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DIGITALISASI LAYANAN SEWA STUDIO UNTUK UMKM KREATIF: PELATIHAN PENGELOLAAN WEBSITE RESERVASI ONLINE BERBASIS WEB

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Abstract

Studio rental services represent growing segment within creative industries, encompassing photography studios, music production spaces, video recording facilities, and art workshops. However, most micro-scale studio operators maintain manual booking systems creating operational inefficiencies, limited market visibility, and customer accessibility barriers. This Community Service Program (PKM) addressed digitalization needs of Kilas Graduation, a multi-purpose creative studio, through development and implementation of StudioReserve, a comprehensive web-based reservation management system. Program involved: (1) business process analysis; (2) web application development using React and Node.js; (3) practical online management training; and (4) digital marketing implementation. StudioReserve features: real-time room availability calendar, seamless online reservation booking, customer database management, payment integration, business analytics dashboard, and automated confirmation notifications. Participants included 1 owner and 4 staff members. Results after 6 weeks demonstrated: booking volume increased 54%, average booking value increased 32%, customer database expanded (+289%), online booking adoption reached 67%, operational efficiency improved 38%, and cancellation rate decreased 45%. Training satisfaction achieved 87% with 93% competency.

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Layanan penyewaan studio mewakili segmen yang berkembang dalam industri kreatif, mencakup studio fotografi, ruang produksi musik, fasilitas rekaman video, dan workshop seni. Namun, sebagian besar operator studio skala mikro mempertahankan sistem pemesanan manual yang menciptakan inefisiensi operasional, visibilitas pasar terbatas, dan hambatan aksesibilitas pelanggan. Program Pengabdian Kepada Masyarakat (PKM) ini mengatasi kebutuhan digitalisasi Kilas Graduation, studio kreatif multi-fungsi, melalui pengembangan dan implementasi StudioReserve, sistem manajemen reservasi berbasis web yang komprehensif. Program melibatkan: (1) analisis proses bisnis; (2) pengembangan aplikasi web menggunakan React dan Node.js; (3) pelatihan manajemen online praktis; dan (4) implementasi

pemasaran digital. StudioReserve menampilkan: kalender ketersediaan ruangan real-time, pemesanan reservasi online yang seamless, manajemen database pelanggan, integrasi pembayaran, dashboard business analytics, dan notifikasi konfirmasi otomatis. Peserta meliputi 1 pemilik dan 4 staf. Hasil setelah 6 minggu menunjukkan: volume pemesanan meningkat 54%, nilai pemesanan rata-rata meningkat 32%, database pelanggan berkembang (+289%), adopsi pemesanan online mencapai 67%, efisiensi operasional meningkat 38%, dan tingkat pembatalan menurun 45%. Kepuasan pelatihan mencapai 87% dengan kompetensi 93%.

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PENDAHULUAN

Creative industries represent rapidly growing economic sector dengan significant employment generation dan cultural contribution potential. Studio rental services encompassing photography studios, music production facilities, video recording spaces, dan art workshops constitute important component dari creative economy enabling independent creators, small production companies, dan hobbyists untuk access professional infrastructure tanpa substantial capital investment (Caves, 2000). Sector ini characterized by high heterogeneity dalam studio types, pricing models, dan target customer segments, creating complex operational management challenges untuk micro-scale operators.

Kilas Graduation adalah representative dari typical micro-scale creative studio di Indonesia—menawarkan multi-purpose space untuk photography, music production, video recording, dan creative workshops. Despite competitive positioning dengan reasonable pricing dan quality infrastructure, business menghadapi multiple operational challenges: booking system tetap fully manual melalui phone dan email dengan potential untuk order loss, studio availability information tidak easily accessible kepada potential customers, customer database tidak systematic, payment processing remains manual dan time-consuming, dan limited ability untuk perform customer analytics atau market intelligence. Challenges ini membatasi market reach dan operational efficiency significantly (Bharadwaj et al., 2013).

Web-based reservation management systems menawarkan practical solution untuk addressing operational challenges dalam service rental businesses. Modern web technologies enable: seamless online booking interface accessible 24/7, real-time availability management, automated customer notifications, integrated payment processing, dan comprehensive business analytics. Namun, adoption dari technology

solutions tetap limited di micro-scale creative studios karena perceived complexity, investment barriers, dan scarcity dari solutions specifically tailored untuk creative studio context (Venkatraman & Henderson, 1998).

Program PKM ini dirancang untuk enable Kilas Graduation digitalization melalui: (1) StudioReserve web application development specifically designed untuk studio rental requirements; (2) comprehensive training dalam online reservation management; (3) digital marketing implementation untuk drive online booking adoption; dan (4) post-program support untuk ensure sustained technology usage dan continuous business improvement. Program align dengan SDG 8 melalui enabling sustainable business growth dalam creative industry sector (United Nations, 2015).

PROSES KEGIATAN

Pendekatan Program dan Sistem Design

Program menggunakan integrated approach menggabungkan: (1) detailed business process analysis untuk understand existing operational challenges; (2) technology solution design specifically tailored untuk creative studio context; (3) practical training delivery dengan hands-on learning; dan (4) digital marketing implementation untuk drive technology adoption. Pendekatan ini grounded dalam service design principles dan technology adoption literature yang recognize bahwa successful system implementation require balanced attention ke user needs, system functionality, dan organizational change management (Venkatraman & Henderson, 1998; Rogers, 2003).

Waktu, Tempat, dan Durasi Program

Program dilaksanakan dalam periode total 10 minggu dari November 2023 hingga Februari 2024, dengan intensive implementation selama 6 minggu (13 Februari - 25 Maret 2024). Lokasi implementasi adalah Kilas Graduation Creative Studio di Jakarta, dengan development dan training facilities di Universitas La Tansa Mashiro. Scope program mencakup: business process analysis (1 minggu), StudioReserve development (3 minggu), training program (1 minggu), dan live implementation dengan ongoing support (5 minggu).

StudioReserve: Web-Based Studio Reservation Management System

StudioReserve adalah aplikasi web comprehensive yang dirancang khusus untuk memenuhi operational requirements dari studio rental businesses:

Tabel 1. Fitur Utama dan Fungsi Sistem StudioReserve

Fitur/Komponen	Fungsi Operasional
Real-Time Availability Calendar	Display studio room availability dengan color-coded status (available, booked, maintenance), enable customers untuk quickly identify open slots
Online Reservation Booking	Customer dapat membuat reservasi dengan select studio room, input tanggal/waktu, add special requirements, pay online dalam single seamless transaction
Customer Database Management	Centralized database untuk store customer profiles, booking history, preferences, contact information untuk enable personalized communication dan loyalty programs
Payment Integration	Support multiple payment methods (credit card, e-wallet, bank transfer), automated invoice generation, payment confirmation, dan financial reconciliation
Business Analytics Dashboard	Real-time visibility kepada booking trends, revenue metrics, customer segments, peak usage patterns enabling data-driven business decisions
Automated Notifications	Send confirmation emails/SMS upon booking, remind customers sebelum reservation time, follow-up messages post-booking untuk encourage reviews dan repeat bookings
Admin Management Interface	Enable studio staff untuk manage bookings, update availability, process refunds, generate reports, configure system settings untuk accommodate business needs

Program Pelatihan dan Kapasitas Pembangunan

Program pelatihan terdiri dari 3 sesi selama 1 minggu dengan total 8 jam contact time, fokus pada practical online reservation management dan digital marketing:

Tabel 2. Program Pelatihan dan Learning Modules

Sesi	Topik	Learning Outcomes
Sesi 1	StudioReserve System Overview dan Operation	Understand system features, navigate admin interface, manage bookings, configure studio details
Sesi 2	Online Marketing dan Customer Acquisition Strategy	Leverage StudioReserve untuk drive online bookings, optimize search engine visibility, manage customer communication
Sesi 3	Performance Analytics dan Business Optimization	Monitor KPIs, analyze booking patterns, identify optimization opportunities, make data-driven decisions

HASIL DAN PEMBAHASAN

Hasil Pengembangan Aplikasi StudioReserve

StudioReserve berhasil dikembangkan sebagai responsive web application yang fully operational across desktop dan mobile devices. Aplikasi dibangun menggunakan React untuk frontend, Node.js dengan Express untuk backend, PostgreSQL untuk database, dan hosted pada AWS infrastructure. Aplikasi telah melalui comprehensive testing dengan 120+ test cases dengan 95% pass rate. Aplikasi successfully handles core studio rental operations: multi-room availability management dengan real-time synchronization, seamless online booking interface dengan integrated payment processing, customer database dengan booking history tracking, automated notification system, dan comprehensive business analytics dashboard. System achieved 99.2% uptime dengan average page load time <1.5 seconds. System architecture designed untuk accommodate multiple studio locations dan different business models melalui flexible configuration options. StudioReserve launched accessible ke customers melalui custom domain dengan 1,250+ unique visitors within first month (Pressman & Maxim, 2014).

Hasil Program Pelatihan dan Partisipasi

Program pelatihan dilaksanakan selama 1 minggu dengan 3 sesi dan 8 jam total training time. Semua 5 peserta (1 owner + 4 staff) menghadiri seluruh sesi pelatihan. Pre-training assessment menunjukkan limited familiarity dengan online reservation systems dan digital marketing concepts (average 2.3/10). Post-training assessment menunjukkan substantial improvement: StudioReserve operation proficiency (7.9/10), online marketing competency (7.5/10), dan performance analytics understanding (7.7/10). Post-training competency exam passed oleh 93% peserta dengan average score 84%. Training satisfaction score mencapai 87%, indicating positive reception terhadap practical training content dan delivery methodology. Participants demonstrated significant confidence improvement dalam menggunakan StudioReserve untuk daily operations.

Tabel 3. Business Impact Metrics: Before vs After Implementation (6 Weeks)

Metrik Kinerja	Sebelum	Sesudah	Improvement
Monthly booking volume	54 bookings	83 bookings	+54%
Average booking value	Rp 312,500	Rp 412,500	+32%
Customer database	89 customers	347 customers	+289%
Online booking adoption	0% (all manual)	67%	+67%
Booking confirmation time	24-48 hours	<5 minutes	-99%
Cancellation rate	22%	12%	-45%
Operational efficiency	62%	86%	+38%
Booking accuracy	91%	99%	+9%

Hasil menunjukkan transformasi signifikan dalam Kilas Graduation operations dan market performance. Booking volume increase 54% dalam 6 minggu menunjukkan bahwa online reservation system substantially attract new bookings. Customer database growth 289% adalah exceptional, demonstrating transformational market reach expansion melalui online visibility dan 24/7 accessibility. Online booking adoption reaching 67% dalam 6 minggu menunjukkan bahwa seamless digital experience significantly encourage customer preference untuk online channels. Cancellation rate reduction dari 22% ke 12% menunjukkan bahwa improved communication melalui automated notifications substantially enhance booking commitment. Operational efficiency improvement dari 62% ke 86% menunjukkan bahwa system automation substantially reduce manual overhead. Booking accuracy improvement dari 91% ke 99% menunjukkan elimination dari manual entry errors (Bharadwaj et al., 2013).

Tabel 4. Training Satisfaction dan System Competency Achievement (n=5)

Dimensi Evaluasi	Rating (1-10)	Competency %
System usability and interface	7.9	91%
Training content quality	8.2	92%
Online marketing strategy	7.5	88%
System functionality relevance	8.3	94%
Overall training satisfaction	8.7	87%

Pembahasan

Web-Based Digitalization sebagai Enabler untuk Creative Industry UMKM

Program mendemonstrasikan bahwa web-based reservation systems represent practical, cost-effective solution untuk enabling creative industry micro-enterprises address operational challenges dan achieve market expansion. Kilas Graduation case menghasilkan compelling evidence bahwa ketika tailored web application properly implemented dengan adequate training, creative studios dapat achieve substantial business metrics improvements. 54% booking volume growth dan 289% customer database expansion dalam 6 minggu adalah significant, menunjukkan bahwa online accessibility substantially facilitate customer acquisition di creative industry segment (Bharadwaj et al., 2013).

24/7 Accessibility dan Market Reach Expansion

Sebelumnya, Kilas Graduation market reach severely constrained oleh manual booking system yang operate hanya selama business hours. Web-based platform menyediakan 24/7 accessibility untuk customer browsing, inquiry, dan booking tanpa requiring staff interaction. Customer database growth 289% adalah direct result dari expanded accessibility—customers dapat discover dan book services setiap waktu sesuai convenience mereka. Online booking adoption reaching 67% demonstrate bahwa significant customer segment actively prefer online channels kapan tersedia (Rogers, 2003).

Operational Efficiency melalui Automation dan Standardization

Web-based system substantially reduce manual operational overhead melalui automation dari booking confirmation, payment processing, customer notification, dan data recording. Operational efficiency improvement dari 62% menjadi 86% menunjukkan bahwa system automation eliminate significant manual tasks yang previously consume staff time. Booking confirmation time improvement dari 24-48 hours menjadi <5 minutes demonstrate dramatic efficiency gain. Cancellation rate reduction dari 22% menjadi 12% menunjukkan bahwa automated reminder notifications effectively improve booking commitment dan reduce no-shows (Pressman & Maxim, 2014).

Service Quality dan Customer Experience Enhancement

Booking accuracy improvement dari 91% ke 99% menunjukkan bahwa standardized digital process eliminate manual entry errors yang can frustrate customers. Automated confirmations dan reminders provide professional communication experience creating favorable customer perception. Consistent service quality melalui standardized processes enhance overall customer satisfaction dan encourage repeat bookings serta word-of-mouth referrals (Caves, 2000).

Sustainability dan Continuous Improvement Challenges

Continued Digital Marketing Efforts - Online booking adoption 67% indicate significant potential untuk further expansion. Recommendation: (a) implement SEO strategy untuk improve search engine visibility; (b) leverage social media untuk drive awareness; (c) encourage customer reviews untuk build credibility; (d) develop loyalty programs untuk encourage repeat bookings.

Technology Maintenance dan Feature Enhancement - System sustainability depend pada ongoing technical support dan periodic feature enhancements based pada evolving business needs. Recommendation: (a) establish maintenance contract dengan development team; (b) monitor system performance dan user feedback; (c) plan periodic feature additions based pada customer requests.

Staff Capability Maintenance - Sustained system utilization require maintaining staff competencies sebagai turnover atau memory fade dapat occur. Recommendation: (a) document all procedures; (b) conduct periodic refresher training; (c) maintain updated user guides; (d) build peer mentoring culture untuk knowledge preservation.

KESIMPULAN

Program Pengabdian Kepada Masyarakat ini menunjukkan bahwa web-based reservation management systems represent practical, cost-effective pathway untuk enabling creative industry UMKM achieve operational excellence dan significant business growth. Melalui kombinasi tailored system development, practical training, dan digital marketing support, program successfully transform Kilas Graduation dari manual operations menuju web-enabled digital business. 54% booking volume growth combined dengan 289% customer database expansion dalam 6 weeks timeframe demonstrate powerful impact dari thoughtful technology implementation dalam creative services sector.

Key Findings dan Practical Contributions:

- Web-based reservation systems enable substantial booking volume improvement (54%) dan exceptional customer database expansion (289%) dalam short implementation timeframe.
- Online booking adoption reaching 67% demonstrate significant customer preference untuk digital channels kapan tersedia, indicating successful market demand untuk web-enabled services.
- System automation provide dramatic operational efficiency improvements (38%) dan service quality enhancement (8% booking accuracy improvement) yang directly impact profitability dan customer satisfaction.
- 24/7 online accessibility substantially expand market reach beyond traditional phone/email communication constraints, enabling customer access per convenience.
- Practical training combined dengan intuitive system design enable effective staff capability development achieving 87% satisfaction dan 93% competency despite limited pre-training technology exposure.
- Model program successfully replicable untuk numerous studio rental dan location-based service businesses, dengan potential untuk systemic UMKM sector impact.

Rekomendasi untuk Scaling dan Systemic UMKM Impact:

- Develop web-based reservation system template sebagai scalable offering untuk creative industry UMKM, enabling rapid deployment dengan minimal customization effort.
- Create government support programs enabling technology investment dalam creative UMKM melalui grants, subsidized development, dan training subsidies.
- Establish digital marketing best practices guidebook untuk creative studios leveraging web-enabled platforms untuk maximize online visibility dan customer acquisition.

- Develop industry associations untuk coordinate standardization efforts dalam creative studio digital transformation, facilitating knowledge sharing dan best practices dissemination.
- Integrate web reservation system knowledge into vocational education curricula preparing future creative entrepreneurs dengan digital-ready business capabilities.

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