BAB 5
KESIMPULAN DAN SARAN

5.1. Kesimpulan

Berdasarkan hasil analisis yang telah dilakukan mengenai penggunaan IoT di industri konstruksi di negara lain dan di Indonesia, didapatkan beberapa hal berikut:

1. Dari 46 jurnal di yang dikaji, ditemukan bahwa 63% jurnal merupakan jurnal yang sudah diterapkan dan ranah terbanyak yang telah dibahas merupakan ranah *construction safety* (37%), yang kedua merupakan *project management* (33%), menempati keempat dan kelima merupakan *fleet managemet* dan *site monitoring* (13%), dan terakhir merupakan *machine control* (4%).

2. Perkembangan IoT di dunia pada industri konstruksi hingga saat ini dipimpin oleh negara Cina karena dapat dilihat bahwa negara Cina merupakan negara yang menyumbang hingga 40% dari total jurnal yang dikaji. Selain itu, jurnal-jurnal dari negara Cina juga telah membahas seluruh 5 ranah menurut Ibrahim dkk hal ini membuat Cina menjadi satu-satunya negara yang telah membahas 5 ranah diantara 6 negara pengguna IoT di industri konstruksi lainnya.

3. Faktor yang menyebabkan adanya perbedaan dalam publikasi dari tiap negara adalah karena adanya perbedaan waktu masuknya IoT ke negara-negara tersebut, lalu adanya perbedaan besar dana yang dikeluarkan oleh pemerintah pada sektor R&D, lalu adanya perbedaan level *Information and Communication Technologies* (ICT) antara tiap negara sehingga sumber daya yang ada antar negara akan berbeda dan adanya urgensi yang berbeda-beda dari tiap negara.

4. Berdasarkan analisis diketahui bahwa Indonesia memang masih sangat tertinggal dalam penggunaan IoT di industri konstruksi di Indonesia karena dapat dilihat dari penelitian yang masih sedikit dan malah cenderung tidak ada di Indonesia. Hal ini didukung dengan hasil pencarian di *Publish or Perish 7* yang baru dapat memunculkan 37 jurnal yang berkaitan ketika dicoba cari menggunakan kata kunci "konstruksi"dan "IoT". Indonesia juga masih tertinggal karena munculnya inisiatif pemerintah dalam mengenalkan IoT pada rakyatnya baru dimulai pada tahun 2018 dan dana yang dikeluarkan pemerintah

pada sektor R&D masih kecil dibandingkan dengan negara lain. Hingga saat ini, baru ada satu ranah pada industri konstruksi yang sudah dilakukan penerapan IoT, ini diterapkan oleh PT. Wika.

5.2.   Saran

Berikut adalah bebrapa saran dari penulis untuk peneliti selanjutnya :

1. Pada penelitian kali ini, negara yang diteliti merupakan negara-negara yang memiliki perkembangan konstruksi yang sudah baik dan sudah lebih berkembang dari Indonesia. Pada penelitian selanjutnya akan lebih baik apabilan perbandingan dilakukan dengan negara-negara yang memiliki kemampuan teknologi yang mirip dengan Indonesia.

2. Untuk parameter yang diuji, akan lebih baik apabila penelitian selanjutnya membandingkan lebih banyak parameter lagi seperti misalnya perbandingan produktivitas manusia.

3. Penelitian selanjutnya akan lebih baik apabila dilengkapi dengan wawancara bersama pihak dari kontraktor atau dari pihak pemerintah.

4. Pada penelitian kali ini sumber yang diambil menggunakan *google scholar*, namun akan lebih baik apabila sumber yang diambil dari *scopus* karena jurnal yang ada pada *scopus* lebih berkualitas.

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