How business intelligence maturity enabling hospital agility

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1. ABSTRACT

The volume of data accumulated in hospitals has exceeded the capacity of their medical information systems, not to mention using the data to make decisions. That is why hospitals started to implement business intelligence systems to extract only correct and useful information for hospital decision-makers. Most studies in the area focus on the establishment and related benefits of BIS. The results showed that BIS maturity had a significant influence on medical information quality. Furthermore, medical information quality exerted a significant effect on medical decision quality, BIS usage, and user satisfaction.

2. SUMMARY OF THE PAPER

Many articles and papers formed the theoretical basis of the research. Information quality has constantly been a topic discussed by scholars and experts in the information systems area. That is why researchers applied different criterias to make the result more more accurate. Based on the background they have created the research model diagram where elements were positively related to each other.
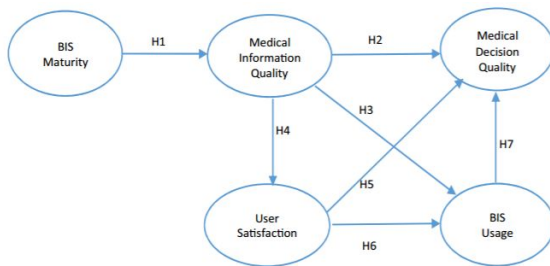

Diagram1. Hypothesis

Basically, the questionnaire is comprised of two parts: the first one contains the current status of BIS in hospitals and the basic information of respondents (age, gender, education, etc.), while the second one contains main research items. . A Likert scale ranging from one to five, so the answers could be from ''strongly disagree" to ''strongly agree" respectively, was used. Through a brief telephone interview a list of different hospitals adopting BIS was obtained. For the hospitals that were willing to participate the survey, a key person was selected to distribute and collect the questionnaires. During April to June 2015 the questionnaires were sent out and targeted at both the clinical and administrative decision-makers who use BIS in their daily work. Speaking about numbers, two-hundred and fifty-five copies of questionnaires were delivered to 17 different hospitals that were willing to participate the survey. The response rate was 61.96%. The majority of respondents are aged 31–40 years old (50.6%), female (58.9%), with bachelors and postgraduate research degrees (90.5%), have job titles as administrative personnel (51.3%), and work in job levels of department director and department supervisor/section chief (50%). For methods used in constructing the system, purchasing suite software ranked first with 52.2% and Microsoft/Analyzer was the most frequently purchased software. The self-development BIS accounted for 32.3% of the sample.

3. RESULTS OF THE PAPER

Five out of seven hypotheses were supported, except H6 and H7. The finding of H6 indicates that regardless the high or low satisfaction of using BIS, the usages of BIS are the same. The finding of H7 indicates that regardless the high or low usage of BIS, the medical decision quality is the same. Further analysis and interpretation follow.

Hy	Relation	β	t statistics	P values	Results
H1	BIS maturity → MIQ	0.575	7.554	0.000	Support
H2	MIQ → Medical decision Q	0.502	4.269	0.000	Support
H3	MIQ → BIS usage	0.692	11.034	0.000	Support
H4	MIQ → User satisfaction	0.407	4.271	0.000	Support
H5	User satisfaction → Medical decision Q	0.205	2.564	0.01	Support
H6	User satisfaction → BIS usage	0.135	1.775	0.076	Not support
H7	BIS usage → Medical decision Q	0.142	1.075	0.283	Not support

Table 1.Results

4. WHAT WAS LEARNED FROM THE REVIEWED ARTICLE?

During the Case Studies and work with the paper were analyzed the importance of business intelligence systems today. Were studied the different thoughts of many researches about BIS purposes and reviewed some significant strategies and were considered some research methods.

5. REFERENCES

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