



Royal Mail

Title: The Impact of Modern
Technology on Royal Mail
Group: number 4
Module name: DSR
Module code: BMSW4003
Lecturer: Balendran Kandasemy

The Topics Covered in This Project:

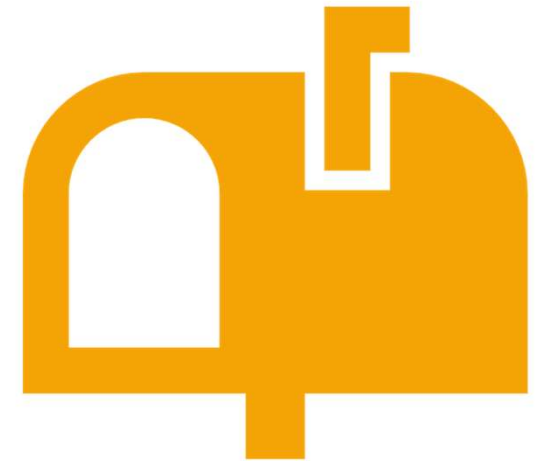
Topic	Student name	Student ID
Background of the organisation	Vladislav Scarevnea	2125439
The challenge(s) before the introduction of modern technology	Gabriela Tertiu	2125134
Insights to the modern technology introduced	Leyla Aliyeva	2123647
The impact of the technology introduced	Cristina Dogari	2123451
Lessons that can be drawn from the case study	Vladislav Scarevnea	2125439

Table of Contents:

1. Background of the organisation
2. The challenges before the introduction of modern technology
3. Insights to the modern technology introduced
4. The impact of the modern technology introduced
5. Lessons that can be drawn from the case study

Background of the Organisation:

- ▶ Royal Mail traces its origins back to 1516 (Royal Mail Group Limited, 2022)
- ▶ Between the next 300 years the service builds up and transforms (Royal Mail Group Limited, 2022)
- ▶ From 19 to 20 century major attributes introduced to the UK help Royal Mail evolve (Royal Mail Group Limited, 2022)
- ▶ In the 21 century the service becomes more and more digitalised and many digital features are added (Royal Mail Group Limited, 2022)



Background of the Organisation:

- ▶ What is Royal Mail today?
 - Today, Royal Mail is an international postal service and courier organisation.
- ▶ What is the Royal Mail purpose, mission, and vision?
 - Connect people, provide a better service, focus on customers.
- ▶ What services does Royal Mail provide?
 - A wide range of services starting from basic letter delivery to complex digital technologies.
- ▶ What is the future of Royal Mail?
 - Expand to more countries, improve services, and grow job openings



Vladislav Scarevnea (2125439)

The challenge before the introduction of modern technology

- ▶ Before the introduction of sorting machines to the Royal Mail company it was much harder than today. The company needed a large number of employees to be able to collect all the packages and letters on time, to sort all the packages by categories regions and others (Admin_directmail, 2020). However, the packages arrived in a longer time, which decreased the company's reputation and made it compete with many other delivery companies.



The challenge before the introduction of modern technology



- ▶ For such a large number of staff the company needed to spend large sums of money for all employees and transport for the collection and delivery of parcels. Because the employees had a large number of parcels for sorting and a difficult schedule, there were cases where the staff due to overwork could miss the destination of the parcel for sorting and for this reason the recipient was very dissatisfied.

The challenge before the introduction of modern technology

- ▶ Before the sorting machine was installed, employers had to do difficult things when sorting packages, for example sorting packages weighing 30 kg or more requires power, considering how many packages of a kind an employee could hit his health. it was put at risk but the car that appeared earlier made it easy for the employees to worry about this and offered them the opportunity to do much easier things that do not require physical effort.



Gabriela Tertiu (2125134)

The challenge before the introduction of modern technology



- ▶ In order not to lose customers, the company had to pick up all the packages on time and take them to the warehouse where they are later sorted, but due to insufficient workers the work was not done on time and the packages as they passed were still collected and delivered. the company had to have a huge space so that all the packages were distributed so that they would not be lost, but the subsequent renovation gave them the possibility that all the packages did not depend on the available space because the car started sorting the packages so fast other packages did not even manage to take up much space. This car sorts 157,000 packages per day which is not possible for a simple staff (Phillips, 2022).

Gabriela Tertiuc (2125134)

Insights to The Modern Technology Introduced

Parcel Sorting Machine:

- ▶ A smart conveyor belt and scanning system that organizes packages for delivery to mail centres across the country (Post & Parcel, 2022)
- ▶ The technology is being used to control the increasing volume of shipments entering the Royal Mail network (Post & Parcel, 2022)

As the company moves to become a parcels-based business that also delivers letters in the UK, and this move of introducing PSM is part of that process. It is called the Parcel Sorting Machine (PSM), and it is an intelligent system of conveyor belts and scanning technology that automatically sorts parcels so that they can be sent to mail centres across the country. During this time, the company is rolling out parcel sorting machines to mail centres all over the UK to make it easier to send mail. The technology is being used to deal with the growing number of parcels that come into the Royal Mail network every day.



Leyla Aliyeva (2123647)



Insights to The Modern Technology Introduced

How parcel machine works:

- ▶ 200 sorting trays are used for sorting 10000 parcels in an hour (Post & Parcel, 2022)
- ▶ Parcels are sent to local mail centres across the country (Post & Parcel, 2022)
- ▶ Handles a range of parcel shapes and sizes weighing up to 31 kg (Post & Parcel, 2022)

Now it comes to the point how this machine works or operates. Royal Mail has introduced a completely automated parcel sorting equipment at its Tynside Mail centre, which can process 180,000 packages every day. In order to handle up to 10,000 packages every hour, the system employs its 200 sorting trays. Parcels weighing up to 31 kilogrammes may be processed by a parcel sorting system that is the same length as six double-decker buses built by the automated technology company Bowe Group.

Leyla Aliyeva (2123647)

Insights to The Modern Technology Introduced



Processing 180,000 packages daily (The Guardian, 2022)



Items are deposited on a conveyor belt before being manually transferred cells on two separate conveyor belts (The Guardian, 2022)



In dimension weight scan regions, 2D barcoded objects are scanned using bar scanning technology (The Guardian, 2022)

Parcel shipments are put on a conveyor belt at their front end before being physically transferred to two separate conveyors. The 2D barcoded products are read using bar scanning technology in the dimension weight scan zones. The system employs optical character recognition technology to scan postcodes for objects that do not have barcodes.

The impact of the modern technology introduced:

- ▶ Thanks to the parcel sorting machine, the sorting of the packages is four times faster than the manual sorting.(logistics manager,2022)
- ▶ This machine can handle with any size, shape and weight up to 31 kg, so people no longer have to carry weights making work easier.(logistics manager,2022)



The impact of the modern technology introduced:



Now that online marketing is in growing, with this machine the company can cope with the growing demand for online shopping and parcels.(logistics manager,2022)

In November 2019, they exceeded more than 500,000,000+ automatically sorted packages, since in December 2016 PSM(Parcel Sorting Machine) was installed in Swindon Mail Center for testing.(Royal Mail Group Limited,2022)

Now they can process more than 11,000 parcels per hour compared to the initial estimates of optimum performance of only 7,500 parcels per hour.(Royal Mail Group Limited,2022)

The impact of the modern technology introduced:



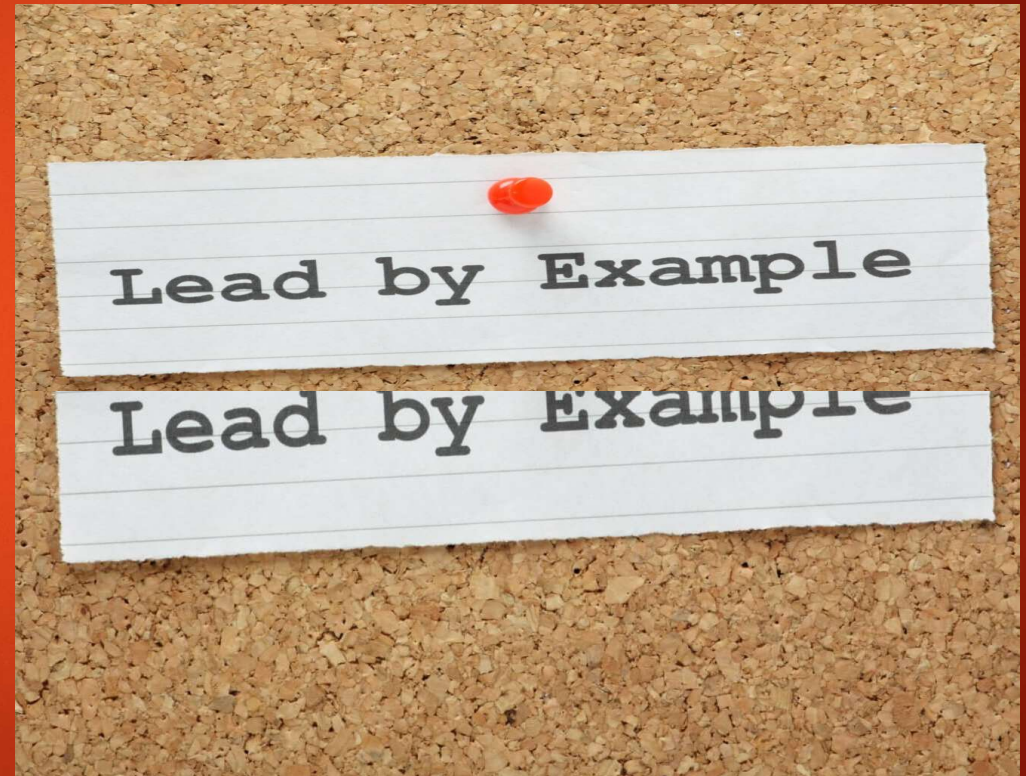
- ▶ People are starting to have more confidence in the company, due to the reduction of mistakes in sorting packages.
- ▶ The automated parcel strategy will allow Royal Mail to grow in the market in the long run and stay afloat with competitors .
- ▶ In the past they relied more on letters, now they have decided to focus and develop more with online packages and parcels, increasing the number of jobs, providing more jobs for people.

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

-
- A conceptual image showing a globe held by two hands, with various icons floating around it, representing different aspects of life and technology. The icons include a car, a plane, a hot air balloon, a bicycle, a laptop, a smartphone, a game controller, a camera, a lightbulb, a book, a clock, a pair of glasses, a map, a tree, a house, a person, a dog, a cat, a fish, a flower, a leaf, a heart, a star, a moon, a sun, a cloud, a rain cloud, a lightning bolt, a fire, a water drop, a snowflake, a leaf, a flower, a heart, a star, a moon, a sun, a cloud, a rain cloud, a lightning bolt, a fire, a water drop, a snowflake. The globe is surrounded by a glowing blue and green aura, and the hands are positioned as if holding the globe gently.

Lessons That Can Be Drawn from the Case Study:

- ▶ Royal Mail is an example for other companies not to be afraid of new technology
- ▶ The best way to keep customers is prioritise them and their needs
- ▶ Facilitating good conditions for employees is extremely important
- ▶ Expanding and growing are tools for building trust



References:

Admin_directmail (2020). *History of the Royal Mail - 121 Direct Mail* [online] Available at: <https://www.121directmail.co.uk/a-short-history-of-the-royal-mail/> (Accessed 21 April 2022).

Logistics manager (2022). *Royal Mail rolls out fully-automated parcel sorting machine in Chester* [online] Available at: <https://www.logisticsmanager.com/royal-mail-rolls-out-fully-automated-parcel-sorting-machine-in-chester/> (Accessed: 22 April 2022)

Post & Parcel (2022). *Royal Mail: transforming the way we process parcels | Post & Parcel*. [online] Available at: <https://postandparcel.info/141971/news/e-commerce/royal-mail-transforming-the-way-we-process-parcels/> (Accessed: 28 March 2022)

Phillips, L. (2022). *Royal Mail rolls out first fully-automated parcel sorting machine in Wales*. [online] Available at: <https://www.business-live.co.uk/economic-development/royal-mail-rolls-out-first-23540142> (Accessed: 21 April 2022).

Reedy, K. and Parker, J. (2017). *Digital literacy unpacked*. London: Facet.

Royal Mail Group Limited (2022). *Our story*. [online] Available at: <https://www.royalmailgroup.com/en/about-us/our-story/> (Accessed: 14 April 2022)

The Guardian (2022). *Royal Mail delivers record parcel numbers as Covid cuts despatch of letters*. [online] Available at: <https://www.theguardian.com/business/2021/feb/11/royal-mail-delivers-record-parcel-numbers-as-covid-cuts-despatch-of-letters> (Accessed: 28 March 2022)

Questions?

