi yang tepat bagi perusahaan yaitu menganalisa pola data historis permintaan setiap item untuk dilakukan peramalan sebagai acuan perencanaan produksi dan melakukan pengendalian produksi optimal menggunakan metode Economic Production Quantity (EPQ). Dari hasil penelitian, metode peramalan yang tepat untuk Box Speaker 6 inch, Box Speaker 8 inch dan Box Speaker 10 inch adalah Winters' Method, dan untuk Box Speaker 12 inch adalah Quadratic. Dan hasil dari perhitungan dengan metode EPQ menggunakan data hasil peramalan setiap metode produk yaitu didapatkan bahwa jumlah siklus optimal produksi sebanyak 8 siklus produksi, dimana 1 siklus produksi selama 36 hari, dan pembagian pergantian produksi setiap item dalam 1 siklus produksi yaitu produksi box speaker 6 inch = 9 hari harus memproduksi sebanyak 5971 box, produksi box speaker 8 inch = 10 hari harus memproduksi sebanyak 5649 box, produksi box speaker 10 inch = 9 hari harus memproduksi sebanyak 3872 box, dan produksi box speaker 12 inch = 5 hari harus memproduksi sebanyak 2113 box. Dari perhitungan menggunakan metode EPQ terjadi penghematan biaya produksi dan otomatis meningkatkan laba perusahaan sebesar 11% atau sebesar Rp. 3.070.519.227, sehingga metode perusahaan tidak optimal dalam produksinya dan dapat menerapkan metode EPQ ini.

Kata Kunci : Kata kunci : Perencanaan dan pengendalian produksi, peramalan, metode EPQ.

**ANALYSIS CALCULATION PRODUCTION OPTIMIZATION SPEAKER
BOX WITH ECONOMIC PRODUCTION QUANTITY METHOD (EPQ) UD.
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ABSTRACT

UD. AROFAH ELKTRONIK KUDUS is the one of electronic company that which producing speaker and speaker box. Where marketing has been extended to the island of Java, Sumatra, and as a supplier of several companies in the island of Java. Problems faced by these companies are in the process of continuous production company has not been able to do the planning and control of production on one machine owned. Therefore, this study analyzes the right solution for companies is to analyze the pattern of demand for each item of historical data for forecasting as a reference made production planning and controlling optimal production using Economic Production Quantity (EPQ). From the research results, forecasting method is right for Speaker Box 6 inch, 8 inch and Speaker Box Speaker Box 10 inch is the Winters` Method, and for Speaker Box 12 inch is Quadratic. And the results of the calculation method of EPQ uses data forecasting results of each method of product that showed that the number of cycles optimal production by 8 production cycles, where one cycle the production of for 36 days, and the division of the turn of the production of of each item in one production cycle is the production of box speaker 6 inch = 9 days should produce as much as 5971 Boxes, the production of box speaker 8 inch = 10 days have to produce as much as 5649 Boxes, the production of box speaker 10 inch = 9 days should produce as much as 3872 boxes, and the production of box speaker 12 inch = 5 days should produce as much as 2113 Boxes. From calculations using the methods EPQ happen automatically saving production costs and increase its profit by 11%, or Rp. 3070519227, so that companies are not optimal method in its the production of and can apply this method EPQ.

Keyword : Keywords: Planning and production control, forecasting, EPQ method.