Original Article

The Impact of Motivation on Productivity: A Study of Healthcare Professionals at City Hospital, Mandalay, Myanmar

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Objective: Motivation is one of the major drives that integrate the internal and external stimuli that motivate a person's continued interest and dedication to a professional role or subject. This study aimed to determine how extrinsic and intrinsic motivational factors influence the productivity of healthcare personnel at City Hospital in Mandalay, Myanmar.

Materials and Methods: Two hundred healthcare professionals (46 medical officers, 95 nurses, 22 pharmacists, and 37 medical technologists) from City Hospital were selected at random using a quantitative methodology. To collect the data, questionnaires and face-to-face interviews are administered to healthcare professionals. The collected data was examined using descriptive analysis.

Results: The study revealed that external factors such as financial reward, accommodation, and transportation also affect work performance. Healthcare personnel was not extrinsically driven, particularly because they were dissatisfied with their current workload, salary, and hospital benefits. The healthcare professionals, on the other hand, were intrinsically motivated due to the nature of their work and their joyful and pleasant working environment. According to the study, there is a substantial correlation between extrinsic and intrinsic motivations and the productivity of health personnel at City Hospital.

Conclusion: City Hospital should use motivational policies that are based on both external and internal motivational blocks.

Keywords: Extrinsic motivation; Intrinsic motivation; Productivity

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INTRODUCTION

Healthcare is one of the basic needs of every country. Hospitals are critical organizations in the healthcare systems of every country, providing healthcare services to patients. Healthcare is a highly labor-intensive industry, with its workforce representing the major and most important component of its service. The demand for healthcare is continually growing because of population growth, a rise in the aging population, advancements in drug provision, and technological growth [1]. The impact of new diseases and infections such as COVID 19, chronic diseases, and long-term conditions is shifting the way public expectations of the healthcare workforce are being considered.

A well-motivated healthcare workforce is a key to meeting the continuous and changing demand for healthcare services and threatening diseases [2]. Recently, the issue of low productivity among healthcare professionals has risen to a great deal of importance in both the private and public healthcare sectors in Myanmar. Due to the falling standards in both private and public healthcare service organizations, motivation has now become a very vital factor to be taken into consideration to enhance organizational productivity.

Motivation is the psychological process that gives behavior purpose and direction; it is a tendency to behave purposefully to achieve specific, unsatisfied desires; it is an inner force to gratify an unsatisfied need, and it is the will to accomplish [3]. There are two main forms of motivation, which are: extrinsic motivation and intrinsic motivation. Extrinsic motivation is when a task is done for external reasons such as money, recognition, avoiding punishment, earning a grade, or possibly competition. It usually originated without someone offering it as a reward. Individuals are said to be intrinsically motivated when they seek interest, the satisfaction of curiosity, self-expression, or personal challenge in their work. Intrinsic motivation, on the other hand, involves doing something primarily for its own sake, for the enjoyment it provides, the learning it permits, and the satisfaction it brings. This type of motivation originated entirely from within itself. Hence, there is a natural connection apparent between one and the reason why one is doing something. Intrinsic motivation tends to be more powerful and is more likely to lead to personal success. Intrinsic forms of motivation are also far more beneficial to a business.

According to Wentzel & Miele (2009) [4], the relationship between employee motivation and productivity has not been established. The consensus, however, is that in the long run, motivation leads to increased productivity. Motivation and productivity may be largely separate casual paths: one set of factors (e.g., investment in technology) determines productivity, and another set (e.g., perceived equity of rewards) produces job satisfaction [5]. There are some conditions under which high productivity more clearly leads to motivation. The first condition is that the employees' perceived extrinsic and intrinsic rewards are contingent upon their productivity, and the second condition is that the extrinsic rewards (for example, pay) are distributed equitably. Inequitable distribution does not persuade employees to maintain close relationships between hard work and rewards [6].

Motivation is a poignant state, triggering people to want or need something strong enough to put forth the required effort to attain it. The link between motivation and productivity seems to be an obvious one. If individuals are highly motivated, they will perform better. If they perform better, their productivity will rise. In turn, better productivity because of higher performance may well lead to a sense of achievement and result in greater motivation. Most people have an intuitive sense that motivation is linked to performance and productivity. The purpose of this study was to investigate the relationships between motivation and productivity of healthcare professionals. Therefore, this study was done at City Hospital in Mandalay, Myanmar to determine the effect of motivation factors (both extrinsic and intrinsic) on the productivity of healthcare professionals.

MATERIALS AND METHODS

Study Design, study population and study period

This study uses a quantitative approach descriptive-analytical design, collecting data through a structured questionnaire. Participants were chosen using simple random sampling from August 15th to August 30th, 2020, and included 46 medical officers, 95 nurses, 22 pharmacists, and 37 medical technologists working at City Hospital in Mandalay, Myanmar.

Data collection

The questionnaire was created in Google Form and is divided into three sections: section A is for socio-demographic characteristics, section B is for extrinsic motivation, intrinsic motivation assessment, and section C is for productivity assessment, with answers on a five-Likert scale for each statement. The statement of agreement scale is 1-5, ranging from strongly disagree to strongly agree. Questionnaires were distributed to 200

healthcare professionals and were filled out voluntarily, with the researcher requesting permission before filling out the questionnaire.

Conceptual Model and Variables

Extrinsic and intrinsic motivation domains were independent variables. Both domains have five items each, while the dependent variable in this study is health care professionals' productivity, which has eight items. Extrinsic motivation is operationally defined as motivation driven by external benefits such as money, fame, grades, and admiration. The operational definition of intrinsic motivation is the act of performing something without visible external incentives. Someone does things because they find it fun and intriguing, rather than because of an external incentive or pressure, such as a prize or a deadline. Productivity is operationally defined as a ratio of output to input. It is a measure of a person's efficiency in completing a task.

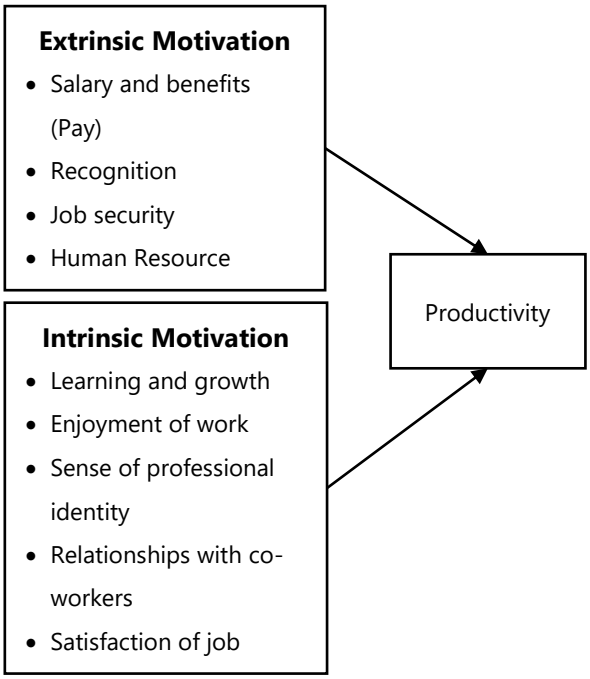

Figure 1. Conceptual framework of the study

Data analysis

Using the frequencies and percentages of the categorical variables, a descriptive analysis was performed to illustrate the general characteristics of the study participants. We used correlation analysis, as well as single and multiple linear regression analyses, to identify the extrinsic and intrinsic factors influencing respondents' productivity. IBM SPSS software version 25 was used to analyze the data. All tests were two-sided, with a p-value of (0.05) considered significant.

RESULTS

Socio-demographic characteristics of respondents

There were 46 medical officers, 95 nurses, 22 pharmacists, and 37 medical technologists who participated in this study. Out of the 200 healthcare professional participants, 14.3% were male, and 83.7% were female.

Table 1. Socio-demographic characteristics of participants (n=200)

Characteristics	Frequency	Percentage
Gender		
Male	24	12
Female	176	88
Age group		
21 – 30 years	154	77
31 – 40 years	41	20.5
Over 40 years	5	2.5
Occupation		
Medical officer	46	23
Nurse	95	47.5
Pharmacist	22	11
Medical Technologist	37	18.5
Education		
Diploma	31	15.5
Bachelor's degree	161	80.5
Master's degree	8	4
Working experience		
1 – 4 years	120	60
4 – 7 years	52	26
More than 7 years	28	14
Current salary (Kyats)		
200,001 – 500,000	102	51
500,001 – 800,000	91	45.5
More than 800,000	7	3.5

Most of the respondents belonged to the young age group which was 21 to 30 years which represented (77%)

Table 2. Descriptive statistics for the likert-scale questionnaire of extrinsic, intrinsic motivation and productivity

Items	SD	D	N	A	SA	Mean	SD
Extrinsic motivation							
The salary I get from the hospital is enough	33 (16.5)	68 (34.0)	48 (24.0)	45 (22.5)	6 (3.0)	2.80	1.10
I get praise and recognition for doing a good job	30 (15.0)	64 (32.0)	57 (28.5)	48 (24)	1 (0.5)	2.81	1.03
My job provides steady and secure employment	9 (4.5)	34 (17.0)	63 (31.5)	73 (36.5)	21 (10.5)	3.35	0.99
My hospital has good employment policies	18 (9.0)	47 (23.5)	70 (35.0)	54 (27.0)	11 (5.5)	3.05	1.03
I never feel my work is overloaded and working too long	50 (25.0)	56 (28)	35 (17.5)	51 (25.5)	8 (4.0)	2.70	1.25
Intrinsic motivation							
My job provides chances for advancement in my future career	10 (5.0)	32 (16.0)	48 (24.0)	93 (46.5)	17 (8.5)	3.57	0.98
I am happy and enjoy working in this hospital	3 (1.5)	27 (13.5)	57 (28.5)	102 (51.0)	11 (5.5)	3.50	0.85
I feel proud to work as a healthcare professional in this hospital	2 (1.0)	10 (5.0)	20 (10.0)	133 (66.5)	35 (17.5)	3.96	0.74
I have a good relationship with my supervisor and co-workers	1 (0.5)	1 (0.5)	21 (10.5)	143 (71.5)	34 (17.0)	4.04	0.58
I am satisfied to work as a healthcare professional in this hospital	1 (0.5)	7 (3.5)	35 (17.5)	121 (60.5)	36 (18.0)	3.92	0.73
Productivity							
I execute defined duties as work plan and standards	2 (1.0)	1 (0.5)	1 (0.5)	92 (46.0)	104 (52.0)	4.48	0.64
I submit a report on performed duties on time	1 (0.5)	0 (0)	14 (7.0)	106 (53)	79 (39.5)	4.31	0.65
All the assigned duties meet deadlines	1 (0.5)	3 (1.5)	6 (3.0)	93 (46.5)	97 (48.5)	4.41	0.67
This organization motivates me to go above and beyond in my role	15 (7.5)	30 (15.0)	60 (30.0)	66 (33.0)	29 (14.5)	3.32	1.12
I put discretionary effort into my work	2 (1.0)	2 (1.0)	18 (9.0)	117 (58.5)	61 (30.5)	4.17	0.71
I collaborate with my colleagues to carry out departmental assigned tasks	1 (0.5)	1 (0.5)	4 (2.0)	84 (42.0)	110 (55.0)	4.51	0.62
I support my team members	2 (1.0)	0 (0)	9 (4.5)	83 (41.5)	106 (53.0)	4.46	0.68
We can perform to achieve departmental goals in the set budget period	1 (0.5)	0 (0)	20 (10.0)	98 (49.0)	81 (40.5)	4.29	0.68

** Correlation is significant at the 0.01 level (2-tailed).

SD, Strongly Disagree; D, Disagree; N, Neutral; A, Agree; SA, Strongly Agreed; SD, Standard Deviation

of the participants. Most participants were bachelor's degree holders (80.5%), followed by diploma holders (15.5%) and master's degree holders (4%). Among them, 60% of respondents have 1 to 4 years of experience in healthcare, 26% have 4-7 years, and 14% have more than 7 years. Regarding monthly income salary, 51% of respondents earn between 200,000 and 500,000 kyats each month, and 45.5 % earn between 500,000 and 800,000 kyats. Only 3.5 percent gets above 800,000 kyats (see Table 1).

Assessment of extrinsic motivation

The extrinsic motivational factors of healthcare professionals at City Hospital were not strong enough with a mean value of 2.94 (see Table 2). Most of the healthcare professionals indicated that they were not motivated by existing extrinsic motivating factors, and only a small percentage found current extrinsic

motivating factors to be satisfactory. Everyone prefers extrinsic motivation. Not all extrinsic factors were made available to healthcare professionals in City Hospital. Most healthcare professionals, particularly nurses, believe that their salary and bonus are unmotivating and that their workload exceeds their capabilities.

Assessment of intrinsic motivation

The intrinsic motivation of healthcare professionals at City Hospital was good, with a mean value of 3.80 (see Table 2). The healthcare professionals, working as nurses or doctors or pharmacists, or medical technologists at City Hospital, enjoy or prefer their profession and the challenging nature of healthcare. They thrive on having responsibilities that give them a sense of control and get a call from the recognition and respect they get from patients and their guardians. Moreover, intrinsically motivated healthcare professionals are satisfied with the view that being a doctor or nurse is a noble profession, and there are prospects for career development in both the short and long term, which indicates that a healthcare profession.

Assessment of Productivity

Regarding productivity, the overall performance is 4.24, which reaches a good productivity level. The maximum mean value of 4.51 represents healthcare professionals collaborating with their colleagues to carry out the departmental assigned tasks. The second highest mean value of 4.48 shows they execute defined duties such as work plans and standards. The two lowest mean values are 4.17 and 4.29, which means they put discretionary effort into their work, and they can perform to achieve departmental goals in the set budget period (see Table 2).

Table 3. Correlations between extrinsic and intrinsic motivation factors and productivity

Variables	(1)	(2)	(3)
1. Productivity	1		
2. Intrinsic Motivation	0.464**	1	
3. Extrinsic Motivation	0.224**	0.358**	1

** Correlation is significant at the 0.01 level (2-tailed).

Correlations between extrinsic, intrinsic motivation and productivity

Table (3) indicates extrinsic motivation is significantly correlated with productivity ($r = 0.224$, $p < 0.001$) and intrinsic motivation is also significantly correlated with productivity ($r = 0.464$, $p < 0.001$). Therefore, there was a strong positive correlation between extrinsic motivation, intrinsic motivation factors, and productivity. The results of the study found a strong positive relationship between intrinsic motivation and healthcare professionals' productivity. Therefore, if the intrinsic motivation of the employees is increased, that will also increase the productivity level.

Regression analysis of motivation predicting productivity

A multiple linear regression was calculated to predict productivity based on extrinsic and intrinsic motivation (see Table 4). A significant regression equation was found ($F(2, 197) = 38.884$, $p < 0.001$), with an adjusted R^2 of 0.276. Participants' predicted productivity is equal to 1.372 + 0.194 Extrinsic Motivation + 0.437 Intrinsic Motivation. The adjusted R-squared is 0.276, indicating that extrinsic and intrinsic motivation could explain 27.6 percent of the variation in healthcare professional productivity. That means productivity is influenced by two variables of motivation, such as extrinsic and intrinsic motivation. Between the two motivational factors, intrinsic motivation had a stronger influence on the productivity of healthcare professionals at a 1% level, with a coefficient of 0.437. Besides, extrinsic motivation has a positive significant influence on the productivity of healthcare professionals at a 1% level as well, with a coefficient of 0.194. According to the results, the extrinsic and intrinsic motivation factors can improve the productivity of healthcare professionals at 0.01 significant levels. According to the findings, extrinsic and intrinsic motivation are strongly influenced in determining healthcare professionals' productivity.

Table 4. Regression analysis summary for motivation predicting productivity

Predictors	b	SE	t	p
(constant)	1.372	0.287	4.779	<0.001*
Extrinsic motivation	0.194	0.045	4.320	<0.001*
Intrinsic motivation	0.437	0.067	6.525	<0.001*

** Significant at the 0.01 level (2-tailed).

DISCUSSION

A descriptive-analytical study was conducted at City Hospital to investigate the effect of motivation on the productivity of healthcare personnel. This survey included 200 healthcare experts in total. Correlation

analysis was performed to investigate the relationship between extrinsic and intrinsic motivational factors and productivity. The influence of extrinsic and intrinsic motivating factors on productivity was investigated using regression analysis.

In the study, most of the healthcare professionals indicated that they were not motivated by existing extrinsic motivational factors because not all extrinsic factors were made available to healthcare professionals in the hospital. Studies have confirmed that motivation factors are essential and natural. However, they differ based on the profession and the work environment of the employees. Most people who work in health care feel that the salary and bonus don't motivate them and that the amount of work is more than they can handle, especially nurses. This study is in line with Herzberg's two-factor theory because the theory suggests that salary is a motivator but that after some time, it tends to become a (hygiene factor) for employees.

Moreover, healthcare professionals enjoy or prefer their profession and the challenging nature of healthcare; they thrive on having responsibilities that give them a sense of control and get a call from the recognition and respect they get from patients and their guardians. They are satisfied with the view that being a doctor or nurse is a noble profession, and there is a prospect for career development in both the short and long term and indicated that a healthcare profession. As noted by Kosteas (2011) [7], intrinsic motivational factors are important for achieving productivity and satisfaction. Based on the research, extrinsic and intrinsic motivation factors can improve the productivity of healthcare professionals, and it is proved that there is a strong positive direct relationship between work motivation (extrinsic and intrinsic) and employee productivity. The findings from the research are aligned with the studies of Christian et al., (2011) [8] and Chalofsky & Krishna (2009) [9], which suggest that there is a link between productivity and motivational factors (contextual as well as individual factors). May et al. (2004) [10] also relate employee productivity to motivation. Fairlie (2011) [11] and Macey & Schneider (2008) [12] both said that more research is needed to find the link between what motivates people at work and how well they do their jobs.

This is a cross-sectional study on the productivity of healthcare professionals at Mandalay City Hospital. More research on healthcare personnel's motivation is required at other public and private hospitals to reflect the results to the broader population. Because motivation is a dynamic condition, longitudinal research is required to track changes in the impact of extrinsic and intrinsic motivational factors on employee productivity over time.

Based on the key findings, it is suggested that the following may have implications for this study. To begin, hospital management should implement tailored motivational tactics for each healthcare professional's group by talking with representatives of healthcare professionals to set up appropriate motivating materials for each group. As a result, a motivating policy and strategy should address each group's personal professional-based desire. Second, it is proposed that study be conducted to determine which extrinsic variables can inspire healthcare providers. Furthermore, motivation policy guidelines targeted at enhancing the job productivity of City Hospital's healthcare personnel should be implemented by establishing appropriate salary scales and allowances that are in keeping with the present economic environment. Workload and financial incentives are important factors in increasing the work performance of healthcare personnel at City Hospital.

However, it is critical to emphasize teamwork among healthcare professionals, as well as between healthcare professionals and the management team, and its impact on productivity, responsiveness, job satisfaction, absence, and staff turnover, all of which require additional research to address some of the identified limitations.

CONCLUSION

In conclusion, healthcare professionals were not motivated by extrinsic factors, especially since they were not satisfied with their current workload and the salary and benefits that they got from the hospital. On the other hand, healthcare professionals were intrinsically motivated because of the nature of their work and a happy and pleasant working environment. The study shows that there is a strong link between extrinsic and intrinsic motivation and the amount of work done by healthcare workers at City Hospital.

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Institutional Review Board Statement: The study was conducted in accordance with the Declaration of Helsinki and

approved by the Ethics Committee of YEC Learning Center, Mandalay, Myanmar, in MBA Course, which is affiliated with Lincoln University College, Malaysia.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study as well as to publish this paper.

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