

ACCOMMODATING SOLO WOMEN PASSENGERS WHEN MAKING SEAT RESERVATION

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Abstract

Most airlines companies' core objective is to provide a smooth air traveling experience to their passengers. To increase passenger satisfaction, airlines should be aware of passenger seating preferences, including solo women passengers. In the MENA countries, particularly in Saudi Arabia, women are considered to be more conservative than in other countries. Due to cultural matters, women do not feel comfortable sitting next to a man passenger. At the time of boarding, when women find that their seat is assigned next to a man seat, they usually request for reseating. Most airline seat reservation systems do not meet solo women's concerns of sitting next to men. The aim of this project is to develop an effective seat reservation system that accommodates solo women passengers' preferences. It will help the airlines to eliminate seat rearrangement when board on the aircraft. In order to reach an optimal solution, three alternatives were generated and compared using the Analytical Hierarchy Process (AHP). The optimal solution that will be applied in this project is a computerized seat reservation system with an optional choice for sitting in a flexible female zone, with different options for seat types and locations. A check-in procedure will be established and followed by the check-in counter agents, and a boarding strategy will be provided to solve the swapping issues. The expected outcome from this project is to have a satisfactory seating arrangement for solo women passengers.

Index Terms - Solo Women, Seat Reservation System, Female Zone, Check-In, Boarding,

Aircraft, Rearrangement, Swapping, Reseating

Biography

Ajwan H. Jan was born in 25th Oct 1994 and grew up in Jeddah, she is a senior Industrial Engineer student at King Abdul-Aziz University, married to Architecture Hattan Tashkandi. A girl out of three boys and a daughter of a father working at Saudi Airline Catering as central lab manager and a daughter of a retired mother worked as Physics teacher. Ajwan proud of herself and satisfied to be the second female batch that will graduate from public collage of Industrial Engineering. She also loves to learn anything new and loves adventures. She took her summer training at one the biggest locally distribution company at TAMER, it added value to her to explore the Supply Chain knowledge, that she is willing to continue her graduate studies in this field. She also has high ambitious about future work life and she expected to be an influencer person in her society. Ajwan characterized by ongoing and flexible. Now, she is focusing to finish her last year in the university and busy with the senior project.

Ayah S. Jamal-Allail is an Industrial Engineering student at King Abdul-Aziz University. She expected to graduate in 2017. Ayah is married since her first year of university from an Architecture Engineer his name is Hattan Marzouq and have a beautiful Daughter Bateel Marzouq. A private business that Ayah works on is doing face makeup; it is one of her best talents and hobbies. She is proud of herself and satisfied with what she has achieved in few years. Ayah is looking forward her career life and she has a vision of herself having a successful future. In addition, she likes to learn new things, good at working in teams and always willing to help people. Her training was at Panda Retail Company for two consecutive summers in supply chain department. She worked on the promo plan at Panda including forecasting, ordering, cancellation and distribution. Currently, Ayah is working on her senior project with her team, which is “Accommodating Solo Women Passengers When Making Flight Seat Reservation”.

Noor A. Faidy is an Industrial Engineering senior student at King Abdulaziz University. She is dedicated person who wants to achieve excellence in any position by using her educational background, previous experience, and all her skills. She is an energetic and ambitious person who has developed a mature approach to any task she undertakes. She has a great experience in education since she worked in children summer courses as a leader teacher. In addition, she got the honor to lead different groups in organizing conferences and festivals. She has been volunteering in many events for almost 7 years. She recently took her internship in an IT service providing company, which is SMART Technology Solutions. She got to work in the head of quality in the company as an acting member of the quality team.

Nuran A. Tashkandi is a senior student at the King Abdul-Aziz University and currently taking up a bachelor’s degree in industrial engineering. As an engineering student, she has trained to work within a team, work under pressure and meets the deadlines of a running projects. She is a member in Institute of Industrial Engineers (IIE) and Women in Engineering (WIE) at King Abdul-Aziz branch. She got a perfect opportunity to join Unilever Company on Trade Category Management (TCM) department as a COOP trainee for six months. On the duration of the training she was able to have better understanding of the core business, improves her-self on technical skills such as Microsoft Office, Spaceman for Planograms and Advisor for Market share analysis. On her personal side, she is 21 years old. A wife and mom of little Yousef. In regarding to her hobbies, she enjoys reading and watching documentary videos

on her free time.

Raed R. Obaid is an Assistant Professor in the Department of Industrial Engineering at King Abdulaziz University, Jeddah, KSA. He earned B.S. in Industrial Engineering from King Abdulaziz University, Jeddah, KSA, Masters in Computer Integrated Manufacturing from Loughborough University, UK and PhD in Industrial Engineering from De Montfort University, Leicester, UK. Dr. Obaid was the Vice Dean of the Faculty of Engineering at North Jeddah Campus of King Abdulaziz University. He also worked for the Savola Company, Jeddah before joining King Abdulaziz University. Dr. Obaid was the head of Referees Committee of Makkah and Baha Regions at Mowhiba's National Olympics for Scientific Creativity. He is a member of the Referees Committee of the Innovation and Entrepreneurship Division at the Scientific Forum for Students of King Abdulaziz University.

Rimal Abutaha is an Assistant Professor in the Industrial Engineering Department at King Abdulaziz University (KAU) in Jeddah, Saudi Arabia. Prior to joining KAU, Dr. Abutaha worked at University of Sharjah as a visiting Assistant Professor in the Industrial Engineering Department. She received her BS in Industrial Engineering from Applied Science University in Jordan, MS in Engineering and Technology Management from Portland State University in Oregon, and Ph.D. in Technology Management from Portland State University in Portland Oregon.